Pastoral Women and Sedentism: Milk Marketing by Ariaal Rendille Females of Northern Kenya

by

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ABSTRACT

Pastoral Women and Sedentism: Milk Marketing by Ariaal Rendille Females of Northern Kenya is a study on women's socio-economic roles and activities within a contemporary East African pastoral society. It also explores the challenges which females face as pastoral societies become more fully sedentary and integrated into the formal economy. The thesis begins with a composite literature review of related issues and findings, providing a contextual framework for the core investigations. In the focal section, the document outlines two separate studies undertaken in 1995 fieldwork with Ariaal Rendille pastoral women of Karare, northern Kenya. One investigation covers the economic-specifics of female milk marketing, while the other explores women's 'emic' perspectives on issues related to sedentism. These studies indicate that Ariaal milk marketing depletes household milk supplies and milk sale earnings barely facilitate household survival. Conditions are worse for Ariaal women as a result of sedentism.

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INTRODUCTION

These investigations focus upon pastoral women and their socio-economic roles within contemporary East African pastoral households. In many ways, the study attempts to 'realize' pastoral females and the challenges they face as pastoral societies become more fully sedentary and more deeply integrated into the wider state and political economies. The thesis begins with a composite literature review of issues and findings related to East African pastoral women. This information provides a contextual framework for the core investigations. In the focal section, the thesis documents two separate studies which were undertaken during 1995 summer fieldwork with sedentary Ariaal Rendille pastoral women of Karare, Marsabit District, northern Kenya. One investigation covers the economic-specifics of Ariaal female milk marketing, while the other explores the 'emic' perspectives of Ariaal women on issues related to sedentism. The material provides detailed analyses of quantitative and qualitative results. In a final assessment of Ariaal milk marketing and sedentary conditions for women, the document offers an 'etic' perspective and compares these research findings with those from other related studies on pastoral women.

There is a three-fold purpose for the investigations, the first being related to theoretical concerns. Although research about pastoral women has increased over the past two decades, the existing analytical framework continues to be androcentric and heavily laden with male bias, making insertion of new data on pastoral women difficult. A reformulation of the framework is in order, which can only be done with case materials which better represent pastoral women. The thesis seeks to contribute in such a way.

The second purpose for the investigations is that the thesis is an offspring of a

three-year parent project, entitled *Concomitants of Sedentism and Female Milk Marketing for Ariaal Rendille Pastoralists of Northern Kenya*. Both the thesis study and parent project fall under the supervision of Dr. Eric A. Roth, Department of Anthropology, University of Victoria, Victoria, British Columbia, Canada. Both were supported by the Social Sciences and Humanities Research Council of Canada (SSHRC). The main thrust of the parent project is to examine the social and biological concomitants of female milk marketing, ultimately assessing whether women's milk sales benefit Ariaal Rendille child health, growth and nutrition. This is to be done in collaboration with a National Science Foundation (NSF) funded project entitled *Social, Demographic, and Health Consequences of Pastoral Sedentarization in Marsabit District, Kenya*, the investigators of which are Dr. Elliot Fratkin (Smith College), Dr. Eric A. Roth (University of Victoria), Dr. John Galaty (McGill University) and Dr. Martha Nathan (Medical Practitioner). The findings in this thesis therefore constitute one 'part' of a concerted effort directed towards the betterment of pastoral socio-economic, nutritional and health conditions in northern Kenya.

A third aim of the thesis is to demonstrate that anthropological Rapid Assessment Procedure (RAP) can be successfully applied in short-term fieldwork undertaken by students at the master's level. All fieldwork investigations documented within the thesis were carried out using procedures specific to RAP (see Chapter 6, section 6.4), which enabled a generous collection of reliable quantitative and qualitative data over a five-week period. RAP is not only cost-effective, but is time-saving and its truncation of the research process makes it a valuable tool for any master's student contemplating thesis-

related studies in the field.

The remainder of this chapter outlines the methods and scope of investigation undertaken in the thesis. The literature review is contained in Chapters 2 - 5, inclusively. Chapter 2 introduces East African pastoralism, presenting background information and a broad overview of related issues and concerns. It covers past trends in pastoralist research and, noting the androcentric framework underlying many ethnographic accounts, the chapter explores possible reasons for male bias. The material then outlines the recent feminization of pastoral-related research and illustrates the difficulties which occur when it comes to incorporating newly acquired female perspectives into an outmoded analytical framework.

Chapters 3 and 4 form a synopsis of the current literature on East African pastoral women. Chapter 3 summarizes contemporary views and findings on pastoral women within the context of pastoral relations of production and reproduction. It also offers a thorough examination of the decision-making power that women hold regarding the economics and well-being of pastoral households. Chapter 4 recapitulates literature findings on the complex changes which pastoral women face as East African pastoralist societies become more fully sedentary and integrated into wider market economies. This material also explores previous findings on the African perception of gender responsibilities *vis-a-vis* pooling/nonpooling of household income, household food provisioning costs, plus other expenditures. As precursor to the review contained in Chapter 5, Chapter 4 concludes with five brief case studies (the Maasai, the Nigerian Fulani, the Baggara of Sudan, and female pastoralists of both Somalia and Ethiopia)

which illustrate variations in the economic strategies of female milk marketing and other income-generating activities of pastoral women.

While finalizing the review, Chapter 5 also serves as a prelude to my investigations with Ariaal women. The chapter commences with descriptions of the Ariaal Rendille pastoralists of northern Kenya, their physical environment, geo-political surroundings, socio-economic structure and prominent cultural practices. The chapter additionally outlines previous and contemporary studies on Ariaal, with specific reference to research pertaining to Ariaal's current transition to sedentism. Among the latter is Fratkin and Smith's (1995) work which describes the various economic strategies pursued by Ariaal Rendille women. Based on their 1992 research in northern Kenya, these investigators note that women walked from Karare to Marsabit market to sell milk daily. It was these initial investigations of Fratkin and Smith (1995) that gave rise to the milk marketing study contained in this thesis.

Chapter 6 documents my personal field research with the Ariaal. The chapter commences with descriptions of the Ariaal study population, investigative materials, and aims of *The Ariaal Rendille Milk Marketing Study* (Appendix A) and *The Ariaal Rendille Group Questionnaire* (Appendix B). *The Ariaal Rendille Milk Marketing Study* was a quantitative investigation aimed at understanding milk production, offtake and sales income of Ariaal marketers and was designed for household level of analysis. The study sought to identify Ariaal milk marketers and the causal factors precipitating women's milk sales. It also endeavoured to determine the gainfulness of the Ariaal milk trade. Other quantifiable data were sought regarding women's allocations of earnings from milk

sales, type of food items purchased, women's annual incomes, pooling or nonpooling of household incomes, female perceptions regarding child food provisioning responsibilities, extent of women's networking, and time allocations for women's marketing and domestic activities. Respondents were also asked to refer to women's major difficulties and needs. *The Ariaal Rendille Group Questionnaire* on the other hand, was intended for a qualitative community-level analysis of Ariaal women's perspectives on the advantages and disadvantages of sedentism. Additional information was sought regarding Ariaal opinions on women's milk marketing, possible effects of development and sedentism on women's socio-economic roles, possible changes in Ariaal cultural practices, beliefs and norms surrounding the use of milk, and possible transformations in other areas of Ariaal lives as well.

In addition, Chapter 6 outlines methods of investigation for each study and begins by describing sampling procedures for *The Ariaal Rendille Milk Marketing Study*. In total, 48 women, representing three settlements, participated in the project: 19 from Samburu Kijiji; 15 from Rendille Kijiji; and 14 from Karare-Kulapesa. Sample descriptions are contained in Table 6.1. The chapter also reviews the structured interview process which took place with individual females and describes attempts to cross-check study information in a road-side survey with marketing Ariaal women. The material also discusses issues pertaining to data reliability.

Chapter 6 next describes methods of investigation for *The Ariaal Rendille Group Questionnaire*, beginning with sampling procedures and the interview format. Eight informal focus group interviews were carried out, involving on average, five Ariaal

respondents per group. These participants were either residents of Karare or the agro-pastoral settlement known as the Scheme. The particulars for each focus group are contained in Table 6.2. The chapter also outlines the study's interview process and reviews the strengths and possible pitfalls involved in data reliability. It emphasizes that field investigations were carried out through the use of an anthropological fieldwork method known as Rapid Assessment Procedure (RAP).

Chapter 7 reviews findings from *The Ariaal Rendille Milk Marketing Study*. Data were analyzed at the settlement level *via* use of the *Statistical Analysis Systems* (SAS) computer program. Study results are presented in a series of statistical tables with related discussions. For the most part, details emphasized differences between sample groups of women in terms of their socio-economic circumstances and marketing activities. Accordingly, the chapter concludes with discussions on each of the three settlement samples.

Chapter 8 presents the results of *The Ariaal Rendille Group Questionnaire*. Analysis methods for focus group data included: transcription of audio-tapes recorded during eight focus group interviews; colour-coding of documented sessions; a 'cut and paste' technique for organizing/amalgamating all group responses under recurrent themes and/or categorical headings; and community-level content analysis. Results are presented in an eleven-part series of qualitative descriptive/interpretive reports based on questions contained in *The Ariaal Rendille Group Questionnaire*. The material concludes with discussion and summary of results.

Chapter 9 contains an overall assessment of Ariaal milk marketing and the

sedentary conditions for women. This assessment compares previous research on Ariaal and other pastoral women with findings from *The Ariaal Rendille Milk Marketing Study*, *The Ariaal Rendille Group Questionnaire* and personal observations in the field. In a brief conclusion, Chapter 10 summarizes major findings and recommends ways in which development and/or aid agencies could improve conditions for Ariaal women.

The following chapter introduces East African pastoralism and gives a broad overview of common elements and ethnographic trends. As its foundational device, the thesis presents Chapter 2.

CHAPTER 2

EAST AFRICAN PASTORALISM: COMMON ELEMENTS AND ETHNOGRAPHIC TRENDS

2.1 East African Pastoralism: An Overview

In broad terms, pastoralism can be defined as a mode of subsistence production based upon livestock husbandry, requiring the recurrent movement of herds for animal procurement of water and vegetation (Barfield 1993:4). In East Africa, pastoralism is a "food production system" in which 'traditional' herding societies rely upon their livestock for milk, rather than for meat, or market sales (Fratkin 1991:6). According to Barfield (1993:4), "it is as much a way of life as a way of making a living," for in its 'traditional' form, pastoralism conjoins family members and solidifies the household as the basic unit of production, hence bonding humans to animals, to each other and to the land. Yet with the advent of sedentarization and the incorporation of pastoralism into the market economy, these definitions no longer hold. Previously, the essential core of East African pastoralism was composed of 'relationships' - somewhat spiritual in kind; now it consists of 'economic processes' - generated by Western design.

Geographically, East Africa encompasses southern Sudan, Ethiopia, Somalia, Kenya, Uganda, Rwanda, Burundi, Tanzania, Zimbabwe, Mozambique and parts of South Africa (Barfield 1993; Fratkin *et al.* 1994; Netting 1986). While the general academic trend has been to consider pastoralism in East Africa as a single, homogeneous, but unique unit, because of the cultural emphasis on cattle-raising, in actuality, this area of the African continent hosts the largest diversity of pastoralist societies in all of Africa (Barfield 1993; Fratkin *et al.* 1994). Furthermore, the wide variation in soil composition

of minerals and salt, the inter- and intra-regional fluctuations in the bimodal rainfall pattern, and the diverse topography of East Africa, result in a prolific-to-sparse water, vegetation and rangeland continuum throughout the area as a whole (Marshall 1994; Smith 1992). These differing pastoral environments make it necessary for many pastoralists to raise, and productively rely upon, domesticates other than cattle, such as camels, sheep and goats. To respond adaptively to the ecological factors in each specific environment, pastoralists maintain variations in herd composition, either by diversifying with a mixed-species combination or by specializing in one particular type of livestock (Bonte and Galaty 1991; Fratkin *et al.* 1994; Marshall 1994; Smith 1992; Waller and Sobania 1994).

Contemporaneous pastoral societies have wide variations in production. Some specialize exclusively in livestock, while others maintain mixed economies in agriculture and animal husbandry or smallstock pastoralism and fishing (Fratkin and Smith 1994:91). With few exceptions, most pastoralist societies produce primary products for export as well as for regional trade, and most are highly dependent on both neighbouring agriculturalists and market traders for grain and other commodities (Salih 1990:7; Shorter 1974).

Pursuant to an archaeological search of the past for 'beginnings,' evidence indicates that "distinctively East African forms of pastoralism oriented toward production from domestic herds" (Marshall 1994:24) appeared fully developed in that area of the continent between 3,000 and 4,000 years ago (Marshall 1994; Smith 1992). The data also reflect that around 3,000 B.P. "there was considerable variation and flexibility in

pastoral subsistence strategies" (Marshall 1994:24). The remains of wild game and fish, and domestic animals, vary quantitatively from site to site, denoting that pastoralists adaptively responded to the diverseness of their particular East African environment (Marshall 1994). There is no evidence, however, that agriculture played any major role in East African pastoralist economies (Marshall 1994). To this date, there are still gaps in the archaeological record and thus, the link between prehistoric and contemporary pastoralists cannot be sequentially demonstrated (Marshall 1994:34). Nevertheless, the integration of ethno-historical and linguistic research with archaeological evidence has facilitated the reconstruction of the histories of many so-called 'traditional' East African pastoral groups to within a time-depth of four centuries (Smith 1992).

In the past, academics have often utilized this historical research to stereotype the 'cattle-keepers' of East Africa (Barfield 1993; Shorter 1974). A more recent scholarly approach to pastoralism, however, has been to read between the lines of ethno-historical and ethnographic accounts, and to move away from generalizing in order to present a more dynamic, open systemic view of pastoralism and a less static approach to the concept of 'traditional' (Fratkin *et al.* 1994; Galaty and Bonte 1991). The objective in the remainder of this section therefore, is to describe common elements in East African pastoralism without trying to typify it into one 'traditional' and/or 'contemporary' form.

Regardless of past or present circumstances, the pastoral environment has always been a major determinant in the formation of East African pastoralists' ways and means of production and reproduction (Smith 1992). The ecological continuum, ranging from prolific-to-sparse water and vegetation, overlaps and intersects with the specialized-to-

diversified subsistence economies appearing along the pastoral continuum (Bonte and Galaty 1991). Species-specific specialized pastoralism occurs in lowly populated dry areas and is "in biotic terms a method of extracting protein from otherwise unpalatable cellulose of grasses and shrubs through the secondary use of the products of domestic ruminants" (Bonte and Galaty 1991:10). Viewed from the other end of the continuum, agro-pastoralism is favoured in areas with higher rainfall and moister soils, allowing for more diversity in pastoral subsistence economies (Bonte and Galaty 1991). The role of livestock still influences the subsistence and socio-economic aspects of agro-pastoral life but to a lesser extent than it does within specialized pastoral groups (Bonte and Galaty 1991:7).

Irrespective of whether pastoral groups were, in the past, more specialized or more diversified in their economies, human and herd mobility were major concepts behind successful pastoralist risk management practice (McCabe 1994). Whether it was implemented to exploit seasonal availability of vegetation and water and/or to avoid over-taxation of the environmental base, or whether it was to avoid livestock raids by neighbouring tribes, the movement of populations and herds over large areas of land was essential to the co-adaptive and interrelated functioning of the plant-animal-human food chain (McCabe 1994; Nyerges, 1982). In addition, drought and disease have always been constant factors to contend with in East Africa, thus livestock were carefully bred and valued for their survival ability in the face of such episodes. Ultimately, however, it was mobility which enabled pastoralists to shift and co-manoeuvre within the spatial and temporal fluctuations of rain and/or move herds away from areas where there were high

concentrations of disease-carrying insects and/or parasitic-infested soils (Barfield 1993; Smith 1992; Bonte and Galaty 1991; Waller and Sobania 1994).

Concomitant with environmental factors, pastoralist decisions regarding migration patterns, herd size, species composition, and the age structure and sex ratio of livestock were all intricately interconnected and linked to the demographic factors of the societies themselves. Even in current times, the reproductive replacement rate of each species is considered relative to both herd size and to the magnitude of the pastoral household. On the one hand, the size of a herd must be compatible with the household size and its availability of labour for herd maintenance (Dyson-Hudson and Dyson-Hudson 1980). On the other hand, the number of domesticates is a determining factor in the possible size of the household, in terms of available food supply for its members (Fratkin and Smith 1994; Roth 1990; Waller and Sobania 1994). Taken into the pastoralist's consideration are the factors that smallstock, such as sheep and goats, reproduce rather quickly and their numbers are apt to double within 5 years, whereas the reproductive replacement rate for a herd of camels is, at minimum, 9 years, and for a herd of cattle, 6.5 years (Barfield 1993; Waller and Sobania 1994).

In previous times, such long-range calculations were important for the pastoralist, for livestock served two main purposes - subsistence, and the means for the formation and maintenance of social relationships (Sobania 1991). Human nutritional needs were met primarily *via* the consumption of milk derived from domesticates and through periodic access to blood and meat. The last was utilized only during ceremonial occasions, or in times of extreme hardship. Livestock were kept for their recurrent

byproducts rather than for slaughtering purposes (Barfield 1993; Huss-Ashmore and Katz, eds. 1989; Netting 1986; Spooner and Mann, eds. 1982). This was a "maintenance- rather than production-oriented" (Coughenour *et al.* 1985:619) subsistence system which, in many respects, presupposed the contemporary scientific findings that "energy transfer to humans through milk is both more efficient and more stabilizing than transfer through meat" (Coughenour *et al.* 1985:624).

Livestock also served as important links in pastoral socio-economic and political relationships. Livestock exchanges were, and still are, "intimately connected to the formation and dissolution of households, the determination of descent, the rights and responsibilities of agnates, maternal kin, and affines, the establishment of friendships, and the roles of men and women throughout the life cycle" (Barfield 1993:29). Animals are inheritable property and represent the wealth of a household or individual (Fratkin 1993:7). They are loaned, bartered and exchanged among broad social networks of relatives and friends, forming part of the pastoralist "moral economy" - the safety net for the recovery of those whose livestock were decimated through drought or disease (McCabe 1990:131). This pivotal role which livestock still plays in the ideological and practical aspects of daily pastoralist life will be discussed and demonstrated repeatedly throughout the thesis.

The colonization of East Africa affected pastoral access to the three most needed resources for livestock maintenance - water, grazing land and labour. The creation of international and district boundaries, and the political move towards privatization and agricultural use of land disrupted wide networks of supportive social relationships, both

within and between each East African pastoralist community. Intertribal conflict and strategic vying for control of the remaining water and grazing points increased, resulting in considerable shifting and/or displacement of pastoralist groups due to the expansion, assimilation or annihilation by others (Sobania 1988; Waller and Sobania 1994:50-55).

In their attempt to manoeuvre pastoralist production into the formal economy, colonialists implemented livestock quarantine barriers and market controls, as well as destocking and veterinary intervention/ improvement programs. Pastoral responses varied and ranged from the use of illegal networks of interethnic livestock trade and/or commercial stock raiding, to participation in wage labour for Caucasian farmers and ranchers. Alternatively, on a small agro-pastoralist scale, they began to blend agriculture and herding practices in order to meet their subsistence needs (Waller and Sobania 1994:52-55).

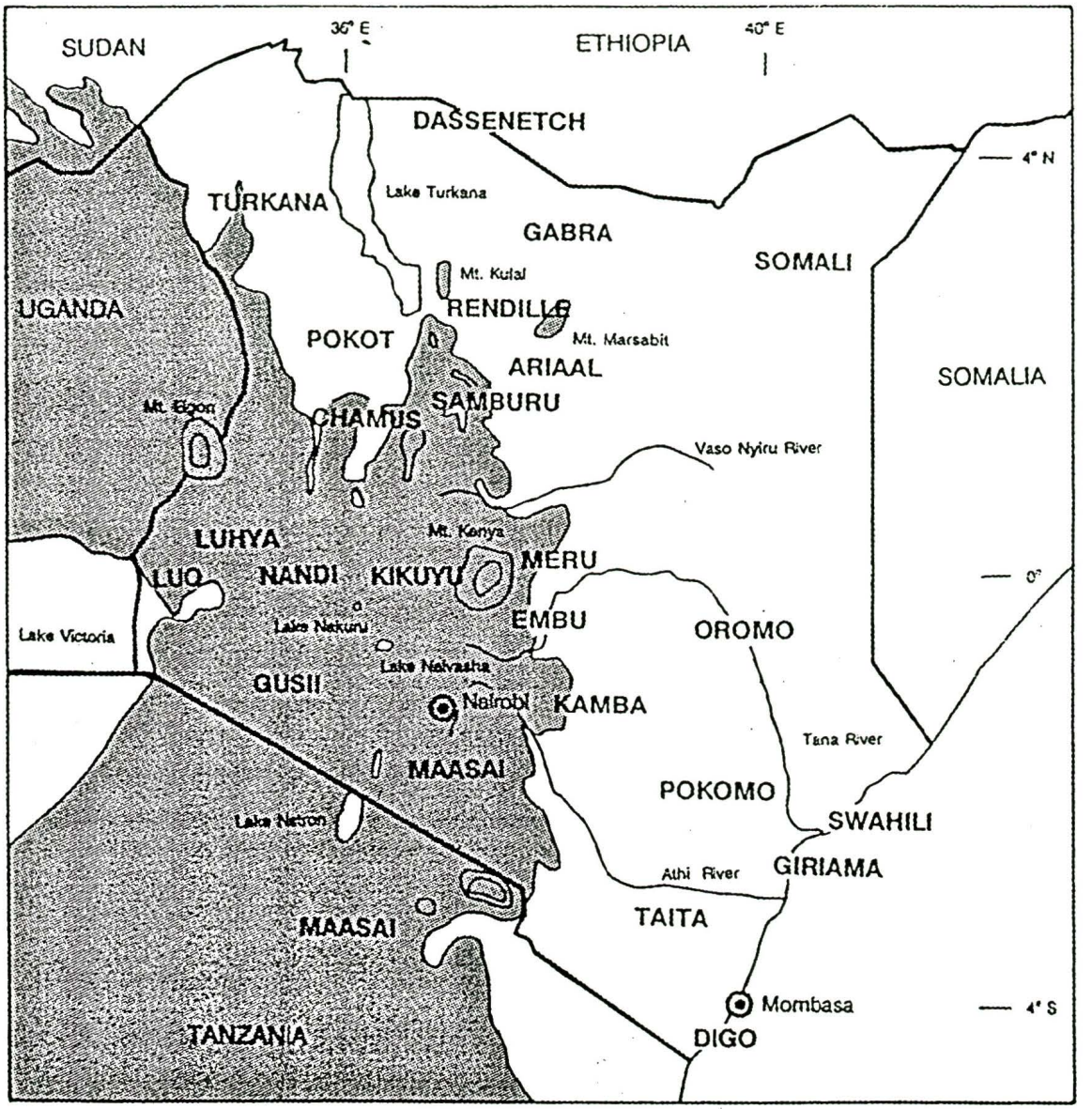
Epidemic disease, which intermittently decimated both human and animal populations, has been another major stress for pastoralists in East Africa. In the 1880s, major outbreaks of bovine pleuropneumonia and rinderpest destroyed many pastoral herds, resulting in widespread famine and human death. In the 1890's, smallpox contributed heavily to pastoralist misfortune, while in the 1900's, tsetse similarly brought widespread death to both pastoralists and their livestock (Fratkin 1991; Sobania 1991; Waller and Sobania 1994). Lengthy sessions of drought, when combined with episodes of disease, resulted in massive pastoralist starvation and death as well as serious desertification of the land (Fratkin 1991). Yet always out of this chaos, pastoralists had been able to regroup, reformulate, restock and continue (Waller and Sobania 1994:60-

63).

This kind of restoration has become progressively more difficult, however. Today, many East African pastoralists live in semi-sedentary villages and take their herds out to graze on a daily basis. Villages are moved only when depleted resources or political stress demand it (Fratkin *et al.* 1994:4). Evidence of such stress is visible in the increased inter-pastoralist armed warfare, with competing tribes fighting for possession of the ever-decreasing land and water resources (Fratkin and Smith 1995). Such troubled events are currently taking place in Kenya, where "population growth, eroding land tenure rights, agricultural expansion, economic transformation and political insecurity are all interrelated problems directly affecting pastoralists today" (Fratkin 1993:3). With the advent of Kenyan Independence (1963), the state administration intensified the colonial practice of privatizing communal grazing lands and converted large parcels of prime pasture into group ranches to be held under elite collective ownership. More recently, the government subdivided parts of the rangeland belonging to group ranches to allow for private ownership of property by individual Kenyan elites (Barfield 1993; Fratkin 1993; Galaty 1994). In addition, the continued loss of grazing land to state-controlled national parks, game reserves and forests has also exacerbated the problems posed for pastoralist existence (Barfield 1993; Galaty 1994; Galaty and Bonte 1991; McCabe *et al.* 1992).

In Kenya, pastoralists presently number 1.5 million, represent only 12 percent of the nation's population and inhabit the arid and semi-arid areas, which make up two-thirds of the state (See Map 2.1) (Barfield 1993:53). The government's push to commercialize and commoditize livestock and derived products *via* large state

Map 2.1 Ethnic Groups of Kenya



(After Fratkin 1991:115. Reproduced with permission of E. Fratkin)

organizations (i.e. Livestock Marketing Division, Department of Agriculture; Kenya Meat Commission; and Kenya Cooperative Creameries) leaves little leeway for any considerations towards the pastoralist's plight (Barfield 1993; Kitching 1980; Little 1994). Since the drought of the 1970s, however, the Kenya Meat Commission has allowed small-scale traders to obtain a fairly decent price for livestock (Smith 1992). Small-scale milk traders, on the other hand, are banned from operating in cities and the Kenya Cooperative Creameries holds a tight monopoly on the dairy distribution market (Little 1994).

Since the 1960s, Western countries, the United Nations and the World Bank have assisted Kenya with funding and/or loans for livestock production and export programs (Fratkin 1991; Smith 1992). Development projects, such as the UNESCO Integrated Project in Arid Lands (IPAL), attempted to integrate pastoralists into the market economy (Fratkin 1991). In the northern area of the African sub-Sahara, cattle herding and marketing has been encouraged at the expense of the more successful desert animal, the camel (Fratkin 1991). These often ill-informed attempts to transform the pastoral subsistence system into a capitalist production-oriented economy met with limited success, for administrators failed to look at how the pastoralists used the land, or needed to use the land (Fratkin 1991; Nathan *et al.* In Press).

Nature has also dealt a constraining hand in pastoral affairs. Over the past fifteen years, low rainfall, with resulting drought, has exacerbated the conditions precipitated by restricted access to grazing land and water. In northern Kenya, there was a loss of over 50% of pastoral livestock, which forced many pastoralists to seek refuge and settle

around permanently drilled water wells (Nathan *et al.* In press). These heavily concentrated areas quickly became overgrazed and pastoral dependence on famine relief programmes and mission-aid centers increased (Fratkin 1991). There is little doubt that religious organizations have reached out with valuable and much-needed assistance to many pastoral people, either in the form of food and medical supplies, or with restocking programs (Fratkin 1991). Yet traversing these generosities are the added expectations of pastoral indoctrination and religious adherence (Fratkin 1991).

Such events have had differential effects on each pastoralist society, and on individuals within a single group, thereby widening the already existent gap between the prosperous and the poor. The introduction of an economic approach to the raising of livestock, a dependency on local markets, and decreased mobility due to dwindling land access, have all contributed markedly to the increase in pastoral social differentiation with its inequalities in wealth (Galaty and Bonte 1991:269).

Diminishing pastoral autonomy has brought sedentarization, ensuing poverty and heavy reliance upon income *via* the informal economy and/or wage labour. In today's world, cash is needed to purchase the essential grains which are necessary for pastoral survival (Beaman 1981; Fratkin 1991; O'Leary 1990; Roth 1990). While pastoral sedentarization can be viewed as the cumulative manifestation of a complex process of change, some researchers claim it is not absolute, nor a one-way process, but rather one which has a reversible nature (Fratkin and Smith 1995:434; Salzman 1980). Yet given the current realities of the land and water constraints which pastoralists now face in the arid parts of Kenya, it seems highly improbable that there could be any imminent

reversion of the process, bringing pastoral return to fully mobile livestock economies.

Sedentism and participation in the cash economy have altered `traditional' circumstances and conditions for women's work, creating changes in gender relationships (Roth *et al.* 1994). In some cases, commercialization of livestock production has shifted the control of economic production exclusively into the hands of males, lessening any economic autonomy which females may have possessed (Talle 1988). In other instances, pastoral women are the active agents in economic organization, despite constraints in their sedentary and semi-nomadic production system (Dahl 1987). While sedentarization in and around towns has facilitated easier physical access to water, schools, medical facilities, and *dukas* (shops) for pastoral families (Fratkin 1991), this for most is part of development's 'veil of illusion.' In reality, education, better health care and commodities are available only for the few who can afford them. Although convenient access to nearby market centres enables pastoral women to participate in the informal economy, here again the lucrative possibilities or limits of women's economic strategies are defined by each woman's differential access to productive resources (Fratkin and Smith 1995).

In summary, the pastoralists of East Africa have often been stereotyped as homogeneous 'cattle keepers.' A more recent approach however, has been to move away from generalizing to present a more dynamic open systemic view of pastoralism, emphasizing heterogeneity both within and between pastoral societies. The available information about East African pastoralist societies of the past is generally perceived as being accurate to within a time depth of four centuries. From this it is apparent that environmental and ecological considerations have always strongly influenced pastoral

decisions regarding choice of herd species and in matters pertaining to mobility.

In present times, dwindling land access has constrained human and herd mobility, an essential ingredient for successful 'traditional' pastoral production. National governments have alternatively pressured pastoralists to commercialize and commoditize livestock production and products, while Western-sponsored development projects have similarly attempted to integrate pastoralists into the market economy. Misunderstandings on the part of development administrators as to how pastoralists use the land or need to use the land, along with lengthy sessions of drought, have had disastrous effects on many pastoral groups. More often than not, pastoral dependence on famine relief programs and mission-based aid has become a necessity for survival. Sedentism and participation in the cash economy have altered gender relationships as well, and have created changes in 'traditional' circumstances and conditions for women's work. While settled proximity to towns and market centres enables some pastoral women to participate in the informal economy, the possibilities for each pastoral woman's economic strategy is, in the end, constrained by her limited access to productive resources.

The remainder of the chapter is a survey of the general research trends in former and contemporary investigations of pastoralism. The next section outlines the theoretical approaches which ethnographers took in the past, and in noting the androcentric framework underlying many of their written accounts, it explores possible reasons for male bias. The overview subsequently turns to the recent feminization of pastoral research, which incorporates the vital role of the pastoral female into the investigative realm. As well, the section illustrates the difficulties for ethnographers when it comes to

amalgamating newly acquired female 'emic' and 'etic' perspectives into an outmoded, but still existent, androcentric analytical framework.

2.2 Ethnography and East African Pastoralism

2.2.1 Ethnographic Trends - Past and Present

As the current lifestyle of Western nations increasingly demands heightened productivity, commoditization and consumption of goods and services, on certain occasions many of us long for what we commonly refer to as 'a better way of life.' To this end, the romanticized image of the nomad, wandering free of material encumbrances, can captivate our thoughts, transport our minds, and release our spirits to roam. Even those who are all too familiar with pastoral complexities can, in fleeting moments, succumb to such wistful thinking.

Fanciful images of the East African pastoralist were not upheld by early 20th century colonial powers, however. Notions of 'free-spirited and unconstrained' pastoral people gave rise to the uncomfortable concept of 'uncontained' societies, a situation which British administrators disliked intensely and sought hard to eliminate through the creation of native reserves (Mkangi 1983). The production activities of pastoralists were also viewed unfavourably by early colonial administrators, who aspired to rechannel pastoral mobility and 'shiftless' labour into a more settled, efficient, agricultural way of life (Waller and Sobania 1994:47).

Some of the first ethnographic 'images' of East African pastoral societies were captured and recorded within the context of early colonial rule. Waller and Sobania

(1994:59) documented several of these earliest accounts as the following: J.R. Macdonald's (1899) *Notes on the Ethnology of the Tribes Met With During the Progress of the Juba Expedition of 1897-99*; M. Merker's (1904) *Die Masai*; A.C. Hollis's 1905 portrayal of *The Masai: Their Language and Folklore*, as well as his 1909 study entitled *The Nandi: Their Language and Folklore*; and lastly, K. R. Dundas's (1910) *Notes on the Tribes Inhabiting the Baringo District, East Africa Protectorate*. More often than not, the early 20th century ethnographic studies on pastoral societies had three foci: "social relations, the movement of property, and social structure" (Fratkin and Smith 1994:92). Remaining true to the tradition of British structural-functionalism, most cultural anthropologists approached each society as though it were a bounded, stable, 'traditional' system, a fixed culture-area, devoid of perturbations or influences from outside sources (Dyson-Hudson and Dyson-Hudson 1980).

Melville Herskovits (1926), who never personally set foot in Africa, wrote at great lengths about the East African "cattle complex" (McCabe 1994; Schneider 1979). Although the intent of his writing was to argue for the inclusion of pastoral values in the culture-area concept, he managed to portray East African pastoralists as having an "irrational" attachment to cattle (McCabe 1994:70). Like so many of the social/cultural anthropologists of his time, Herskovits gave little thought to economic interpretation or analysis, which as Schneider (1979:1) commented "is ironic considering that Herskovits is one of the foremost names in economic anthropology."

Evans-Pritchard, on the other hand, explored new areas in pastoralist studies with his classic anthropological publication, *The Nuer* (1940). In this analysis, he described a

'rational' group of people whose mobile herding practices were based upon seasonal variations in the environment (Mcabe 1994:71). Furthermore, Evans-Pritchard concluded that the Nuer's besiegement with cattle was heavily linked to economic considerations and the formation of valuable networks of social relationships (Fratkin and Smith 1994; McCabe 1994).

Thereafter, in the 1950s and 1960s, ethnographers described pastoral livestock production in terms of managerial adeptness. Theoretically, herd size and the household's need for subsistence, labor, and external social relations were thus proficiently managed so as to remain in a state of mutual equilibrium (Fratkin and Smith 1994). Discussions of systemic factors, such as mobility and/or the herding of specific species, frequently appeared within an environmental context, with reference to water sources and vegetation, and/or to seasonality and the variable rainfall pattern (Dyson-Hudson R. and N. 1980; McCabe 1994). According to the Dyson-Hudsons (1980), Fratkin and Smith (1994), McCabe (1994), and Schneider (1979), some of the structural-functionalist studies most associated with this particular era of African pastoral ethnography were carried out among the Fulani by Stenning (1957; 1959), the Turkana, the Jie, the Arush and the Masai by Gulliver (1951; 1955; 1963; 1969), the Karimojong by Dyson-Hudson (1966), the Samburu by Spencer (1965), the Somali by Lewis (1961), and the Boran by Baxter (1954).

It was also in the 1960s that one of the first publications about pastoral women appeared in *Women of Tropical Africa* (1963). This was Marguerite Dupire's article entitled "The Position of Women in a Pastoral Society," in which she insightfully

analyzes the dichotomous position of the Fulani WoDaaBe women of the Niger. In the everyday world of the WoDaaBe, by all outward appearances, a woman's position in the social structure is construed as complementary to that of a man. Yet Dupire notes that it is the core patrilineal structure of the society which incapacitates the WoDaaBe female by nullifying her rights to inheritance and by restricting her possession of property (Dupire 1963).

At the end of the 1960s and throughout the 1970s and 1980s, concomitant with the steady rise of the environmental and the feminist movements of the Western nations, anthropology followed suit with a flux of pastoral studies set upon an ecological framework (Dahl and Hjort 1976; Dyson-Hudson R. and N. 1969, 1972; McCabe 1983; O'Leary 1985; Spooner 1973). Likewise, research by women, and/or about women was sporadically introduced into the pastoralist realm (Beaman 1981; Dahl 1987; Grandin 1988; Llewellyn-Davies 1979; Michael 1987; Talle 1987, 1988; Spencer 1973; Waters-Bayer 1988).

While the previous adherence to the structural-functional approach to ethnographic analysis established a comprehensive understanding of lineage structure and segmentary descent organization, beginning in the 1970s there was a tendency among some of the anthropologists to replace the old structural-functionalist notion of cultural traits and behaviours of pastoralists, with the neofunctional paradigm of 'ecological adaptiveness' (Dyson-Hudson, R. and N. 1980; McCabe 1994; Schneider 1979). Cultural ecologists viewed the various spatial and socio-economic organizations of pastoral groups as adaptive responses to the biogeographic environment, assuming

their 'adaptiveness' merely because they occurred (Dyson-Hudson, R. and N. 1980; Nyerges 1982; Spooner 1973). This restricted emphasis on ecology as the primary determinant of pastoral practices, and on the adaptiveness of the latter, was increasingly debated (Dyson-Hudson, R. and N. 1980; Poulsen 1990). As horizons broadened with the introduction of a global systems perspective into scholarly circles, anthropological eyes decisively turned towards the wider state and global political economy for more encompassing answers (Dyson-Hudson, R. and N. 1980; Schneider 1979).

Ironically, while the context of pastoral research was expanded into the global arena and a more interdisciplinary approach was added, anthropologists began to reduce their generalizations about pastoral typologies. In consideration of the wide variation in pastoral organization and habitat, researchers narrowed their descriptions to typify the productive adaptations of a specific pastoral group. This descriptive 'splitting,' rather than 'lumping,' of pastoralist societies was done within the broad framework of a resource continuum, however, with solid recognition of the possible range of variation and overlapping repertoires (Dyson-Hudson, R. and N 1980; Fratkin *et al.* 1994).

In keeping with a global systems perspective, the 1980s and 1990s brought a surge of studies which examined the socio-economic and political problems of pastoralists within the context of drought, desertification, sedentarization and economic development (Fratkin 1991, 1992; Fratkin and Roth 1990; Gilles and Jamtgaard 1982; Hogg 1986; Horowitz and Little 1987; Legesse 1989; McCabe 1990; Nathan *et al.* In Press; O'Leary 1984, 1990; Rigby 1985; Salzman 1980; Galaty and Bonte 1991). While the literature in the early 1980s tended to dwell on the "destructive consequences of

common land tenure and individual ownership of livestock" (McCabe 1994:74), many of these later studies focused on economic solutions, or on the repercussions and costs which fell upon pastoralist societies as a result of development and famine relief programs. It was in this latter phase, with its focus on the sedentarization 'cause and effect' syndrome with regard to pastoral economies, that certain attention was given to the productive role of pastoral women (Dahl 1987; Ensminger 1987; Fratkin and Smith 1995; Grandin 1988; Little 1994; Michael 1987; Talle 1987, 1988; Waters-Bayer 1988).

2.2.2 Ethnography and Pastoral Women

Until the last two decades, ethnographers, for the most part, ignored or downplayed the productive role of the pastoral woman (Dyson-Hudson and Dyson-Hudson 1980; Joekes and Pointing 1991). With the exception of Dupire's study of the Fulani WoDaaBe (1963), and pastoralist studies by Stenning (1959) and Spencer (1965), academic research prior to the 1970s seldom referred to pastoralist females, particularly within the context of domestic and production activities. Furthermore, even when the role of females was noted, as Hafkin and Bay (1976) have commented, all too often many of these accounts were based on data obtained from male informants. While Dyson-Hudson and Dyson-Hudson (1980) proclaimed the increase of studies on pastoral women in the 1970s, a paucity of these actually focused on East African women's roles within such societies (Dahl 1979; Llewelyn-Davies 1979).

In the early 1980s, the publication of Claude Meillassoux's *Maidens, Meal and Money* (1981) and his paradigm of the "domestic mode of production" was considered to be somewhat feminist at the time for its attention to the position of women (Potash 1989).

He emphasized patriarchal control of women's reproductive powers and women's central role as maintainers of the household's labour power and as the biological reproducers of potential labour (Meillassoux 1981). With respect to lineage modes of production - which incorporates East African pastoralist societies - he argued that senior men controlled the labour and produce of both women and junior men due to the elders' control over marriage (Meillassoux 1981). Since the time of Meillassoux's exposition of the ideologies surrounding the position of women, there has been a marked increase in ethnographic studies which either include, or focus upon, the productive role of the pastoralist woman (Dahl 1987; Fratkin and Smith 1994; 1995; Holden and Coppock 1992; Little 1994; Michael 1987; Talle 1987, 1988, 1990; Waters-Bayer 1988). Yet this information is minimal when held against the background of available literature on pastoralism. Many ethnographers, rather than counteract the androcentric status quo, continue to project subordinate images of pastoral women, thus distorting their realities (Moore, 1988).

To exemplify this statement, one such ethnographic account, entitled *The Pastoral Son and the Spirit of Patriarchy*, was published as recently as 1989. In the analysis, anthropologist Michael Meeker attempts to identify the effects of stock-keeping on masculine identity. He refers to women in a brief passage on one page only, within the context of a discussion regarding the songs which women create to praise lovers and husbands. Meeker, in a concluding `politically correct' paragraph, covers this omission by stating,

> In passing so quickly over the question of women's personal identity, I do not mean to

> imply that it is not highly significant. Indeed, it may be a key to the deeper implications of the Dinka pattern of self-representation through cattle. This issue, however, would require a separate full-length study. (Meeker 1989:26)

Meeker is only one of many anthropologists who have placed women on the periphery of pastoral societies. To begin with, the analytical framework utilized in the study of pastoralists arose from a Western androcentric theoretical perspective (Talle 1988:17). In such a framework, where patrilineal clans and male age-set systems are considered as *a priori* organizing principles for the social relations of production and reproduction, it is little wonder that pastoral women have been relegated to the background, or characterized on the sidelines, singing songs of praise.

The neglect of women in the literature is a problem of representation, which can generally be identified as male bias, originating from one of three possible contexts. Initially there is the bias of the male anthropologist, which is carried into his field research. Even if the anthropologist is female, she carries, within herself, biases about gender relations (Moore 1988). A second bias can be transmitted from the society being studied. If women are perceived as subordinate by the informant, this will in turn be conveyed to the anthropologist (Moore 1988). In the past, the convention and preference for working with male informants in fieldwork has distorted many analyses (Moore 1988). Even if men were not the preferred choice as research informants, it is a rare male anthropologist who will admit in an ethnography that he was unable to speak with female informants because of their reluctance to converse with him. This does occur and, as Colin Turnbull succinctly wrote, "we delude ourselves if we think for a moment that we

can as fieldworkers, have equal access to all areas of the field" (Turnbull 1986:26).

A third bias, inherent in Western culture, has possibly contributed the most to the misrepresentation of pastoral women in research. In terms of gender relations, the members of a pastoral group may not perceive a male/female inequality, but rather asymmetry, and on a more encompassing level, may consider these asymmetrical relationships as complementary parts of the 'whole' society. Members of a Western society, on the other hand, would tend to equate asymmetrical male/female relationships with hierarchical relations, and ethnocentrically classify them as unequal. (Dupire 1963; Moore 1988). This Western bias most likely obliterates any consideration that pastoral gender relations may be founded on a contradiction between complementarity and hierarchy (Kratz 1990:449).

At any rate, in its present androcentric form, the analytical framework is problematic for 'gender conscious' ethnographers, as they attempt to juxtapose the information gathered on women's roles with the data pertaining to men. On the one hand, anthropologists will traditionally state that, upon marriage, a pastoral woman is allocated livestock to hold in trust for her son(s) - "usually, the allocation is permanent; the animals and their offspring form the core of the inheritance of her sons" (Grandin 1988:11). Then, somewhat contradictorily, ethnographers will contend, "women...are excluded from all important decisions relating to the welfare of the herds" (Rigby 1985:150). Irreconcilable with this statement are any previous claims or acknowledgements that women maintain certain livestock on behalf of their son(s) and decisively prevent their husbands from selling, or trading, these animals.

To cite a further example, in an article in *Ethos* (1987), ethnographer Aud Talle writes, in keeping with the status quo, "women's rights to livestock have to be mediated through men: fathers, husbands, sons" (Talle 1987:59). Yet in *Women at a Loss* (1988), where the focus is predominately on women's lives, Talle states, "the livestock inherited in the agnatic line...pass through the mothers, giving in-married women crucial roles as mediators and distributors in the system" (Talle 1988:84). Talle epitomizes the perception of the diminished importance of women in one account, yet realizes the predominance of their roles in another.

By introducing gender analyses into the research on pastoralist societies, ethnographers are faced with a serious problem. How can they possibly "realize" women's roles "using the terms of the dominant male model" (Moore 1988:3)? How can women's roles and activities be factually presented without destroying a time-honoured myth - a romantic myth - just as retold, one more time, in *The Pastoral Son and the Spirit of Patriarchy* (1989)?

Before the androcentric analytical framework can be modified, more quantitative and qualitative data are needed on the attitudes, beliefs and practices of pastoral women, and on the men's attitudes towards the women and their roles in the community. Researchers must continue to shift the focal point of their investigations from men's lives to those of women, until a more balanced view of the roles of both genders is obtained. There has been some quality work of late on the female pastoralist, much of which warrants reviewing (Dahl 1987; Fratkin and Smith 1994, 1995; Grandin 1988; Holden and Coppock 1992; Joekes and Pointing 1991; Little 1994; Michael 1987; Talle 1987,

1988, 1990; Waters-Bayer 1988). The following two chapters present a synopsis of this current literature. In Chapter 3, an outline is given of some of the contemporary research views of the pastoral woman and her participation in the relations of production and reproduction. Chapter 4 includes an review of academic work pertaining to pastoral women within the context of sedentarization, a discussion on the African perception of gender responsibilities with respect to the household economy, and, with the aid of case studies, an illustration of women's various economic strategies for survival.

CHAPTER 3

PASTORAL WOMEN & THE RELATIONS OF PRODUCTION AND REPRODUCTION: A REVIEW

3.1 Pastoral Women and Rights to Property

While they are neither homogeneous entities, nor self-sufficient closed systems, most East African pastoral groups are patrilineal, patrilocal clan-based societies organized into small, decentralized communities, composed of autonomous household units (Beaman 1983; Fratkin 1991; Fratkin *et al.* 1994; Michael 1987; Talle 1987, 1988; Wienpahl 1984). Cutting across the patrilineal clan and lineage descent group organization is a hierarchical male cohort age-set system, which solidifies the 'male supremacy' principle and places the means of production and reproduction (i.e. land, livestock, women and labour) into the control of married pastoral men. Females are thus restricted from ownership of, and/or full access to, any property (i.e. land and/or livestock) (Barfield 1993; Fratkin 1991; Michael 1987; Talle 1987, 1988:2; Wienpahl 1984).

As women officially remain outside the male age-set system, their activities and roles have largely gone unnoticed in the ethnographic record. Researchers have also failed to recognize the extent to which the status of a pastoral man is actually legitimized by his relations to women (Chieni and Spencer 1993; Talle 1987, 1988). It is ironic that epitomized in the patriarchal male is the old adage "the guard is a prisoner," and nowhere is this insight more clearly captured than in the recorded thoughts of Telelia Chieni, a 63-year-old Maasai woman (Chieni and Spencer 1993). In *Being Maasai* (1993), ethnographer Paul Spencer perceptively wrote,

> She [Telelia] lives in a society where men are in charge - her father when she was a child, her husband when she married, and her sons when she accompanies them to the *manyata*, and again her sons at some future point if her husband dies first. She does not pretend to understand the world of men, but she asserts the importance of the world she shares with other women. For Telelia it was not a matter of defending the equality of women in Maasai but of affirming their vital role in domestic affairs and in legitimizing the various roles adopted by men: a son only has a right to cattle allocated to his mother; a *murran* can only belong to the *manyata* where his mother is installed and she plays an essential part in his *murran*hood; the status of an elder ultimately hinges on the fertility of his wives which is central to the domain of women. It is not just women whose position is defined in relation to men, but also the reverse. The whole transition for a male from boyhood to elderhood hinges on the transformation of relations through women. (Chieni and Spencer 1993:160)

This paints a different picture than the one portrayed by Meeker in *The Pastoral Son and the Spirit of Patriarchy* (1989). *Women legitimize the various roles adopted by men*. And, the *murran* has a mother - a mother who, as ethnographer Peter Rigby points out, is entirely "responsible for the allocation of specific animals to [her sons] and... can decide to give nothing at all to a particular son" (Rigby 1985:150). Hence, it is important to stress at this point that, along with the factors of patrilineal descent organization and the male age-set system, matrifiliation is also a crucial organizing principle in the relations of pastoral production and reproduction (Rigby 1985:144).

The concept of matrifiliation pertains to the relationship connections between a mother and her children and plays a predominant role in what is referred to as the "house-property complex" (Barfield 1993; Talle 1987, 1988). The "house-property complex" involves a "system of property holding and inheritance" which customarily operates in

patrilineal, polygynous, pastoral groups (Obler 1996:258). In short,

> In this form of inheritance, each set of full-brothers, the sons of one mother, form a separate unit for property-holding purposes from their half-brothers who are sons of their father's other wives. Each wife in a polygynous marriage becomes the co-ancestor with her husband of a separate line or "house," whose descendants inherit its property. (Oboler 1996:258)

In effect, when a woman marries into the agnatic group, she becomes a mediator and transmitter of inheritance property (livestock) from one generation (the father) to another (the son(s)) (Barfield 1993; Rigby 1985; Saibull and Carr 1981; Talle 1987, 1988).

During the course of her life, a pastoral girl will occasionally be allotted livestock by her mother or father for her to milk. Yet with the advent of her marriage and departure to her husband's household, she will leave these animals behind, for it is understood that they belong to her father's herd. If she is given an animal to take with her, it is most often appropriated by her husband or his kin (Talle 1988; Wienpahl 1984). A woman's marriage is one of the most important times for the reallocation and transfer of livestock within and between families (Talle 1988; Wienpahl 1984). Bridewealth payments of livestock move from the groom's family into the " house" holdings of the bride's mother, where ideally, the animals are retained for bridewealth-use by the bride's full-brothers (Oboler 1996:259).

Upon her arrival in the agnatic group, a bride is allocated livestock by her husband and, in some instances, she may also receive livestock from her spouse's friends and/or kin (Talle 1988; Wienpahl 1984:196). While a man retains formal ownership of these animals, he does not have "exclusive, individual control of the means of production,

nor over the product" (Rigby 1985:145). The allocations of livestock which a man makes to his wife give her usufruct rights to the animals and their products, allowing her to re-allocate them to members of the agnatic family should she choose, and/or to redistribute the livestock amongst her sons (Rigby 1985; Talle 1987, 1988). As Wienpahl (1984) points out however, "in principle a woman has no authority in, or control over, decisions to slaughter, sell, or give away the animals allocated to her, or their offspring" (Wienpahl 1984:197). Ideally, in concert these animals will provide subsistence for a woman and her family, as well as form the core inheritance stock for her son(s) (Talle 1987).

Since a man's major property rights are acquired through inheritance from his mother's "house," in the "house-property" complex "descent from the same mother is of more immediate importance than descent from the same father" (Barfield 1993:30; Oboler 1996:258). Hence it follows that according to the literature, the strongest obligation and most important emotional attachment of a pastoral man is to his mother. She mediates his rights to livestock and he embodies her prospects for care in her final years (Potash 1989; Rigby 1985; Talle 1988).

3.2 Pastoral Women and the Gender Division of Labour

In the article *Women in Pastoral Production* (1987), Gudrun Dahl writes that in order to analyze how pastoral work is organized and evaluated, the practical and ideological relations that men and women have with the processes of production and reproduction must constantly be kept in mind. She argues that in pastoralist societies there is a dual nature of productivity, which involves subsistence and utility products on

the one hand, and herd regeneration on the other, and that the constant intertwining and blurring in boundaries of male/female labour input leaves room for underestimation and devaluation of women's contribution to both (Dahl 1987:246). This statement, I believe, can be maintained for any pastoral society. Joekes and Pointing (1991) compared women's roles in pastoral societies in East and West Africa and concluded that there were stronger similarities than differences in the gender division of labour (1991:2-3). For this reason, and due to the fact that there is a dearth of detailed information about pastoral women, I have included Waters-Bayer's (1988) research on the women of the settled Fulani agro-pastoralists in Central Nigeria, West Africa, into the remainder of the literature review.

For most pastoral women, the house is the basis of female autonomy and generally married women own, and are in charge of, their own homes (Beaman 1983; Dahl 1987; Fratkin 1991; Michael 1987; Talle 1988; Waters-Bayer 1988). To build, repair and keep a house is a woman's responsibility (Beaman 1983; Talle 1988:190). This is particularly time-consuming and, in the case of nomadic women such as those of the Hawazma (Baggara) of Sudan, it involves dismantling, transporting and reassembling the house at each encampment (Joekes and Pointing 1991:6; Michael 1987). In most cases, pastoral women are also responsible for all domestic chores which include: seeing to child-rearing and care, cleaning of household equipment and milk vessels, construction of many household items (i.e. milk containers and mats), washing of clothes, milking of livestock, shopping for food, cooking and serving of meals, collection of water, gathering firewood or dried dung for fuel, attending the fire, and processing grain.

Frequently, women will also gather edible plants and berries, when available (Beaman 1983; Dahl 1987; Fratkin 1989, 1991; Joekes and Pointing 1991; Michael 1987; Talle 1988). In addition, Waters-Bayer (1988) writes that in the agro-pastoral Fulani, women not only maintained their own small garden plots near the household, they also contributed considerable labour to the care and harvesting of their husbands' grain fields (1988:87-88).

Given the above, it is not surprising then that Fratkin and Smith's (1995) time allocation survey, conducted among 39 Ariaal Rendille pastoralists in October and December of 1985, revealed that married Ariaal women spent 36.7 percent of their daily activities engaged in household tasks, whereas married males spent only 7.2 percent of their day in similar activities. Women also spent 14 percent of their day manufacturing household goods, while similar tasks took up 2.3 percent of men's time. Likewise, the study suggested that Ariaal males passed 52.4 percent of their daytime in rest or leisure pursuits, whereas for pastoral women this time allocation was shown to be less, involving only 35 percent of their day (Fratkin and Smith 1995:443). Interestingly, a time study performed in May 1992 in the settled Ariaal Rendille community of Ngurunit town showed similar categorical results, with the exception that male rest/leisure time rose to include 72.9 percent of a day (Fratkin and Smith 1995:440-441). These studies illustrate that women work extremely hard, whether in nomadic or sedentary conditions.

A common stereotype, as Dahl (1987:250) states, is that pastoral males - boys, warriors and married elders - attend to all facets of animal husbandry. This may be partially true, in so far as men and boys spend considerable time with the herds away

from the homesite (Dahl 1987; Joekes and Pointing 1991). Although herding is generally defined as a male activity, pastoral women and girls also spend a considerable amount of hours tending and/or grazing the animals (Beaman 1983; Michael 1987; Talle 1988; Wienpahl 1984). This is an example of the 'invisible labour' force of females - and it is also a demonstration of the 'gap' between what women actually do and what their society (or previous ethnography) credits them as doing (Dahl 1987:7). What is often underestimated in a pastoral society is that "women frequently spend more time than their husbands in animal care" and play a major contributory role in the raising of livestock (Joekes and Pointing 1991:7).

In certain societies and in situations where there is an insufficient male labour force, pastoral practicalities demand that women and/or young girls undertake the duties of herding. In the case of the Turkana of Kenya, "girls rather than herdowners seem to be the first recourse" for herding when there is a shortage of males for work (Wienpahl 1984:205). This may involve herding either smallstock, or large stock located in dry season grazing camps, or it can include herding of all animals (Beaman 1983; Wienpahl 1984). Regular female herding of smallstock may also be the norm, as in the case of the Rendille of northern Kenya (Beaman 1983). Furthermore, livestock watering, feeding and care of smallstock, pregnant cows and young and sick animals - animals which are maintained near the residential camp - are tasks which are regularly performed by pastoral women and girls (Fratkin 1989; Joekes and Pointing 1991; Talle 1987; Wienpahl 1984). Dahl (1987) suggests that one of the most labour-intensive parts of livestock production is to be found in the caring of pregnant cows and newborn calves. Wienpahl

(1984) observed that Turkana women knew more about the genealogy of their livestock than the 'managing' herdowners did themselves and she credits this to the women's close associations with the animals (1984:209).

Normally, pastoral women are prohibited from slaughtering livestock and do so only under the authorization of a male family member. Yet they frequently butcher the animals and control and distribute the livestock products (i.e. milk, meat and blood). There are often customary assignments of certain animal parts to particular individuals, in which case, women's meat distributory powers are reduced to a mere formality. Women will also dry, smoke and store the meat, as well as process the hides and skins (Beaman 1983; Dahl 1987; Fratkin 1989, 1991; Joekes and Pointing 1991; Talle 1988; Wienpahl 1984).

To cite further literary evidence for women's strong participation in the raising of livestock, Fratkin and Smith's (1995) time allocation study of the Ariaal pastoralists revealed that while adult men spent 33 percent of their time in tasks associated with livestock, 14 percent of adult women's time was occupied in a similar manner. Although the researchers state that males from the warrior age-set spent 71 percent of their day engaged in livestock activities and adolescent boys spent 83 percent, they note that adolescent girls were engaged in livestock-related tasks for 44 percent of their day (Fratkin and Smith 1995:443).

Milking takes up considerable time in a pastoral woman's day and includes an element of strong personal involvement with livestock - particularly with cattle - as they require familiarity with their milkers in order to yield maximum output (Dahl 1987).

Within the context of the "house-property" complex, as mentioned previously, most pastoral women have exclusive usufruct rights to milk animals allotted to them upon marriage, and to manage the daily use of fresh milk and dairy products (Dahl 1987; Fratkin 1991; Joekes and Pointing 1991; Michael 1987; Talle 1987:70, 1988; Wienpahl 1984). There are always exceptions to 'the rule,' however, and in the Rendille pastoralists of northern Kenya, while it is the women who milk smallstock, milking of camels is done only by Rendille men (Beaman 1983). Similarly, in the agro-pastoral Fulani of Nigeria, cattle are milked by men as well (Waters-Bayer 1988). In all cases, milk offtake must be managed so that those who 'milk' leave enough nourishment for the calves (Talle 1987; 1988).

Regardless of which sex performs the milking, in almost all pastoral societies it is the woman who has access to the milk and the right to distribute it. She decides how much milk to keep for household subsistence and for the production of dairy products (i.e. butter, buttermilk and *ghee)*, how much to donate to close kin and friends, and how much, if any, to sell. Furthermore, in those societies where milk is marketed, proceeds from these sales traditionally remain in the hands of the women (Fratkin and Smith 1995; Little 1994; Michael 1987; Talle 1987; 1988). While the economic activity of milk marketing is discussed in detail in the concluding section of the next chapter, and in the remainder of the thesis, an examination of the ideologies and practices surrounding the use of milk is warranted at this point, due to the important position which it holds in the lives of pastoral people and in the formation of the personal identities of women.

3.3 Pastoral Women and Milk Management

In a 'traditional' sense, the most important dietary staples in a pastoral community are milk and milk products. In East Africa, the available milk supply for pastoralists varies seasonally, according to conditions of wetness or aridity. It also varies yearly, as yields from lactating female animals fluctuate due to their ages, the quality of available rangeland and the number of animals which a household has at any given time (Michael 1987; Talle 1988). During seasonal dry spells, the production of milk declines drastically for several reasons. Herds are generally taken away from the homesite to dry season grazing areas for long periods of time, leaving only a few lactating animals to meet the milk demands of the household. At the same time, there is scarcity of vegetation and water for livestock in all grazing areas, both in and around the homesite and stock camps. Consequently, by the end of the dry season, the animals are thin and little milk is produced by the lactating females until the next wet season rains are well underway (Michael 1987; Talle 1988).

As mentioned previously, even though pastoral men are considered the owners of the herds, in most societies, women do the milking, have access to milk and have the right to distribute milk, giving pastoral women an important role in the economy of the household. A man is expected to allocate sufficient lactating animals to his wife to meet the household's subsistence demand, and ideally, to provide a surplus of milk as well (Michael 1987:120; Talle 1988:205). Milk is also the nutritional basis for herd reproduction and even though milking tasks are generally considered to be part of the women's domain, pastoral men often come into conflict with their wives over the amount

of milk which they take for human consumption *versus* what they leave for the calves (Talle 1988; Wienpahl 1984). It is in this capacity that a pastoral woman "controls the distribution of milk between humans and animals which is the crux of a successful pastoral enterprise" (Talle 1988:205). Thus, as 'milk manager,' a pastoral woman truly mediates between the forces of pastoral livestock production and human and animal reproduction. Grandin (1988) comments that the "Maasai do not speak of milking cows; they speak of "milking calves" which in essence indicates that milk given to a Maasai child is taken from a nursing calf (Grandin 1988:12). For this reason, Talle (1988) contends that Maasai men cautiously monitor the amount of offtake which women milk from their cows, as they are well aware that ultimately "Maasai women are considered to favour their children over calves" (Talle 1988:209).

In African pastoral societies, a married woman's status rests heavily upon her role as a mother, or as the "producer of producers" (Dahl 1987:256). Joekes and Pointing (1991) state that in effect, her rights and access to milk depend upon her reproductive role, as "child-bearing establishes a woman's claim to milk" (1991:10). Consequently, post-menopausal women, or those women without livestock, will often foster or adopt a child to gain access to a continued supply of milk (Joekes and Pointing 1991:10). How well a pastoral woman manages her milk supply reflects her capabilities as a wife and mother, both in the eyes of her husband and the pastoral group (Talle 1988:210; Waters-Bayer 1988). Except for times of severe milk shortage, she is expected to ensure that there is enough milk for her children, plenty for her husband's personal consumption and a sufficient supply for any guests who might happen to visit or stay in the home (Talle

1988:210; Wienpahl 1984:200-201). Differentiation in pastoral household wealth gives those wealthier women with a surplus of milk a valuable asset when it comes to meeting wider social needs. The ability to donate milk to poorer relatives, friends and neighbours, or assist any hungry, food-searching *moran*, goes a long way towards establishing goodwill in the pastoral community (Grandin 1988; Talle 1990).

Milk containers (i.e. calabashes and kubuyus) are a great source of pride to pastoral women and these are manufactured and decorated carefully. Talle (1988) comments that with the Maasai, each day the calabashes are cleansed thoroughly and then smoked, by adding bits of hot ember to the container. The calabash is then covered and shaken for several seconds. Following this procedure, the inside of the calabash is scrubbed with a stick from a favourite tree which flavours the container. This will subsequently flavour the milk when it is added at milking time (Talle 1988:210-211). The milk container is so much a part of a woman's identity that Talle writes, "symbolically, women embody milk, not only in their breasts, but also in their milk containers" (Talle 1990:83).

Although it is primarily a foodstuff, milk also has a wide range of symbolic meanings for East African pastoral groups. As the basis of nutrition for calves and humans, milk is considered to be a powerful symbol of procreation and thus is frequently used by the elders of a society in human/animal fertility and growth rituals (Saibull and Carr 1981:86; Talle 1990:81). Other ceremonial blessings can also involve the sprinkling or the drinking of milk, such as in the ritual which marks the end of *moran*hood for males (Talle 1990:81-82). Butter and *ghee* are also valued as nutritional products as well as

milk, and are frequently applied as purifying body ointments by pastoral women in ceremonial rituals for newborns, for newly wedded couples, or for female initiates during circumcision (Talle 1990: 80-82). While each pastoral group has its own symbolic repertoires covering the use of milk and dairy products in ceremonial rituals, the essence of its sacredness lies in the nutritional and life-sustaining powers which it gives to humans and animals alike. Thus, women, as 'milk managers,' are in a pivotal position in a pastoral society, as they are the transmitters - the mediators - of milk, in the human/ animal regeneration complex.

So far, this review of the literature has examined women's participation in the daily activities of East African pastoral life and notes that, despite the patrilineal paradigm which is pervasive at the community level, pastoral women hold discrete units of decision-making power at the household level. These fall into three principle realms - matrifiliation, a woman's home, and her position as 'milk manager.' According to the literature, there is one other area where a woman can have substantial influence, draw powerful support, or run into bitter conflict, and that is in her social relationships (Dahl 1987; Joekes and Pointing 1991; Talle 1990; Vock 1988; Wienpahl 1984). While this topic is huge, there is very little in the literature describing the relations between pastoral females, and what information there is on women's relationships remains more or less focused upon their links with males. Nonetheless, the following subsection briefly illustrates and summarizes some main points with respect to the influential powers of pastoral females.

3.4 Pastoral Women and Social Relationships

At the community level, relations between men and women are formalized by the male age-set organization which "prescribes appropriate sexual and marriage interactional categories, not only whom a person may marry, but also at what age men and women may engage in sexual acts or contract marriages" (Talle 1990:76). At the household level, however, relationships between sexes take on an added dimension, a dimension which can perhaps best be conveyed, with added tongue in cheek, by the phrase, "never underestimate the powers of a woman."

While a woman's informal influence can be particularly strong in a pastoral society because of the matrifiliation principle and her control over certain assets (i.e. the house, domestic equipment and milk), Dahl (1987) also maintains that a woman has a substantial amount of bargaining power with her husband because of her close connections with the male members of her natal family (in East Africa, a woman generally maintains contact with her agnatic group of origin). Her husband's access to gifts of livestock, use of water resources and/or pasture, or his assurance of a binding political alliance with his wife's kin could easily be jeopardized if amicable husband/wife relations are not maintained (Dahl 1987:265). Similarly, a woman's relationship with her adult son(s) may give her some leverage to pry away at her spouse's authority, for ultimately she can threaten to leave and seek refuge in a son's home. Wienpahl (1984) notes that the age and personality of the husband and his wife/wives contribute heavily to the dynamics of power in the household. If co-wives for instance, join in solidarity, a husband's authority could be severely shaken (1984:197).

Dahl (1987) further writes, "the 'networking' of women acting in patterns of daily cooperation with other women, is as important to social cohesion ... as the male-dominated, politico-jural sphere" (1987:267). While these female relationships are frequently less formalized than those which exist between pastoral males, they are essential to the viability of each pastoral community (Dahl 1987). Expanding upon this, Beaman (1983) notes that in giving gifts or services to other females, a woman establishes a network of women from whom she can make demands during times of hardship. "The broader her network, the greater her chances of maintaining a constant flow of food into her household" (Beaman 1983:24). In a similar vein, Joekes and Pointing (1991) comment that pastoral women use their dairy management roles and products to establish solid social relations. They write,

> Women also utilise their dairy management roles to build up their own social networks, either by giving dairy products to other women, or by allowing other women the use of one of their own milking animals. In this way, women too build up reciprocal exchange networks, and ensure the flow of food into the household during periods of stress. (1991:10)

Yet, as 'tight' as these social networks may have been in the past, sedentism and participation in the cash economy have exacerbated wealth differences between pastoral households, reducing solidarity among pastoral females. As Talle (1990) notes, Maasai women, who have large quantities of surplus milk, can easily convert it into cash, or trade it for the labour of other women. Hence, she states that milk is no longer distributed freely as it once was and adds that "it now tends to become a source of conflict and competition, giving rise to asymmetrical relationships among women of the family and

homestead" (Talle 1990:85).

To raise a final point on the subject of women's relationships, just as it is a main priority for every pastoral household to harbour male offspring, daughters are also a significant resource for pastoral women's daily management of chores. Therefore, it could well be that women would rather have more female children than male offspring to assist with the labour-intensive production activities (Dahl 1987; Vock 1988:88). While the literature does not discuss pastoral mother/daughter dyads other than what has been mentioned above, one might safely surmise that to a large degree these relationships are extremely influential as to how well a woman can autonomously maintain her household.

In summary then, the current literature reveals that women play a prominent role in pastoral relations of production and reproduction. A woman's house is the basis of her autonomy and if she is married, she generally owns, and is in charge of, her own home. Although the patrilineal principle excludes her from ownership of livestock, the "house-property complex" ensures a woman valuable usufruct privileges, allowing her access to certain animals and control over fresh milk and dairy products. In her capacity as milk manager, a woman holds considerable decision-making power regarding the economics and well-being of the household. Ultimately, it is she who balances the milk supply between family members and calves, and in this way mediates between the forces of livestock production and human and animal reproduction.

The matrifiliation principle places a pastoral woman in a mediating position as well, and establishes her as transmitter of livestock inheritance rights from one generation to the next. The literature demonstrates that a pastoral woman's domestic

responsibilities encompass a wide range of duties, from child care to the milking of livestock, and in some cases, the tending of household gardens. While researchers have formerly defined herding as a male activity, recent investigations reveal that pastoral females are heavily involved in herding and raising of animals. With time at a premium, and with children to feed and clothe, pastoral women by necessity, establish strong social ties with other females. These networks provide relationships of cooperation and aid for domestic chores and are the basis of reciprocal food exchanges in times of hardship.

Long established patterns of relationships and gender roles are changing rapidly, however, as household economies and whole communities become more fully integrated into the wider state and global political economies. The concomitant factors of drought and desertification, reduced availability of land, increased sedentism and growing participation in the cash economy have all contributed to the alteration of circumstances and conditions for women's work. In the following chapter, pastoral women are viewed in light of these complex changes.

CHAPTER 4

PASTORAL SEDENTISM, HOUSEHOLD ECONOMIES AND WOMEN'S SURVIVAL STRATEGIES: A REVIEW WITH CASE STUDIES

4.1 Introduction

As pointed out in Chapter 2, several interrelated factors contribute to the sedentary conditions which many East African pastoralists find themselves in today. Over the years, colonial, post-colonial and independent state governments consecutively established international and district boundaries, livestock quarantine barriers, land privatization schemes, and state-controlled national parks and game reserves. Each of these political moves further alienated pastoral societies from their communally-held pastures and water resources. Consequently, intertribal conflict escalated as each group competed for the shrinking land base so vital to their mode of existence. Added to these conditions were lengthy sessions of drought, which, when combined with episodes of disease, resulted in severe loss of livestock, massive pastoralist starvation and death, as well as desertification of the land. To compound matters, governments continually pressured pastoralists to settle and, with the help of internationally-sponsored development programs, encouraged groups to become more fully incorporated into the market economy. Famine relief programs and mission-aid centres, while offering access to drilled water wells and to much needed food and medical assistance, also contributed to the sedentarization process, as well as to pastoral dependency.

Over the years, poverty has steadily increased among pastoralists and wealth differentials between households have been exacerbated (Fratkin and Roth 1990; Galaty and Bonte 1991). While there is little doubt that women's lives have been affected, actual

research into the effects of sedentism and the changing economy upon pastoral women has really just begun. As the data accumulate, however, evidence indicates that "sedentarization has far reaching, although sometimes contradictory, social and economic consequences for women" (Joekes and Pointing 1991:14). It is to these consequences that the review in this chapter now turns.

4.2 Pastoral Women, Sedentarization and Changing Economies

A concise overview of the effects produced by sedentarization and livestock commoditization in the lives of pastoral women is contained in the work of Joekes and Pointing (1991). A major consequence for all pastoralist groups, the researchers claim, is the breakdown of traditional rights and obligations within the societies, resulting in changed gender relationships and relations between women (1991:21). They write, "as social relations are restructured, women's entitlements are diminished and changes in the sexual division of labour are resulting in increases in women's workload" (1991:21).

Joekes and Pointing (1991:15) comment that sedentarization frequently brings about desertification due to overgrazing in the area, resulting in livestock deterioration and reduced productivity of milk. Added to this is the factor of increased livestock market sales by pastoral men. Consequently, while many women still hold usufruct rights to livestock for milk, and are managers of milk, more often than not milk as a product is currently in very short supply (1991:15). The authors contend that a reduction in milk supply results in increased consumption of grain by pastoral people, which in turn, has harmful nutritional effects upon the children (1991:15). Secondly, they point

out that a reduced milk supply has an effect on women's dairy sales. Women can either sell and earn less, or they can reduce the household's supply of milk in order to maintain their income from marketing activities. Either way, the welfare of the family suffers, as the money earned from milk marketing is generally spent on household needs (1991:16).

Joekes and Pointing (1991) also discuss household food provisioning responsibilities, which are usually those of the women, and they question the degree to which men participate in provisioning should cash expenditures be involved (i.e. the purchase of grains). If men do take responsibility, they ask, do they provide cash to the women, or do they provide the food for the household themselves? In noting that some Maasai women had difficulty in obtaining financial assistance from men for household needs, they also queried whether men's perceptions might be different than women's with regard to spending priorities and household requirements (1991:16).

In addition, Joekes and Pointing (1991) elaborate upon the consequences of environmental degradation on women's activities. They report that the diminishing availability of wood has added considerable time and energy to women's firewood collection duties, as well as to their search for wood for house-building and repairs. Furthermore, they state that the increased consumption of maize by pastoralists has not only increased a woman's time spent in food preparation, but it has augmented the need for cooking fuel, and added yet more time to the firewood collection process. They also point out that impoverished women, who rely heavily on the sale of firewood for income, simultaneously effect the conditions of wood shortage while being affected by it (1991:18). They note as well that rangeland deterioration makes it extremely time-

consuming and difficult for women to collect fodder for livestock which are kept near the household. Water collection, on the other hand, they report, is often made easier for women, as settlements frequently arise near permanently drilled water wells. Yet Joekes and Pointing also contend that in some areas, where there are communal water sources, it is not unusual to find that restrictions have been applied to water access, requiring women to pay cash for their supply (1991:19). Another consequence of land degradation which the authors note, is the decline in the growth of wild foods, such as plants, roots, fruit and berries. These were previously a valuable source of nutrition for the gatherers (i.e. women and children), as well as a being essential ingredients for the preparation of local medicines (1991:20).

Poulsen (1990) writes that amongst Somali pastoral societies, the economic importance of milk has declined in favour of marketed meat sales, resulting in the exclusion of women from active production, leaving them more dependent upon male family members (1990:148). Talle (1987) similarly notes that while conversion of livestock into cash is often justified by pastoral men on the basis of household needs, at the same time the 'traditional' rights of livestock allotment to children and wives are disregarded in the process. Pastoral women are either left without access to livestock for milk subsistence or sales, or alternatively, in some groups, once milk sales become lucrative, women are alienated from the earnings as these are co-opted by the men (1987:77-78).

Other researchers, such as Fratkin and Smith (1995), note that pastoral sedentarization in, or around, towns can bring positive benefits to some pastoral women,

allowing them to increase their economic opportunities through the sale of fresh dairy products, garden produce, and petty commodities, or as wage labourers (1995:433-434). They contend that since pastoral women are 'traditionally' responsible for provisioning their families with food, either through their own subsistence efforts or by generating an income to purchase foodstuffs, the increased opportunity for cash sales may have a beneficial effect on the nutrition of children (1995:435). Although they realize that differential household wealth sets the limits as to what income generating activities, if any, a woman can pursue, they suggest that proximity to town markets allows some women to increase their milk sales, which in turn facilitates the regular purchase of maize meal (1995:450). While acknowledging the high protein and vitamin content in milk, Fratkin and Smith (1995) point out, as did Grandin (1988:8), that "maize yields five times the caloric value of milk, and is a necessary staple during long dry periods" (1995:450). In addition, these researchers claim that sedentary town life offers pastoral families better health care and greater access to educational facilities (1995:450).

What is uniquely different about Fratkin's and Smith's (1995) study on sedentarization and women's changing economic roles in Rendille pastoralism, is their method of investigating women's marketing budgets and household economic surveys (1995:440-449). Their findings will be reviewed in more detail in the succeeding chapter, but two points should be referenced here. First, Fratkin and Smith (1995) add valuable information to a meagre data base of knowledge on pastoral household budgets. Secondly, their economic surveys rely heavily upon personal interviews with pastoral women (1995:440). The latter is important, because often economic census surveys

conducted in societies of Third World nations were addressed individually to the male head of the household. This has obfuscated women's contributions in terms of both paid and unpaid labour and has given an unilateral male-biased view of the conditions and needs of a society (Rathgeber 1989:26-27).

The unpaid labour contributed by women to the pastoral household and community has already been reviewed in the preceding chapter, however their income-generating activities still remain to be described. Before these are outlined, the Western concept of 'household economics' and the African perception of gender responsibilities *vis-a-vis* the household economy should be reviewed. For only when pastoral women's income-generating activities are viewed within the context of the African 'emic' notions of household economic responsibilities can a full picture of their economic roles be ascertained.

4.3 Gender Roles and the Economies of African Households

In *The Household Economy* (1989), Wilk contends that consumer researchers and some anthropologists base their general analyses of household economies on the Normative Model, which depicts the flow of resources and decision-making as *per* Anglo-American single-account households (1989:32, 38). He states that "many problems stem from using it as a model for all households" (1989:32) and adds that "anthropologists and economists have often assumed that household budgets also take the form of a general fund or pool" (1989:32). Wilk (1989) writes, however, that anthropologists who actually work with African societies find the notions of pooled

income and a single nexus of decision-making to be largely inaccurate (1989:33).

Wilk's (1989) article is but one in the ever increasing body of contemporary literature which discusses in theoretical terms the practice of nonpooling of income in African households. Potash (1989) writes that, in contrast to the practice of pooled incomes of Western households which cover an extent of household expenditures, "husbands and wives in Africa generally have separate incomes which they do not pool, and they individually underwrite different household activities, with women generally responsible for feeding and clothing their own children" (1989:192). Shipton (1989) attests,

> Economic anthropologists are now looking right into African families to watch market and nonmarket behavior interact. As political economists scrutinize the state, so anthropologists are scrutinizing the household. They are finding fuzzy boundaries around the group, and competing interests, between genders and between generations, that prevent free and equal sharing of resources, or of power, within the group. No longer is 'the household head' considered *the* decision-maker in the family. 'Income' is being reconceived as 'income streams.' Different kinds of wealth are seen to be controlled by different members of the household, negotiated over, and used for competing purposes. (1989:8)

Data which relate to the nonpooling of household income in specific societies are also accumulating, particularly in connection with groups associated with agriculture in West Africa. Guyer's (1980, 1988) ethnographic studies of the economies of Beti families in Southern Cameroon extensively document the separateness of women's incomes and patterns of spending among Beti farming households. She emphasizes important distinctions in the seasonality of women's marketing and income and notes

differences in incomes and expenditures between married, single and widowed or divorced females. Guyer (1988) writes that Beti women contribute approximately two-thirds of the cash needed for food and household supplies, while men contribute one-third. "This leaves women with one-quarter of their personal incomes for other purposes, while men are left with about three-quarters" (Guyer 1988:165). She adds, however, that evidence suggests that the new exigencies of school fees for Beti children may require "a new process of interdependent budgeting between husband and wife" (Guyer 1988:169).

Clark (1986, 1989, 1994) describes the household and economic arrangements pursued by Asante market women of Kumasi, Ghana. She states that amidst the practices of both joint and duolocal residences and loyalty to matrilineal kin, there are expectations of separate personal budgets for spouses. "Resources are not pooled, but exchanged by request, or mutual agreement" (Clark 1994:93). An Asante woman's personal dignity rests upon her economic independence and upon her ability to dispose of her own income as she sees fit. Husbands expect this practice and are not willing to be the sole supporters of their families (Clark 1994:96). Food money is the only money which an Asante wife typically receives from her husband directly. A man will pay for rent, furniture and medical expenses and will often give money directly to his children to cover educational costs (Clark 1986:243).

Clark (1994) further writes that Asantes do not have *households* in the Western sense of the term. Couples are figuratively nestled within a matrilineal residential and property group and unlike the tenuous financial conditions which women often endure under a patrilineal/patrilocal regime, a woman's matrilineage provides security, often

with access to loans or capital to begin a business, or with financial help in the event of illness, divorce or micro-enterprise bankruptcy (Clark 1994).

Waters-Bayer (1988) relates, in detail, the household economic practices of settled patrilineal Fulani agro-pastoralists of Abet, Central Nigeria. At present, both Fulani women and men are entitled to own livestock and, although women have little to do with actual herd management, women are free to dispose of their livestock as they choose. Any revenue from the sale of cattle or smallstock owned by a woman rightfully belongs to her. It is important to note here that Waters-Bayer (1988:22) implies that women's rights to ownership of economic resources have been concomitantly and favourably influenced by the incorporation of Muslim inheritance law (giving daughters an inheritance of half that of sons), and their present sedentary, hence 'law-abiding,' conditions. While men are required to sell their own livestock to provide their wives and children with staple foods, housing and clothing, women are not required to sell their animals for any such purposes, which, as Waters-Bayer (1988:164) comments, "has important implications for the accumulation of stock" for each spouse. Household economic responsibilities of husbands also include the payment of educational and health care costs (Waters-Bayer 1988). Control over the earnings from the sale of dairy products remains in hands of the married Fulani women. Women are not required to disclose their incomes or expenditures to their husbands and many men are uninformed as to the amount their wives earn. Women are expected, however, to use part of their dairy income to purchase some of the household food (Waters-Bayer 1988:157).

In contrast to West Africa, in East African households, where there is a greater

emphasis on patrilineal-based property groups and patrilocal residence, circumstances or factors which determine the "separateness" of women's incomes and expenditures may be somewhat different. The literature suggests that the move towards a greater degree of economic "separateness" on the part of some East African women is both a recent and necessary response to changing contemporary socio-economic conditions. For example, Nancy Horn's (1994) discussion of household budgets of female produce vendors in Harare, Zimbabwe, describes the 'informal' marketing activities of women as the economic mainstay of household provisioning. In this particular patrilineal cultural environment, spouses' incomes are normally not pooled, but with the current high male unemployment, which brings an inconsistency of male monetary contributions to family support, the financial circumstances of the women have established the 'separate purse' phenomena (Horn 1994:141).

Meeker and Meekers (1995) throw a somewhat different light on spouses' economic "separateness" in East Africa. They write that, although the Kaguru women of rural Tanzania operate in matrilineal agricultural households, where 'tradition' dictates the nonpooling of incomes, often these women end up with full financial responsibility for the family. Wives commonly complain "that men often would rather spend their money on beer, other women, or goods for themselves rather than for the household" and they further admitted that their own earnings are frequently confiscated by their husbands (Meeker and Meekers 1995:19).

In East African countries, the increase in the household provisioning pressures which have been placed upon women is a reflection of the greater state and global

economic issues at large. Since the 1960s, combined internal and external factors have resulted in the doubling of Africa's foreign debt. In an attempt to revitalize the industrial and agricultural sectors, the International Monetary Fund (IMF) and the World Bank instituted structural adjustment programs and policies (SAPs), which have been adopted by over 30 African countries since 1982 (Gladwin 1991:2-3). Many of the SAPs consisted of currency devaluation, closer alignment of domestic prices with world market prices, an emphasis on exports, trade liberalization, privatization policies, a mandate for balanced budgets, reductions in government spending, removal of food subsidies and wage and hiring freezes (Ensminger 1992:101; Gladwin 1991:3-4). Ensminger (1992:102) writes that while part of the purpose of SAPs in Africa was to provide incentives to agricultural producers, the immediate increase in food prices to consumers without a corresponding rise in income has been disastrous.

The monetization of African economies has resulted in increased male unemployment and/or employment/education quests by rural males in urban areas, leaving many rural African families abandoned in abject poverty. Although many women have migrated to cities themselves, most women in Africa still reside in rural areas, often remaining as the sole provisioners for their households (Due 1991:104; Potash 1989:198). To this end, the informal economic sector offers impoverished rural women the ways and means for their families' survival. Yet, because informal sector employment is a "very fluid, dispersed sector of the economy," it often goes undetected by formal census takers, or alternatively presents them with too many difficulties for accurate government recording (Bossen 1989:340). Consequently, the economic

repercussions and increased workloads which women inherit from macro-economic change, is information which frequently remains uncovered (Bossen 1989:340). Bossen (1989:340) succinctly summarizes informal sector employment to be "the production of commodities in the home, selling food at temporary locations on the street or in markets, service work in private homes, and seasonal wage labor in agriculture." For the most part, the income earning activities of women are as diverse as the women themselves, and they speak of practicality as well as creative efforts. While many of these economic activities are compatible with child care and domestic chores, more often they are not, bringing with them extensive workloads, long hours of labour and a heavy reliance upon networks of social relationships for day-to-day household assistance.

In keeping with the theme of the thesis, the following subsection reviews certain information which has been gathered on pastoral women's economic activities. These data are presented within the context of five brief case studies, which depict variations in the pastoral economic strategy of female milk marketing, as well as alternative income-generating activities. The case studies discuss: the Maasai of Kenya-Tanzania, the Nigerian Fulani, the Hawazma (Baggara) of Sudan, pastoralists of Somalia and the Borana of Ethiopia. A review of the research pertaining to the Ariaal Rendille pastoral women of northern Kenya is not presented in this section, but rather in the following chapter, where it provides an introduction to my own field research and analysis of the informal economy of Ariaal females.

4.4 Pastoral Women, the Informal Economy and Strategies for Survival: Five Case Studies

The following case studies briefly explore the economic strategies of five groups of pastoral women and examine the positive and negative effects arising from their enterprises. As Fratkin and Smith (1995:435) note,

> Among livestock pastoralists, as in other rural-based societies, women are responsible for feeding household members, either by acquiring and preparing food from their household's subsistence efforts, or purchasing foods with money acquired from the rural economy.

It is to these economic survival strategies that this review now turns.

Case Study #1 - The Maasai Women of Kenya-Tanzania

Currently, 300,000 Maasai pastoralists occupy the savanna grasslands located on either side of the Kenya-Tanzania border. Even though state pressure remains high upon Maasai to settle permanently and to integrate fully into the market economy, most Maasai households still pursue some form of subsistence pastoralism (Talle 1987, 1988, 1990). Nevertheless, for market purposes, Talle (1990:75) contends that the actual "production system of the Maasai is geared towards rapid growth in animals and a high milk yield."

The handling and control of dairy products are the exclusive right of the Maasai woman. She must decide how much to keep for household use, how much to distribute to close kin and how much, if any, she will sell. Although the most important staples in the Maasai diet are milk and milk products, a woman must bear in mind, while managing her supply, that milk is also the nutritional basis for herd reproduction (Talle 1988). Talle (1987, 1988, 1990) reports that during the wet season, many Maasai women sell small amounts of milk to customers in the local trading centres and that generally the cash

income derived from these sales, or from the vending of *ghee* and hides, is very modest. She states, however, that among the Tanzanian Maasai, when sales from milk became lucrative and milk marketing advanced into a larger, more organized enterprise, the control of products derived from livestock, along with their sales, was redefined within the family and subsequently fell into the hands of the household males. Talle (1988) noted that such large-scale marketing of milk, or male take-over, had not yet occurred among the Kenyan Maasai.

The increasing movement to transform the pastoral economy from a subsistence level to a market-oriented one has necessitated a cash income for Maasai in order to purchase foodstuffs and commodities. Talle (1988) writes that destitute Maasai women, who are without livestock products to sell, are often involved in the procurement and sale of firewood. They also peddle home-brewed beer and distilled liquor (*changaa*) to local males. Tourism in Kenya has created a demand for Maasai handicrafts and many women construct beaded leatherwork in order to obtain cash earnings (Talle 1988). The combination of livestock commoditization and the dry season scarcity of vegetation and water for livestock has led to meagre milk supplies for some women. The effects have cascaded into nutritional deprivation for Maasai families and feelings of social inferiority on the part of women, for they believe that "to live a full life, a Maasai woman must have her calabashes filled with milk" (Talle 1990:9). Due to the market potential of livestock and their derived products, the existing production priorities among the Maasai have caused changes in the social relations of production. Talle (1990:268) contends that contemporary Maasai women are currently disadvantaged because present social and

economic processes have widened the hierarchical division between the sexes.

Case Study #2 - The Fulani Women of Central Nigeria

In a detailed study of the role which settled Fulani agro-pastoral women of Central Nigeria occupy in the household level of dairy production and marketing, Waters-Bayer (1988) gives a full description of their socio-economic circumstances and income-generating activities. Formerly nomadic, the now settled Fulani of Abet, Central Nigeria, live in patrilineal encampments, or *rugas*, each of which is composed of one or more household units. A household can consist of more than one nuclear family and is defined by Waters-Bayer (1988:76) as all members "associated with one herd of cattle under the management of the household head." In all compound households and/or polygynous households, each married woman maintains her own dwelling. The *rugas* under study were situated on marginal or long-term fallow land that was negotiated for use by the Fulani with local farmers and village leaders (Waters-Bayer 1988:83). Although livestock-keeping was the primary occupation of the group, some cropping for cereal staples and the planting of women's kitchen gardens was also generally employed.

The herding and management of cattle, as well as milking activities, are presently handled by Fulani men. While pastoral women did the milking and traded milk products for household grain in previously nomadic times, modern economic circumstances and sedentary conditions have brought changes to former food provisioning responsibilities for both men and women. With a bowl of grain now equal in value to a bowl of milk, Waters-Bayer (1988:165) suggests that "the change to grain purchases almost exclusively by men out of the proceeds from [their] animal sales, has been partly due to changes in

the relative value of cattle, milk and grain."

Although both rising cattle prices and men's desire to regulate milk offtake to ensure profitable herd regeneration likely precipitated the men's take-over of livestock milking activities, women are currently able to own and sell livestock, and control the proceeds of their livestock sales. In her research, Waters-Bayer (1988:132) ascertained that "27% of all cattle in the 13 case study households belonged to women and girls." This positive situation for Fulani females has a great deal to do with the local institution of Islamic law. Waters-Bayer also points out that because cereals are presently the staple foods of the Fulani rather than milk, the current processing of grains, along with the processing and marketing of dairy products, take up so much of a woman's time that "she would have had difficulty finding the time for this additional morning task [milking]" (Waters-Bayer 1988:146).

While women are currently allotted small amounts of milk (less than 4 kg/day) by the men for household needs and for sale purposes, women still control the actual marketing activities and the earnings they gain from dairy sales. Waters-Bayer (1988: 152) notes that there are two ways "in which a woman could influence the amount of income obtained from the milk allotted to her: choice of product sold, and choice of market." A Fulani woman is, however, limited by factors such as the *ruga's* location from a market, availability and price of transportation, and the local demands for her products. On a year-round basis, milk is the most common product sold, generally in a fermented state (*nono*) and/or in a mixture with *fura*, whereas milk that is fresh is only marketed in the wet season and then by special customer request. Butter, which brings in

37 percent of the cash income derived from dairy products, is processed and marketed once a week during the wet season and less frequently in the drier weather (Waters-Bayer 1988:112; 167). *Nono* marketing is normally undertaken every second day, on an individual basis, each woman leaving the *ruga* with her products at 10:00 - 11:00 a.m., returning home again about 5:00 p.m.. If a woman happens to occasionally sell products for another woman, she retains no commission for herself (Waters-Bayer 1988). Dairy sales take place "not only at village markets, but at other regular selling points in villages and on roadsides, at employment sites, schools, churches, farmhouses, door-to-door in town, and to customers who came to the Fulani home" (Waters-Bayer 1988:131). Those women who sell in the town of Zonkwa obtain higher prices for their products than in the villages (Waters-Bayer 1988). Other income-generating activities of the more destitute Fulani women include the sale of petty commodities, such as salt, kerosene, and palm oil, as well as prepared foods, in the form of sorghum, bean or yam cakes (Waters-Bayer 1988:89).

Waters-Bayer (1988) notes that although there is seasonal fluctuation of women's dairy income, there is no fluctuation in the amount of offtake of milk, and women generally feel that men are not allotting them enough milk for their market sales. Many of the women express the desire to learn other skills, such as dressmaking, or needlecraft, which they feel might bring them more lucrative earnings (1988:170). Nevertheless, for a Fulani woman, the freedom to use the milk and the income from milk sales as she chooses provides her with a source of self-esteem. In addition, the activity of milk marketing itself grants her a social outlet to visit and meet with other women, often

allowing her to form beneficial socio-economic links with the households of the indigenous landowners (1988:175-176). In financial matters, the Fulani women of Abet appear to be more secure than many other pastoral women in Africa, for Waters-Bayers (1988) writes, "if women's income from the sale of their cattle is added to milk income, the women earned 34% of total cash income from the herd. The offtake of women's animals was less than half that of men's. Many men were obliged to sell stock to meet family needs, whereas women usually were not" (1988:182).

Case Study #3 - The Hawazma (Baggara) Women of Sudan

Michael (1987) describes the activities of the patrilineal segmented society of Hawazma, a subgroup of the Baggara people of western Sudan. Their social groupings are based upon patrilineal sublineages, which form *fariqs* or base camps, each camp being comprised of multiple household units that are maintained by the women. Gender roles in daily camp life are highly segregated, giving Hawazma females a fair amount of personal autonomy. Women build and own their dwellings and are in charge of the household activities. They are responsible for all household chores, with the exception of laundry and care of clothing, as each male and female - adult or child - looks after their own apparel. Women also control the moving of household paraphernalia during transhumant treks. While both parents share in most decisions concerning their children, Hawazma females are the primary source of child care (Michael 1987).

Hawazma are primarily cattle herders, although they do possess some camels and raise both sheep and goats. Males appear to dominate in the public realm, but in the private domain men and women have negotiated their roles in order to maximize

economic production (Michael 1987:106). Men are generally the owners of the herds, however women do the milking, have access to the milk and have the right to distribute the product. Due to the external market demand for milk, women have been able to negotiate their interests so as to include "the right to sell surplus milk and to control the proceeds" (Michael 1987:121).

According to Michael (1987), the Baggara women of Sudan have actually been involved in milk marketing since the 1930s, when Greek and Syrian cheesemakers first established their factories in the area. Currently the level of the urban demand for milk and milk products has increased and milk marketing is no longer the small local enterprise it once was. In many cases, patron-client relations are bittersweet, for while cheesemakers complain that pastoral women water the milk, they themselves are often guilty of mismeasuring and underpaying their female suppliers. During the dry season, when milk production is low and there is limited surplus for sale, women will sell their milk house-to-house in nearby towns (Michael 1987).

Michael (1987) writes that polygynous marriages do occur in the society and a man often has one wife in a given Hawazma camp and another in a sedentary crop-producing village. In these instances, exchanges go on between the two households, with the trading of dairy products for crops and *vice versa*. Yet most women prefer to live in camp, as it allows them access to milk and to revenue from dairy sales. There are other benefits as well, as camp-dwelling Hawazma women receive fewer restrictions on their movements than their sedentary counterparts. Thus, they are free to carry out their milk marketing activities at will and to travel periodically to visit relatives who live in other

areas (Michael 1987). While Hawazma men intimate that proceeds from milk sales belong to them, the cash actually ends up in the household tea can, an article which technically remains in the domain of women. With this money, a woman will purchase foodstuffs and other commodities for the members of her household (Michael 1987).

In summary then, within the Hawazma, the women remain as active decision-makers and milk managers, and their male kin, be they husbands, brothers or sons, have not, as yet, appropriated the dairy marketing activities, nor confiscated the income. Factors indicate that, while there is a 'public myth of male dominance,' women merely allow men to claim they are in control of the income (Rogers 1975). In the private domain, however, both males and females have other financial understandings.

Case Study #4 - Pastoral Women of Somalia

Peter Little (1994) writes of his study of the pastoral economy of the Lower Jubba region of southern Somalia and claims that in this area, herders, traders and urbanites are continually linked together because of the prominence of pastoral dairy marketing in the country (1994:167). He characterizes the region's dairy marketing system as strongly seasonal and competitive, with a "virtual lack of large-scale traders and wholesaling" (1994:168). Approximately 25 percent of the regional population of 275,000 is comprised of pastoral nomads, 45 percent are agriculturalists or agropastoralists, with the remaining 30 percent being urbanites (Little 1994:168). Dairy products are marketed in three regional towns, as well as in smaller settlements. The latter areas are supplied with milk by nomadic women on a fluctuating basis due to seasonal herd movement, whereas the larger towns are serviced throughout the year by periurban producers, urban-based

milk traders as well as by those pastoralists who are temporarily living in the area (1994:169).

According to Little (1994), the household market demand in Somalia calls extensively for sour camel milk (as it keeps well) and also fresh camel milk, both of which are available on a more regular basis than cattle-derived dairy products. Low-income households depend on the revenue from milk sales "to purchase maize, the area's staple food" (Little 1994:178). Some of the milk sales to consumers are transacted through urban based milk traders, or *abakaar*, who are often divorced or widowed females. Many of these women originate from impoverished nomadic families who are now settled near the towns. Lacking both livestock and land, the *abakaar* depend on milk sales for 80 percent of their income and they rely heavily upon rural-based intermediaries for their milk supplies. The major suppliers of fresh camel and cow milk at urban markets, however, are women from pastoralist households.

Little (1994:171-173) writes that while the income of nomadic traders is irregular due to the seasonality of their milk supply, when they do market, they average three times the weekly income of the *abakaar* and avoid the intermediary transaction costs by selling milk directly to the urban consumer. He also points out that 25 percent of nomadic traders are "young single women, who have never married" and unlike many of the *abakaar*, who are themselves heads of households, "a large majority of nomadic milk traders reside in households headed by males" (1994:173). Thus, Little (1994:172) maintains that often the milk earnings obtained by nomadic traders are additional to household income and not the major source of it.

Transportation costs are high for both the *abakaar* and the pastoral trader, as the former relies upon financially-compensated male truck drivers to provide rural-urban milk delivery, while the latter pays for lorry transport for each litre of milk, plus passage fare for herself. Little (1994:176) estimates that 40 percent of nomadic traders utilize motorized vehicles for milk marketing purposes. He also notes that with the exception of sour camel milk, there is a great deal of seasonal variation in prices for different dairy products, often making it necessary for households to substitute with powdered milk and more maize consumption when prices are high (1994:173).

Little (1994) comments on the food aid given to Somalia and its impact on the local dairy trade, pointing out that donations of powdered milk "may actually jeopardize food welfare among households that earn cash from milk sales" (1994:180). The influx of powdered milk in the Lower Jubba region appears to have had two effects: it has kept milk prices low, thereby reducing the income of the milk traders and herders, and "it also has begun to move the trade away from *abakaar* and other women into the hands of male traders who control the local trade in powdered milk" (Little 1994:180-181).

To add somewhat to Little's (1994) Somalian study, Poulsen (1990) notes that as national and international trade policies call for increased meat production and cattle marketing, in some areas Somalian pastoral males totally monopolize and control the relations of production in nomadic societies. He remarks that "the change to meat production means that herds tend to be larger and primarily male" (Poulsen 1990:148), indicating that Somalian pastoral females are being squeezed out of the milk marketing arena as the nutritional and commercial value of milk is superseded by purchased

carbohydrates and the sale of meat (Poulsen 1990).

Case #5 - Female Pastoralists of the Borana Plateau, Ethiopia

The following information is taken from the studies of Holden *et al.* (1991) and Holden and Coppock (1992), who surveyed the dairy marketing practices of a Borana community located on the central Borana Plateau, Ethiopia. The Borana are the largest ethnic group living in the semi-arid region and occupy sedentary encampments (*olla*), which consist of, on average, ten households each. Membership within an *olla* may be based on kinship, but is more apt to consist of "wealthier families with many cattle which need labor and poorer families which can provide labor, but need food and employment" (1991:39). There is marked wealth stratification in the socio-economic groupings and based on the ratio calculations of milking livestock (LLU or lactating livestock units) and total livestock holdings (TLU or Tropical Livestock Units) to people (expressed as AAME, or African adult male equivalents), the majority of Borana families are poor.

The basic unit of Borana production is the household, which contains, on average, two married adults, two or three children, twenty cattle and several other livestock selected from species of camel, sheep or goats. Herds are seasonally mobile, frequenting those grazing areas which have adequate water supply. Milk comprises roughly 50 percent of the Borana diet during the biomodally patterned wet seasons and 25 percent during the dry periods of the year. Maize cultivation is increasing, but for the most part, grain is purchased. The sale of livestock and derived products are the primary means of Borana income. Occasionally jewelry or household utensils are sold for cash, but only when absolutely necessary. Due to the current food shortages and the increased inability

of the pastoral system to mitigate the circumstances of the poor, many impoverished Borana are turning to the urban sector or to farming for employment. This has resulted in the deprivation of a "traditional source of cheap labor" for the wealthier pastoralists in the encampments (1991:41).

Extensive quantitative and qualitative surveys were conducted by Holden *et al.* (1991) and Holden and Coppock (1992), investigating dairy marketing amongst the Borana pastoralists. It was established that 20 percent of the annual household income came from the proceeds of dairy sales which were carried out by Borana women. These earnings were controlled by the women themselves and were often their sole source of income, enabling them to purchase grain at favourable terms of trade "since milk offtake in many Boran households was often insufficient for total food requirements" (1992:330). From the results of their statistical analyses, they found that there were marked interactions between household wealth, seasonal milk offtake and distance to market, noting that "the highest volume of dairy products were reportedly sold during the long rains, and this declined by 83% in the dry season. Households within 10 km of market sold 16 times more dairy products during the year compared to those located 21-30 km away" (1991:42).

Women who lived closer to market sold milk more frequently, which the researchers claim "reflects the cost of their time" (1992:330). Based on an assessment that it took one hour for a woman to walk five kilometres, "a woman living within 10 km. of market could take up to four hours to walk back and forth, compared to eight to twelve hours if she lived 21-30 km. away" (1992:330). In the latter situation, the distance/time

implication is that many other important responsibilities of a woman would have to be neglected (1992:330). The frequency of milk sales, however, is more likely to be an indication of the necessity of poorer women, with fewer household cattle available for market sales or for milk supply, to purchase a "survival ration of grain several times per week" (1992:331). Indeed, in an assessment of the main effects of distance to market on the reported mean intake of purchased grain for Borana women and children, Holden *et al.* (1991) concluded that "proximity to market and favourable terms of trade for grain are especially important for poorer families... the poorer a family is the greater the incentive would be to trade all of its milk offtake to purchase grain" (1991:52). Holden and Coppock (1992:331) report that with the reduction in milk supply in the dry season, impoverished Borana will redefine all milk offtake as surplus and sell the sum of it for grain. Diet surveys of Holden *et al.* (1991:52) also showed that as distance to market decreased, the grain consumption of women increased. The data revealed as well, that "as households became wealthier overall, women and children consumed more dairy products, with a decline in the relative contribution of grain to the diets of women" (1991:52).

Holden and Coppock (1992) conclude with several important observations. While they contend that "the patterns, costs, and benefits of dairy marketing" among the Borana of Ethiopia resemble those observed in other studies of pastoral dairy marketing, they caution against maintaining the notion that pastoralist milk sales are dependent on a surplus of milk which is over and above the nutritional needs of a household (1992:332). This idea, they state, "needs to be qualified for local circumstances" (1992:332).

Furthermore, based upon their studies, Holden and Coppock (1992) contend that dairy marketing among pastoralists and agro-pastoralists is a response to increased livestock poverty, and in future, they predict a heavier emphasis on dairy sales by Borana, as populations in the area grow and herd sizes further decline (1992:332).

From the information in the preceding case studies, it becomes apparent that pastoral dairy marketing hosts and/or promotes a wide range of behaviours and/or different circumstances for both genders within individual pastoralist societies. In the following chapters, I describe my fieldwork and research data pertaining to the milk marketing strategies of the Ariaal Rendille female pastoralists of northern Kenya. The research methods and analysis are introduced by way of a brief overview of the study area and its inhabitants, and within the context of previous and ongoing research investigations of the Ariaal Rendille society.

CHAPTER 5

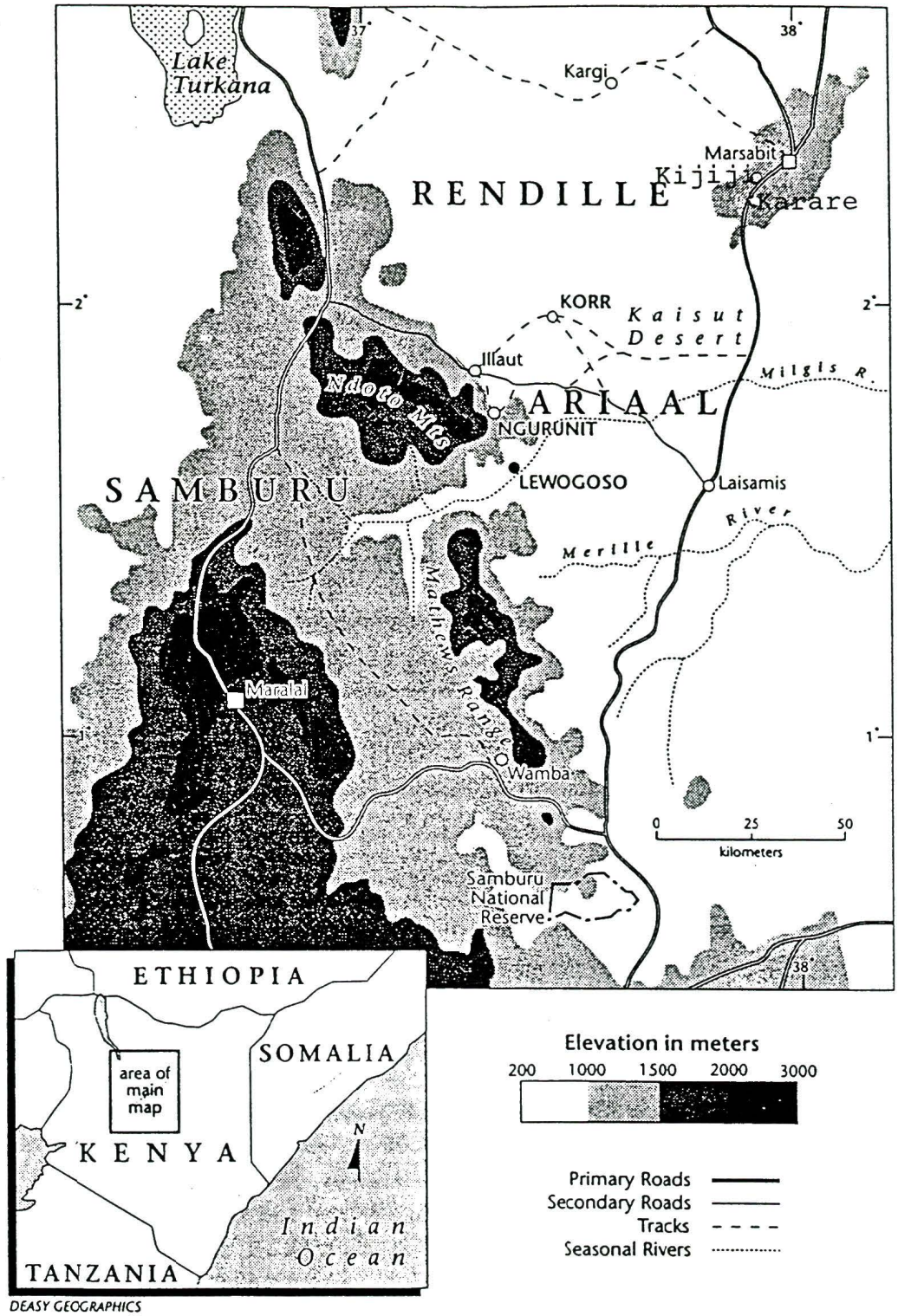
THE ARIAAL RENDILLE OF NORTHERN KENYA: A STUDY ON SEDENTISM, COMMODITIZATION AND FEMALE DAIRY SALES

5.1 Introduction to the Ariaal Rendille

The Ariaal Rendille are a camel, cattle and smallstock pastoralist society of about 8,000 people who inhabit approximately 25 patrilineal settlements in western Marsabit District, north-central Kenya (Fratkin and Smith 1994). For the most part, their communities are semi-sedentary and are alternately located in the arid Kaisut Desert lowlands, along the eastern base of the Ndoto Mountains, or in the moister forested highland areas on the western slope of Marsabit Mountain (Fratkin 1991) (see Map 5.1). Geographically, the Ariaal are nestled between Rendille camel-keeping pastoralists dwelling to the north and east, and Samburu cattle-raising pastoralists located to the west and south (Fratkin 1991, 1993). Like the Rendille, the desert-based Ariaal communities raise camels and smallstock, while the highland-dwelling Samburu-type Ariaal breed and herd East African Zebu cattle (Fratkin 1991; Fratkin and Smith 1995). Rainfall in the region is sparse and patterned bimodally (April and October), bringing an annual average of 500 mm. Precipitation can range from 1,000 mm in highland areas to less than 200 mm in the desert lowlands (Fratkin and Smith 1994:97).

Ariaal livestock production is organized by autonomous household units, each typically consisting of a household male head, his wife or co-wives, their children, and occasionally another kin-related dependent (Fratkin 1991:57). Similar to the Samburu, polygynous marriages occur more frequently in Ariaal Rendille than they do in the Rendille (Fratkin and Smith 1994:99). Each wife in the household unit is considered

Map 5.1 Location of Ariaal, Samburu and Rendille in Kenya



(After Fratkin and Smith 1994:98. Reproduced with permission of E. Fratkin)

responsible for building and maintaining her own house (Fratkin 1991:57). For the Ariaal woman living in the lowlands, her abode is a large Rendille-type dwelling, fabricated from woven sisal mats attached to a portable wooden frame (Fratkin 1991:25). Highland Ariaal generally prefer the low squat wooden structures of Samburu design, which are covered with a mixture of mud and cattle dung (Fratkin 1991:25). Seventy percent of Ariaal nutritional intake consists of milk, which is derived from their female livestock. Other dietary components are purchased tea, sugar and grains, and on special occasions, meat. Blood is periodically tapped from living animals and generally ingested with milk (Fratkin and Smith 1994:99). The majority of Ariaal livestock are female and with the exception of several stud animals, male livestock are castrated and maintained for meat and market exchange (Fratkin and Smith 1994:99).

The Ariaal prototype for division of labour is based on age-gender social categories. Married men, or elders, who own the livestock, are responsible for the well-being of herds, maintenance of water wells, milking of camels and the political and ritual leadership of their communities. Members of the warrior age-set and adolescent boys do most of the herding, taking non-milking animals out to graze, either on a daily basis, or for longer periods of time. Younger boys assist in the care of any smallstock remaining near the settlement. Married women milk the cattle and smallstock allotted for domestic purposes and are in charge of all household duties including child care. Younger females assist with household chores and, when and wherever necessary, all Ariaal females can be called upon to undertake herding responsibilities and livestock care. Manufacturing tasks related to house construction and household equipment are primarily carried out by

adolescent and married Ariaal females (Fratkin 1989:433; Fratkin and Smith 1994:100-102, 1995). Time allocation surveys of the Ariaal (see Section 3.2) conducted by Fratkin and Smith (1994, 1995) indicate that the amount of time an individual spends in any of these tasks is affected by the wealth, size and composition of his/her household, as well as the type of livestock that is raised (1994:108).

For the most part, the socio-economic and geopolitical boundaries between Ariaal and the two neighbouring Rendille and Samburu societies remain fluid and open. Related to both groups by marriage and descent, the Ariaal Rendille developed a distinct cultural identity blending customs and practices from both parent tribes (Fratkin 1991). The Ariaal follow the Samburu age-set organization and incorporate the Samburu segmentary descent group system (Fratkin 1991:29-31). Males are circumcised upon initiation into the warrior age-set, whereas females are circumcised just prior to marriage (Fratkin 1991:29-31). Like the Samburu, Ariaal have beliefs in sorcery and pay high homage to the *loibonok*, a ritual diviner or medicine man (Fratkin 1991:25). Yet similar to the Rendille, the Ariaal follow certain cyclical rituals such as *almhado* and *soriu* to bless and ensure the well-being of their herds (Fratkin 1991:25). In parallel fashion to Rendille, they live in large clan settlements (10-50 houses) and construct a ritual centre, or *na'apo* in the heart of each Ariaal community (Fratkin 1991:25). Prayers are frequently offered by 'traditional' Ariaal to a supreme force (called *Ngai* in Samburu or *Wakh* in Rendille) in an appeal for fertility, rain and peace (Fratkin 1991:25). In the linguistic realm, Ariaal males are more fully bilingual in Rendille (a Somali-related Cushitic language) and Samburu (a dialect of Maa) than are Rendille men. In a 1985

survey, findings revealed that 91 percent of the Ariaal male respondents were fluent in both languages, whereas only 27 percent of Rendille males showed similar bilingual versatility (Fratkin 1993).

5.2 Previous Research and the Ariaal Rendille

The Ariaal Rendille were first ethnographically described by Spencer (1973) within the context of his research (1957-1962) on the interdependence and separateness maintained by the Samburu and Rendille in their socio-economic alliance. At that time, he observed the median socio-economic and geographical position which the Ariaal occupied between the two tribes.

In an historical overview, Spencer (1973) makes reference to the episodes of disease which ravaged both humans and livestock in Kenya during the late 19th century (1973:157-158). Otherwise known as the disaster (*emutai*), this period brought sweeping economic changes to Rendille and Samburu households, reducing many of them to an impoverished state. Spencer (1973) noted that the Ariaal were thought to have originated with the mutual merging of poorer Rendille proper and camel-seeking Samburu and the subsequent intermarriage of their descendants (1973:131-132).

In one encompassing paragraph, Spencer (1973:132) facilitates a glimpse of the Ariaal social structure and socio-economic strategies during the years of 1957-62 and portrays the underlying diverseness of the society. Notably Spencer (1973) also identifies women as 'managers' of cattle. He writes,

> In many cases, one elder may own both camels and cattle. His first wife is often a Rendille girl who lives in one of the

> Ariaal settlements of his clan with his camels; and his second wife, who may be either Rendille or Samburu, lives in a Samburu settlement in the vicinity and looks after his cattle. In his Ariaal home, this man is an Ariaal, speaking Rendille and observing Ariaal Rendille customs; and in his Samburu home, when he visits it, he is a Samburu speaking Samburu and observing Samburu customs. (Spencer 1973: 132)

More recent studies of the Ariaal Rendille have been conducted by Fratkin (1986, 1989, 1991, 1993), who integrates ethnographic information with contemporary developmental issues. Like Spencer (1973), Fratkin (1991) discusses the Ariaal admixture of Rendille and Samburu cultural features, but views the Ariaal and their pastoral adaptations primarily within the context of: state and tribal political disruptions; ravaging episodes of drought and disease; livestock loss and recent sedentism; and contemporary missionary influence, development programs and socio-economic change. These issues, which affect all East African pastoralists to varying degrees, have been broadly outlined in the previous chapters, and Fratkin (1991) discusses them in detail in relation to the Ariaal.

In brief, the sedentarization process for pastoralists in Marsabit district, northern Kenya, commenced in the 1960s following Kenyan Independence (1963) and the regional influx of international agencies and Christian missionaries to assist with development. In the same decade, there was enormous social disruption and dislocation in northern Kenya caused by the *shifta* (bandit) war (a secession movement led by Somali people). This was followed by the disastrous droughts of the 1970s and 1980s, resulting in large numbers of impoverished pastoralists, massive famine-relief efforts on the part of the missions, and the growth of permanent pastoral settlements around mission-sponsored

food distribution centres (Fratkin 1991:76; Fratkin and Smith 1995:438; O'Leary 1990; Sobania 1988).

While the Ariaal are currently affected by the environmental hardships and political and socio-economic processes that other northern Kenyan pastoralists are presently facing, on a societal level their pastoral productivity has not been diminished to the extent that it has in other tribes. What Fratkin (1991) notes as unique to the Ariaal is their generalist strategy in terms of food production activities (1991:11). With a strong understanding of 'strength in diversity,' Ariaal attempt to buffer their households against environmental and economic risk by maintaining both lowland and highland communities, a mixed-species composition of livestock (camels, cattle, goats and sheep), as well as polygynous marriage forms. As Fratkin (1991:11) writes, the Ariaal are even apt to view "the missions as one more resource to utilize in a hazardous and unpredictable environment" and Ariaal males frequently relocate one wife of the household to live near a mission town. In this way, the family can take advantage of the educational, medical, employment and/or settled agro-pastoralist development opportunities often sponsored by missions centres. Alternately, one wife of the household will remain with her children in an Ariaal herding community (Fratkin 1991: 11).

Other assessments of the current Ariaal transition to sedentism and the changes in Ariaal socio-economic and nutritional status have been ongoing for several years (Fratkin and Roth 1990; Fratkin and Smith 1994, 1995; Nathan *et al.* in press). In the Ariaal settlement of Lewogoso Lukumai, Fratkin and Roth (1990) examined the effects of the

1984 drought upon Ariaal household herd holdings. Findings from their pre- and post-drought comparison of absolute numbers of livestock revealed that drought increased the disparities of livestock wealth between richer and poorer households, doubling the number of poorer units. They suggest that drought-induced livestock loss and ensuing pastoral impoverishment contributed to the increased movement of Ariaal to mission towns in search of famine relief aid (Fratkin and Roth 1990:387). In another study, Fratkin and Smith (1994) examined the high variation in Ariaal settlements, household size and livestock holdings and the diverse economic strategies adopted by richer and poorer household members. They found that coping strategies included labour and livestock exchange; hiring, adopting or marrying additional labour; or in the case of the destitute, who had no chance of herd recovery, pastoral migration to towns in quest of employment and/or famine relief food donations (1994:108).

Within the context of a larger ongoing study on sedentarization and its effects upon Rendille and Ariaal health, demography and economics, further investigations by Fratkin and Smith (1995) examine Ariaal/Rendille pastoral production activities in nomadic and town settlements, and the various economic strategies pursued by women. As mentioned in Chapter 4, Fratkin and Smith (1995) contend that pastoral sedentarization in, or around towns can bring positive benefits to some pastoral women, allowing them to increase their economic opportunities through the sale of fresh dairy products, garden produce and petty commodities, or as wage labourers (1995:433-434). They suggest in particular that proximity to town markets may allow some women to increase their milk sales, earning monies for the regular purchase of maize meal during

sessions of drought (1995:450). This increased opportunity for cash sales, they state, may have a beneficial effect for the nutrition of children (1995:435). Such suggestions were reached pursuant to the following investigations.

In May and June 1992, five Rendille/Ariaal communities were surveyed by Fratkin and Smith (1995) for production activities and economic strategies: three lowland settlements consisting of Lewogoso (camel pastoralists), Korr (a desert-based town), and Ngurunit (a town near the base of the Ndoto Mountains); and two previously unresearched Mount Marsabit highland communities composed of Songa (sedentary agriculturalists) and Karare (sedentary cattle pastoralists) (1995:439). Fratkin and Smith's (1995) findings from time allocation surveys taken in both nomadic and town communities indicated that regardless of settlement type, a woman's labor time remained at 65 percent of her day. Men's labour time however, differentiated between 50 percent in a nomadic setting and 25 percent in a town community (1995:445).

Fratkin and Smith (1995) noted that each day clusters of women from Karare walked 17 km to Marsabit town to market milk. Likewise women from Songa walked 14 km to sell vegetable produce at the market in Marsabit. A road-side survey of women's market transactions was obtained in interviews with women as they returned home to their communities (1995:440). In the survey, women were asked "what type and how much produce was sold, how many times per week they sold produce, and whether they were selling for other women as well as themselves. Women also described what commodities they had purchased that day" (1995:440). Table 5.1, adopted from Fratkin and Smith (1995:445), records some of their findings.

Table 5.1 Average Weekly Income Earned from Milk and Vegetable Sales, Marsabit Women, June 1992. (After Fratkin and Smith 1995:445)

	Number of women	Sales/ week	Mean sales K.sh./week	Mean purchases K.sh./week
Songa (vegetables)	39	3.4	79.9	68
Karare (milk only)	61	3.4	67.3	63

Although there was no mention as to whether women were selling products for other women along with their own, Fratkin and Smith (1995) do note,

> Women from both communities convert their earnings directly into food purchases, while only a few women reported giving some money to their husbands or saving money for expenses such as children's school fees. This survey did not report additional money that husbands gave to their wives from the sale of livestock, which is the main source of income used to buy food in pastoral communities. (1995:445)

Further surveys were conducted in all five communities to obtain household budgets, dietary recalls, and anthropometric measurements of women and their children under the age of seven years. Results showed there was a high consumption of milk by the camel-keeping Lewogoso and cattle-keeping Karare, with the latter community consuming "larger quantities of maize meal, tea, and sugar, owing to their greater participation in the cash market and proximity to Marsabit town" (Fratkin and Smith 1995:445-446). The diets of Songa residents had the highest variation in food-types, likely reflective of their garden-growing activities and vegetable market sales which enabled maize meal purchases (1995:446). Analyses of anthropometric measurements

did not reveal any significant differences between the five communities for the nutritional statuses of children (1995:446).

Also within the context of health, demographic and economic issues related to pastoral sedentarization, Nathan *et al.* (in press) examine more closely the impact of Rendille and Ariaal sedentism on maternal and child health and nutrition. The study population parameters were confined to the three lowland - yet ecologically and economically distinct - Rendille/Ariaal communities previously contained in Fratkin and Smith's (1995) study: Lewogoso (a fully nomadic settlement subsisting primarily on milk camels and trade of cattle and small stock); Ngurunit (a sedentary agro-pastoral group possessing a limited number of camels, cattle and smallstock); and Korr (a mission-based town, whose residents rely heavily upon famine-relief and/or livestock sales). Surveys of anthropometric measurements, physical histories and examinations, haemoglobin measurements, dietary recalls, household livestock holdings, type of livestock and weekly food expenditures, were conducted in July 1990 and June 1992 on 105 mothers and their 174 children under six years of age. Utilizing different anthropometric measurements from those of Fratkin and Smith (1995), Nathan *et al.* (in press) found that during the drought year of 1992, there *was* significantly more malnutrition among children under six in the sedentary communities than in the camel-keeping nomadic community. Nathan *et al.* (in press) attribute this to differences in dietary regimes, noting that during the drought year, milk intake of nomadic children was three times that of sedentary children, while the diets of the latter were centred on starches, fat, and sugar.

It was within the context of this research by others that my own fieldwork and research with the Ariaal took place. Accordingly, the following chapter outlines the materials and methods utilized for data collection in the community of Karare, Kenya, during July - August 1995.

CHAPTER 6

MATERIALS AND METHODS

6.1 Introduction

In effect, the theme and methods of my study with the Ariaal of Karare were determined by a larger research project entitled *Concomitants of Sedentism and Female Milk Marketing for Ariaal Rendille Pastoralists of Northern Kenya*. This ongoing parent project, funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), lies under the direction of my graduate supervisor, Dr. Eric A. Roth, Department of Anthropology, University of Victoria, Victoria, British Columbia, Canada. The main thrust of the parent project is to examine, over a three-year period, the social and biological concomitants of sedentary female milk marketing in the formerly nomadic Ariaal Rendille community of Karare and to assess whether female milk marketing benefits the health, growth and nutrition of Ariaal Rendille children. The SSHRC study also operates in collaboration with a National Science Foundation (NSF) funded project, entitled *Social, Demographic, and Health Consequences of Pastoral Sedentarization in Marsabit District, Kenya*. The principal investigator of the NSF project is Dr. Elliot Fratkin, Department of Anthropology, Smith College, Northampton, Massachusetts, USA. Co-investigators are Dr. Eric A. Roth, Dr. John Galaty and Dr. Martha Nathan. Accordingly, the research on the socio-economic aspects of sedentary Ariaal female dairy marketing, as contained in this thesis, is but one 'part' of a larger concerted effort directed towards the betterment of health, nutrition and socio-economic conditions for all pastoral people in northern Kenya.

6.2 The Study Population

The Ariaal Rendille community of Karare (population 2,000) is situated in north-central Kenya on the lower western slope of Mount Marsabit, 17 km downhill from the district's capital of Marsabit. The Karare community consists of traditional *manyattas* (clan-based settlements) scattered within a 10 km radius from the Karare centre. Recent drought, intertribal warfare, and loss of grazing land to a nearby national game preserve has restricted the mobility of community members, causing considerable reduction in livestock holdings of many. A proportion of the *manyattas* consist of sedentary agro-pastoral Ariaal while the rest are composed of either sedentary or semi-sedentary cattle pastoralists, who often graze their animals inside the forested state preserve. Just as Fratkin (1991:24) notes "there is no 'typical' Ariaal community," I also observe that there is no 'typical' Ariaal *manyatta* within the community of Karare as a whole.

The Karare centre consists of a very small *soko* (two market stalls), several tiny shops, and a cluster of residential dwellings belonging to Ariaal. These are located just road-side to the only transportation route in the north which links Marsabit and the area to Isiolo and Nairobi. With the exception of lorry and truck transport movement to and from the south, the rugged corrugated road and paucity of locally-owned vehicles keeps traffic at a minimum. Lying within a ten-minute walk from the Karare centre is the Kargi-Karare Catholic Mission which supplies the community with a priest and church, elementary school, medical dispensary and a piped water well. At times the relations between the mission and the Ariaal appear troubled, as regular access to education, medical services and/or water supplies is often dependent upon the personal 'likes and

dislikes' of the local priest. An alternative source of piped water for the community exists in the agro-pastoral settlement known as the Scheme. This watering point was established in the 1970s by the National Council of Churches of Kenya as part of a famine-relief project for irrigated maize farming (Loltome, per. comm.; Fratkin 1993). Water availability in all settlements was scarce during 1995, due to minimal precipitation during wet season rains and continuous drought throughout the area.

6.3 Materials and Methods

The initial plan for my five-week introduction to anthropological fieldwork was twofold: to explore, at the household level, the economic specifics of milk marketing by Ariaal women of Karare, which Fratkin and Smith (1995) previously noted to be somewhat lucrative and positive as far as women's economic circumstances and children's nutrition were concerned; and, at the community level, to examine the 'emic' perspectives of Ariaal women regarding the advantages and disadvantages of sedentism. University authorization for research involving human subjects and the Kenyan government's approval for research had been obtained by the SSHRC sponsored project. My investigations were fully covered under the auspices of these permits and authorization was confirmed in a letter of introduction to local leaders and authorities by the District Commissioner of Marsabit, Kenya.

6.3.1 Investigative Materials

In the six months prior to my summer fieldwork of 1995, I undertook an extensive literature review of women's marketing activities in both West and East Africa to gain a

broad understanding of the socio-economic position and roles of women within each area. The knowledge which I acquired from certain readings also enabled me to contribute heavily to pre-field work formulation of quantitative and qualitative questionnaires. These were designed specifically for the investigation of Ariaal women's dairy marketing and issues related to sedentism (Horn 1994; Talle 1988; Waters-Bayer 1988).

The quantitative questionnaire, entitled *The Ariaal Rendille Milk Marketing Study* (see Appendix A), was primarily intended for household level analysis aimed at understanding milk production, offtake and sales income. It was basically designed to ascertain the following: Who goes into milk marketing (in terms of marital status, number of children and/or dependents, level of education and household wealth)? Did Ariaal milk marketing arise to promote economic autonomy for women and/or was it a forced response to poverty? Is milk marketing a lucrative enterprise and does it affect women's economic autonomy within the household? How do women allocate the cash earned from milk sales and what food products do they purchase? Other quantifiable data were also sought regarding: women's annual incomes; the pooling or nonpooling of household incomes; the perceptions of Ariaal women regarding their traditional responsibilities *vis-a-vis* their children; women's networking; and weekly time allocations of women's marketing and domestic activities. In order to obtain a quantifiable indication of women's individual- and community-based requirements, women were also asked to refer to their major problems and needs.

The qualitative questionnaire, entitled *The Ariaal Rendille Group Questionnaire*

(see Appendix B), was intended for a community-level exploration of women's perceptions regarding the advantages and disadvantages of sedentism. The questionnaire was additionally aimed at eliciting a free-flow of information on the following: How has sedentism affected Ariaal women's socio-economic roles? What are women's opinions, and those of their spouses, regarding female milk marketing? How have development and sedentism changed cultural practices, beliefs and norms among the Ariaal, not only in the realm of the importance of milk, but in other facets of their lives as well?

6.3.2. Methods of Investigation

While my introduction to the Rendille people of north-central Kenya was entirely facilitated by Dr. Eric Roth, my acceptance into the Ariaal community of Karare was made possible by Dr. Elliot Fratkin and his graduate student, Kevin Smith. Kevin had just completed one year of dissertation fieldwork in the area and it was with his invaluable help that arrangements were made for my accommodation and the hiring of three female Ariaal field assistants who were fluent in either English/Samburu and/or English/Rendille. It was these pre-arrangements which enabled me to begin the interview process immediately following a two-day orientation to the field. It was also because of these contacts and introductions that I was able to mingle with Ariaal women in the Karare community and observe their activities during my five-week stay.

There was, however, one slight revision of the original research plans as far as the actual study population was concerned. When my field supervisor, Dr. Eric A. Roth, and I arrived in Karare in July 1995, we discovered that the majority of women who sold milk in Marsabit had recently moved to the Ariaal settlement of Kijiji, approximately 7 km

closer to the town of Marsabit. While Karare was still maintained as our base camp, a decision was made to conduct the interview process with female milk marketers in two settlements: at Kijiji, with women who sold milk in Marsabit; and in the Karare area, with those who marketed milk at the local Karare *soko*. All field assistants were advised and consulted regarding the research objectives, methodologies, procedures and issues related to confidentiality.

Quantitative Survey

Over the course of five weeks of fieldwork, *The Ariaal Rendille Milk Marketing Study* questionnaire was administered in formal structured interviews with 48 Ariaal women, each of whom belonged either to the semi-sedentary pastoral settlement of Kijiji or the sedentary pastoral settlement of Karare-Kulapesa. Since the study was to include only those women who sold milk, preliminary inquiries and rough mapping processes were initially conducted to ascertain which households in these settlements sold milk. In Kijiji, milk was sold in Marsabit by just about every household, so the elimination of those that did not was not a difficult process. Sampling from the Kijiji settlement, however, was somewhat complicated by the fact that it was divided into two *manyattas*: one composed of Samburu-speaking Ariaal, who occupied approximately 100 houses (hereafter referred to as Samburu Kijiji); and the other consisting of Rendille-speaking Ariaal and Burgi, who occupied a total of 21 houses (hereafter referred to as Rendille Kijiji). The Burgi were a composite group of impoverished Ethiopian farmers who were employed as herders by absentee Ariaal livestock owners. Since the Burgi households did not sell milk, they were immediately eliminated from the study.

The sampling procedure employed for the selection of women from those who sold milk was somewhat unorthodox, differing in each *manyatta*. The large *manyatta* of Samburu Kijiji was geographically divided in half during the mapping process and one primary female was selected from each of the 19 dwellings clustered to the immediate right of the division line. In Rendille Kijiji, a primary female was selected from each of the 15 remaining houses in the *manyatta*, following the elimination of Burgi households from the study. While technically, the Rendille-speaking Ariaal in Kijiji consist of an entire population, for purposes of this study they are considered a sample population.

In the Karare-Kulapesa area, the settlement of Kulapesa (located roughly 1 km from Karare centre) was mapped in order to determine which women sold milk in the nearby Karare *soko*. This process revealed that ten women from ten different houses were involved in marketing milk. Also included in the Karare-Kulapesa sample were two women from the settlement of Lekartunya, another (1) from Nasikakwe and one (1) from the Karare centre itself. The latter four presented themselves at the Karare *soko* and asked if they could participate in the survey.

In summary then, a total of 48 Ariaal women were included in the quantitative milk marketing survey: 19 from Samburu Kijiji; 15 from Rendille Kijiji; and 14 from Karare-Kulapesa. Table 6.1 presents descriptive indicators which identify, at the settlement level, the women from each *manyatta*. Mean figures represent the number of people in each household, number of live children belonging to each woman (although not all of these were living in the household with her), years a woman had been resident in the settlement and the average years she had been in milk sales. Women's marital

TABLE 6.1 THE ARIAAL RENDILLE MILK MARKETING QUANTITATIVE STUDY
DESCRIPTION OF SAMPLE
MEANS AND FREQUENCIES BY SETTLEMENT
(JULY - AUGUST 1995)

SAMPLE DESCRIPTORS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
NUMBER OF HOUSEHOLDS - REPRESENTED BY INDIVIDUAL WOMEN	**19**	**15**	**14**
$\bar{X}$ NUMBER OF PEOPLE / HOUSEHOLD	4.3	3.4	5.0
$\bar{X}$ NUMBER OF LIVE CHILDREN / WOMAN	3.7	2.5	4.4
$\bar{X}$ YEARS RESIDENT IN SETTLEMENT	1.0	1.1	23.9
$\bar{X}$ YEARS IN MILK SALES	8.8	0.7	7.9
WOMEN'S MARITAL STATUS			
- % MARRIED	89.5%	80.0%	71.4%
- % SINGLE / DIVORCED / WIDOWED	10.5%	20.0%	28.6%
- % WITH CO-WIVES	52.7%	20.0%	57.1%
- % WHO LIVE WITH HUSBAND	68.4%	80.0%	64.3%
WOMEN'S LANGUAGE SKILLS			
- ENGLISH	0.0%	0.0%	0.0%
- RENDILLE	15.8%	100.0%	71.4%
- SAMBURU	100.0%	53.3%	100.0%
- SWAHILI	5.0%	13.3%	28.6%
FORMAL EDUCATION OF WOMEN			
- 1 - 3 YEARS	5.3%	6.7%	7.1%
- NONE	94.7%	93.3%	92.9%

status, women with co-wives and an indication of how many women resided with their husbands, are all represented by frequency measures. Women's language skills and years of formal education are similarly figured. The findings of Table 6.1 will be discussed in Chapter 7.

Formal sessions of structured interviews with Ariaal women regularly took place by appointment, in either Samburu Kijiji or Rendille Kijiji in the mornings, and in the Karare *soko* in the afternoons. I was always assisted by one of three female Ariaal interpreters, depending on whose linguistic skills were needed. Each interview took approximately 90 minutes and the data were meticulously recorded by hand on 48 individual questionnaires. Each Ariaal woman was paid 100 K.sh ($2 Can.) for her participation in the study. The patience and courtesy extended to me by all the Ariaal interviewees and translators was remarkable and much appreciated. The questions demanded extremely detailed quantifiable answers and, since milk marketers from both Samburu and Rendille Kijiji participated in work-sharing and commissioned arrangements for milk sales in Marsabit, calculations of their milk income became rather complicated. As a rule, the women who marketed milk in Karare did not work-share or participate in commissioned sales. With regard to any milk offtake and monetary calculations, it was also necessary to take into consideration the differing amounts of milk available to each woman for household use and sales in wet and dry seasons, and differing prices of milk per cup (standardized to 4 ounces) per season. Women selling in different market locales (Marsabit or Karare) had differing seasonal milk prices per cup as well.

Upon completion of the 48 *Ariaal Rendille Milk Marketing Study* questionnaires, my field supervisor and I attempted to cross-check the information which was gathered on women's milk sales and food purchases by implementing a road-side survey with the Samburu and Rendille Kijiji women as they returned home from Marsabit market. The success of this survey, however, was primarily hindered by time constraints, as our departure from Karare was scheduled to take place within several days. Our attempt to administer the survey on the one day available to do so was thwarted by the fact that road construction was underway on the main route from Marsabit to Kijiji. In order to avoid the difficulties of navigating through the construction zone on foot, many women whom we had hoped to interview had obtained lorry transportation from Marsabit to the Kijiji area, rather than walk their usual route home. We did manage to intercept four women as they journeyed home on foot and, by way of our Ariaal male interpreter, they informed us of the day's earnings from milk sales and of their purchases from the Marsabit market. The survey time was approximately five minutes per woman and each interviewee was paid 20 K.sh. for her participation. The particulars and results of the road-side check are set out in Table 7.11 of Chapter 7 and are elaborated upon within the context of the research findings.

Despite our rather unsuccessful attempt with the road-side survey to cross-check the information gathered from *The Ariaal Rendille Milk Marketing Study* questionnaire, there are several strong reasons why the data obtained in the milk marketing study are considered to be reliable. In both the Kijiji *manyattas*, each interview took place within the private confines of a vehicle - one interviewee per session. This provided each

woman with a certain amount of privacy as far as any personal sensitivity over her household and individual finances were concerned. Secondly, all women were paid equal amounts of money for participation, eliminating any monetary motives for offering misleading or biased information.

While I have full confidence in the reliability of the data, the possible biases and/or pitfalls inherent in this type of study do need to be mentioned here. While the interview setting afforded some sense of privacy, this situation did make it possible for women to either exaggerate or reduce the measures/amounts in the offered information without worry of contradiction from family members or peers. At the same time, underlying fear of reprisal from husbands or tax agents, should financial confidentiality be breached, could have also led to distortions in the data. As well, there was often familiarity between the Ariaal field assistants and interviewees in each of the *manyattas*, which may have altered some women's responses. Another possible bias lies in the recall method used by Kijiji women to describe all amounts and measures. For the Karare-Kulapesa group, the interviews were conducted with individual women at the *soko* and while these often occurred in the presence of other Ariaal women, once again the information generated was based on personal recall by all women and was information I did not personally observe.

Reliability is also largely dependent upon: cross-cultural comprehension of the phrasing, wording and meaning of questions and answers; and the translation skills and/or abilities of Ariaal field assistants as cross-cultural mediators of concepts. My comprehension of Samburu and Rendille was less than elementary, which made it

impossible to assess whether all responses were strictly those of the interviewee or whether some were amended or abridged by field assistants during the process of translation.

Despite the above apprehensions and the absence of previous records of quantified case materials from these households, I strongly defend the reliability of these data, basing this claim upon the methods of data collection and the statistical methods employed in analysis.

Qualitative Survey

During the last two weeks of July-August 1995 fieldwork, *The Ariaal Rendille Group Questionnaire* was carried out in the Karare community through the process of eight informal focus group interviews. The purpose of the focus groups was to understand Ariaal perspectives on: the disadvantages and advantages of sedentism; female milk marketing; the current importance and availability of milk for Ariaal nutrition and customary practices; contemporary conditions for Ariaal women; issues related to education; and, if applicable, the possible connection between sedentism and alcohol-related problems in Karare.

While focus groups generally consist of seven to ten participants who are unfamiliar with each other (Krueger 1988:18), the average Ariaal focus group consisted of five individuals, all well-known to one another. Factored into the average group size were the Ariaal field assistants, since they were invited to present their views throughout the sessions. Table 6.2 delineates the date, membership composition and language used in each focus group. One group session was moderated by Dr. Eric Roth, SSHRC project

TABLE 6.2 THE ARIAAL RENDILLE QUALITATIVE GROUP QUESTIONNAIRE DESCRIPTION OF SAMPLE GROUPS (JULY - AUGUST 1995)

GROUP	SESSION DATE	SEX AND NUMBER OF PARTICIPANTS	MODERATOR(S)	INTERPRETER(S)	LANGUAGE SPOKEN
1	07/25/95	4 FEMALES	J. MITCHELL	1 FEMALE 1 MALE	RENDILLE
2	07/27/95	4 FEMALES	E. ROTH	2 MALES	SAMBURU
3	07/29/95	4 FEMALES	J. MITCHELL E. ROTH	1 FEMALE	RENDILLE
4	08/01/95	4 FEMALES	J. MITCHELL	1 FEMALE	SAMBURU
5	08/01/95	4 FEMALES	J. MITCHELL	1 MALE	SAMBURU
6	08/02/95	2 FEMALES 2 MALES	J. MITCHELL	1 FEMALE	RENDILLE
7	08/03/95	3 FEMALES 1 MALE	J. MITCHELL	1 FEMALE	RENDILLE
8	08/04/95	2 FEMALES	J. MITCHELL	1 FEMALE	RENDILLE

director, six focus group interviews were moderated by myself and a single session was moderated jointly by the two of us. We were assisted with translations by either one or two Ariaal male and/or female field assistants per session.

The study area for focus group interviews was centred around Karare itself, as well as the agro-pastoral settlement known as the Scheme. Initially this area was not specifically defined by us as the study area, but ended up being so as a result of the selection process for focus group participants. Selection of Ariaal for all focus groups was carried out with the use of 'snowball' sampling techniques. This method initially involved personal contact with an Ariaal field assistant, either male or female, followed by recruitment of the focus group members *via* the field assistant's own social networks. All Ariaal field assistants (three females and two males) and the 27 adult Ariaal females and three adult Ariaal males who participated in the group sessions, lived in, or within close proximity to, the Karare centre and/or the Scheme. Although we encouraged field assistants to invite adult Ariaal women to the group sessions, any Ariaal men who wanted to participate were not excluded from the study.

Of the eight focus groups, five consisted of Rendille-speaking Ariaal, while three were composed of Samburu-speaking Ariaal. The age of Ariaal participants ranged from approximately 20 years through to elderhood. Although information about marital status was not requested, it appears from translated conversations and personal observations that all 29 women were either married, widowed or divorced. Each focus group session was held at the house of one of the attending participants. At an appointed time, all participants assembled either inside, or outside of the designated home, depending upon

the wishes of the host. Each session was approximately one hour and was taped on audio-cassette for transcription purposes. All individuals were paid 100 K.sh. ($2 Can.) each for their participation in the study.

Identical open-ended questions were posed to all participants in the eight focus groups. In the initial phase of each session, Ariaal women often appeared shy and were hesitant to speak, resulting in the moderator's frequent use of Krueger's (1988:82-83) two essential response techniques - the probe and the pause! Field assistants helped to ease the tension considerably by periodically expressing their own opinions and ideas. This would commonly spark a retort or further conversation by others, helping many women to relax and participate fully in the sessions. In contrast to Ariaal women, the Ariaal men in the study had no trouble in expressing their opinions.

The responses from the Ariaal who participated in the focus groups are assessed as reliable for several reasons: the participants were not pressed to give responses and were free to remain silent; the nature and format of questions were such that there would be no advantage or gain for the Ariaal to be misleading; and, their views and perceptions were expressed among family members and peers, which would perhaps deter any offering of untruthful or outrageous opinions. Any biases which might have affected data reliability would have occurred during translation and/or interpretation processes. Again, my lack of linguistic skills in either Rendille or Samburu leaves me no way of assessing these latter reliability factors.

6.4 Summary

My stay with the Ariaal of Karare was all too brief, and although I actually lived and worked within the community itself, both the nature and duration of my study did not allow for full participation in the daily activities of any one Ariaal household or in regular community life. Apart from the quantitative and qualitative surveys, I kept a field journal, where I was able to record my personal observations and bits of Karare gossip that filtered through the translation process. Any clarification which I needed with respect to my observations was explicitly given by Ariaal female field assistants and/or my field supervisor.

The fieldwork which I carried out in the Karare area was not, in any manner, of an ethnographic sort. Rather it was more in keeping with the anthropological fieldwork method known as Rapid Assessment Procedure (RAP), which is designed to be not only time-saving, but cost-effective. RAP, as explained by Manderson and Aaby (1992a,b), is a truncation of the research process, with a focused proforma applied in fieldwork generally over a 6-8 week period. The aim of RAP is to broaden the information base while simultaneously verifying the findings in a cross-check manner. Ideally it involves a review of secondary data, co-factoring these previous research findings with 'triangulation' - a process which involves semi-structured interviews, focus group discussions and observations. To optimize RAP, Manderson and Abbey (1992a, b) recommend the following procedures: the investigator should live in the field site; there should be competent field assistants available who are familiar with the area; there should be, where possible, an allowance for a gender-match between facilitator and

respondent during the interview process; and if necessary, there should also be an allowance for linguistic interpretation. I contend therefore that it was basically through the application of RAP that I examined the effects of sedentism and the economic specifics of Ariaal milk marketing.

Chapter 7, which follows directly, is focused on *The Ariaal Rendille Milk Marketing Study* and contains details on analyses methodologies, as well as quantitative research results. Chapter 8, on the other hand, is qualitatively oriented and presents analytical findings based on *The Ariaal Rendille Group Questionnaire.* Subsequently, an overall assessment based on RAP (Chapter 9) illustrates that quantitative data derived from one survey complement qualitative results of another, culminating in a deeper understanding of the Ariaal and their survival strategies amidst sedentism.

CHAPTER 7

THE ARIAAL RENDILLE MILK MARKETING STUDY METHODS OF ANALYSIS, RESULTS AND DISCUSSION

7.1 Methods of Analysis

The quantitative data gathered in *The Ariaal Rendille Milk Marketing Study* were sorted and statistically analyzed using the *Statistical Analysis Systems* (SAS) computer program. Within the context of the study's research objectives, as outlined in Section 6.3.1, an initial coding key was formulated to allow for data entry under 65 variables selected to yield measurements suitable for household level analysis. The raw data were ascertained directly from completed questionnaires, coded appropriately for each respondent on individual computer sheets and subsequently entered into SAS by University mainframe services. All sorting of data, the creation of additional variables and statistical analysis took place using the commands specific to SAS. My use of the SAS program remained largely within the boundaries of descriptive statistics: calculations of frequency measures and distributions, measures of central tendency, and measures of dispersion. I ventured into the realm of inferential statistics only when applying tests of significance based on Student's *t*.

The initial amount of statistical information generated by SAS for analysis at the household level was tremendous. Given that the ultimate aim of my thesis was to analyze, discuss and assess the *overall* findings of Ariaal women's dairy marketing and Ariaal perspectives on issues related to sedentism, the scope of the analysis was reduced from a comparison of findings at the household level to one based at the settlement level. Accordingly, statistics for each of the three settlements were calculated for all of the

variables and where appropriate, Student's *t*-tests of significance were applied for intra- and inter-settlement comparisons. Significant data were then transferred into tables designed for the clearest illustration of results.

7.2 Results

As mentioned in Chapter 6, one of the initial aims of *The Ariaal Rendille Milk Marketing Study* was to identify the Ariaal women who marketed milk. Tables 6.1 and 7.1 were designed for this purpose.

Table 6.1

Table 6.1 (see Section 6.3.2) gives statistical means and frequency percentages which detail personal descriptors of the three samples of women. For all settlements, the results indicate that the majority of female milk marketers are married with children, and in more than 60% of cases, married respondents live with their husbands. Over 90% of the women are without formal education, none possess English language skills and few maintain fluency in Swahili.

The mean figures representing the number of women's resident years in a particular settlement suggest that the formal establishment of the two Kijiji settlements is a relatively recent phenomenon, occurring approximately one year ago. When Samburu-speaking females were asked why they moved to Kijiji, most replied that it was to be closer to Marsabit for milk sales and/or to earn more money than they could at the Karare *soko*. All women from this sample had previously resided in Karare. Rendille Kijiji respondents, on the other hand, indicated they moved to be closer to their livestock which

were stationed in the Kijiji area. These women claimed to have relocated from: Hulahula (9), Badasa (1), Logologo (1) and Karare (5). It is important to note that most Rendille Kijiji women arrived from settlements which are in fact, situated in closer proximity to Marsabit market than Kijiji itself.

In a comparison of settlements, the figures in Table 6.1 indicate that there are several significant differences between the women of Rendille Kijiji and those of the other two settlements. Most notably, milk marketing activities appear to be relatively new for Rendille Kijiji women, with the mean number of years in milk sales detailed to be less than one year. A comparison of figures also indicates that polygynous marriages occur less frequently in this settlement than they do in Samburu Kijiji or Karare-Kulapesa. A lower frequency of co-wives among Rendille Kijiji women, along with a higher frequency of women actually living with their husbands, suggests the presence of more monogamous marriage forms and/or first wife status for women in Rendille Kijiji than in the other settlements. The Rendille Kijiji women also have, on average, fewer children than the females in the other sample groups. Although both the Kijiji settlements are geographically no more than 1,000 metres apart, striking differences exist between Samburu and Rendille Ariaal women's linguistic skills, with Rendille Kijiji women being more fluent in both Rendille and Samburu than their Samburu Kijiji counterparts. As well, there is a notable difference between women's mean years in milk sales for each Kijiji settlement.

When comparing the Karare-Kulapesa figures with those of the Kijiji settlements, a greater degree of long-term residency is found in Karare-Kulapesa, with women's mean

resident years detailed at 23.9. In addition, the Karare-Kulapesa sample has a higher ratio of single, divorced or widowed females to married females, and a higher frequency of women with multiple language skills.

Table 7.1

In Table 7.1, the figures indicate the mean pre- and post-drought household wealth per settlement. This information has turned out to be crucial in assessing which Ariaal women go into milk marketing. An explanation regarding the calculations in Table 7.1 is warranted at this point. As per the FAO Production Yearbook formula used by Dahl and Hjort (1976: 224), livestock counts for each household/settlement were standardized into TLUs (Total or Tropical Livestock Units), with 1 TLU = 0.8 cattle or 10 smallstock. The mean pre- and post-drought household wealth per settlement, represented by PRETLU/Person and TLUs/Person respectively, were determined by calculating the mean TLUs per capita for each household within each of the settlements. To scale the mean household wealth for each settlement, I adopted Fratkin and Roth's (1990:394) classification established for Ariaal:

Poor = < 4.5 TLUs/person

Sufficient = 4.5 - 9.0 TLUs/person

Rich = > 9.0 TLUs/person

As stated by Fratkin and Roth (1990:394), "the first category represents minimal per capita nutritional requirements, while the second and third represent, respectively up to and beyond two times the minimum."

In Table 7.1, the standard deviation for pre-drought livestock holdings

TABLE 7.1 INDICATORS OF ARIAAL RENDILLE HOUSEHOLD WEALTH BY SETTLEMENT (JULY - AUGUST 1995)

INDICATORS OF HOUSEHOLD WEALTH	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
PRE-DROUGHT:			
* NUMBER OF HOUSEHOLDS	16	14	6
** PRETLUs			
- $\bar{x}$	34.5	9.6	22.8
- SD	31.8	12.3	28.2
*** PRETLU / PERSON			
- $\bar{x}$	9.6	3.5	5.9
- SD	10.3	4.4	5.5
POST-DROUGHT:			
NUMBER OF HOUSEHOLDS	19	15	14
$\bar{x}$ PEOPLE / HOUSEHOLD	4.3	3.4	5.0
NUMBER OF CATTLE / HOUSEHOLD			
- $\bar{x}$	4.7	9.9	5.7
- SD	2.6	6.8	2.6
NUMBER OF SMALLSTOCK / HOUSEHOLD			
- $\bar{x}$	1.4	2.5	1.2
- SD	2.4	4.8	2.2
TLUs			
- $\bar{x}$	3.9	8.2	4.7
- SD	2.1	5.5	2.0
TLUs / PERSON			
- $\bar{x}$	1.1	3.1	1.8
- SD	0.9	2.3	2.2

* SOME HOUSEHOLDS WERE NOT ASKED PRE-DROUGHT LIVESTOCK COUNTS.
** TLU = TOTAL OR TROPICAL LIVESTOCK UNITS.
1 TLU = 0.8 CATTLE OR 10 SMALLSTOCK (FRATKIN AND ROTH 1990 : 393).
*** THIS CALCULATION IS BASED ON POST-DROUGHT PEOPLE / HOUSEHOLD.

(PRETLUs) in Samburu Kijiji is almost equal to the average herd size, and in Rendille Kijiji and Karare-Kulapesa, it is greater than the average herd size, indicating a wide range of pre-drought herd size for the households in each settlement. This makes it difficult to compare average herd size by settlement. In contrast, the standard deviation for post-drought livestock holdings (TLUs) in each settlement generally indicates there is less of a disparity in herd size holdings amongst settlement households.

According to Fratkin and Roth's classification (1990:394), in pre-drought times, the mean household wealth (PRETLU/Person) for Samburu Kijiji (9.6) is indicated as being 'rich,' Rendille Kijiji (3.5) as 'poor,' and Karare-Kulapesa (5.9) as 'sufficient.' Due to the wide range of pre-drought herd size and given that PRETLU/Person was calculated on post-drought mean number of people/household, it is more accurate to assume, in this instance, that the above classifications for pre-drought household wealth are approximate representations. In contrast however, the contemporaneous post-drought mean household wealth (TLUs/Person) for each settlement is, I believe, more accurately represented and I have full confidence in classifying all as 'poor.'

While all TLUs/Person place all settlements well below the 4.5 poverty rating, within this category the mean household wealth of Rendille Kijiji is indicated as being the highest, Karare-Kulapesa ranks second, whereas Samburu Kijiji is shown to be the 'poorest' of the poor. Further data analysis with two-tailed Student's *t* did reveal significant differences between pre- and post-household wealth for Samburu Kijiji ($t = 3.4$, p 0.05) and Karare-Kulapesa ($t = 2.3$, p 0.05). Similar testing for Rendille Kijiji, however, revealed no significant *t*-value ($t = 0.3$, p 0.05).

The following six tables (7.2, 7.3, 7.4, 7.5, 7.6, and 7.7) detail Ariaal milk production, offtake, allocations and sales income, as well as women's annual income from other sources. These results contribute heavily to a final assessment of: whether Ariaal milk marketing arose to promote economic autonomy for women and/or whether it was a forced response to poverty; whether Ariaal milk marketing is a lucrative enterprise; and, whether this activity and/or income affects women's economic autonomy within the household.

Table 7.2

Table 7.2 gives, for each settlement, information on the dry season average milk offtake per day and women's daily allocations of milk for household use and market sales. Milk allocation for both dry and wet season calf-intake was not measured in this study, as women were non-committal regarding these amounts. Most simply stated that calves fed themselves. One field assistant indicated that generally Ariaal women took milk from three teats of a cow and left one untouched for calf feedings. There are two further notations with respect to Table 7.2. First, factored into measurements is the consideration that the dry season months average seven per year in Marsabit District. Secondly, for calculation purposes all measures have been standardized to a 4-ounce cup, thereby adjusting the 8-ounce cup on which Karare-Kulapesa milk marketers base their milk offtake, allocation and sale measurements.

Several findings are notable in Table 7.2. The first is that information on mean daily milk offtake is consistent with figures given for mean post-drought TLUs and TLUs/person in Table 7.1. That is, one would expect similar settlement rankings in milk

TABLE 7.2 DRY SEASON AVERAGE MILK OFFTAKE PER DAY AND WOMEN'S ALLOCATIONS FOR HOUSEHOLD AND MARKET USE (7 MONTHS / YEAR) BY SETTLEMENT (JULY - AUGUST 1995)

MILK OFFTAKE AND ALLOCATIONS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
NUMBER OF HOUSEHOLDS	19	15	14
NUMBER OF PEOPLE / HOUSEHOLD			
- $\bar{x}$	4.3	3.4	5.0
- SD	1.7	1.6	3.1
- RANGE	1 - 8	1 - 7	1 - 11
DRY SEASON DAILY MILK OFFTAKE (CUPS*)			
- $\bar{x}$	6.0	9.7	7.7
- SD	2.3	6.9	3.2
- RANGE	2 - 10	4 - 30	4 - 16
DRY SEASON DAILY MILK ALLOCATIONS (CUPS*)			
- HOUSEHOLD USE			
- $\bar{x}$	1.5	2.5	2.9
- SD	1.3	2.5	1.0
- RANGE	0 - 5	0 - 10	2 - 4
- MARKET USE			
- $\bar{x}$	4.5	7.2	4.8
- SD	1.7	5.1	2.7
- RANGE	2 - 8	3 - 20	2 - 12
% OF DAILY MILK OFFTAKE ALLOCATED FOR HOUSEHOLD USE IN DRY SEASON	25%	26%	38%

* UNIT OF MEASURE IS STANDARDIZED TO 4 OUNCE CUP SIZE.

offtake as those calculated for TLUs and TLUs/person. Rendille Kijiji does show the highest amount of mean daily milk offtake and Samburu Kijiji - the poorest of the three settlements - demonstrates the lowest.

Table 7.2 indicates that on average, the women of Rendille Kijiji allocate a lesser percentage of their dry season daily milk offtake for household use and a higher percentage for market sales than their poorer Karare-Kulapesa counterparts. A possible explanation for this is the lower mean number of people present in Rendille Kijiji households, or, as Table 7.7 will indicate, the presence of alternate sources of income for the Karare-Kulapesa women. An important indication based on the calculations in Table 7.2 is that during the dry season in Samburu Kijiji households, the total mean daily milk allotment for the average household of 4 members is 1.5 cups (6 ounces). This result strongly suggests that extreme poverty is driving Samburu Kijiji's market activities and that during the dry season, women rely heavily upon milk earnings to provision their families with alternate sources of nutrition.

Table 7.3

Table 7.3 gives, for each settlement, information on the wet season average milk offtake/day and women's daily allocations of milk for household use and market sales. As indicated, in Marsabit District the wet season months average five per year. Similar to Table 7.2, the unit of measure has been standardized to 4-ounce cup size and allocation amounts for calf-intake are not included.

Again, the figures for wet season offtake are consistent with findings in Tables 7.1 and 7.2. Rendille Kijiji, the wealthiest settlement in terms of TLUs/Person,

TABLE 7.3 WET SEASON AVERAGE MILK OFFTAKE PER DAY AND WOMEN'S ALLOCATIONS FOR HOUSEHOLD AND MARKET USE (5 MONTHS / YEAR) BY SETTLEMENT (JULY - AUGUST 1995)

MILK OFFTAKE AND ALLOCATIONS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
NUMBER OF HOUSEHOLDS	19	15	14
NUMBER OF PEOPLE / HOUSEHOLD			
- $\bar{x}$	4.3	3.4	5.0
- SD	1.7	1.6	3.1
- RANGE	1 - 8	1 - 7	1 - 11
WET SEASON DAILY MILK OFFTAKE (CUPS*)	(N) 18	(N) 13	(N) 12
- $\bar{x}$	15.0	20.3	16.0
- SD	6.0	13.7	10.4
- RANGE	5 - 20	6 - 60	6 - 40
WET SEASON DAILY MILK ALLOCATIONS (CUPS*)			
- HOUSEHOLD USE	(N) 14	(N) 12	(N) 10
- $\bar{x}$	5.5	6.3	6.0
- SD	3.1	7.0	3.4
- RANGE	1 - 10	0 - 20	2 - 10
- MARKET USE	(N) 16	(N) 12	(N) 12
- $\bar{x}$	11.0	14.0	11.3
- SD	5.0	11.7	10.1
- RANGE	4 - 17	0 - 40	4 - 40
% OF DAILY MILK OFFTAKE ALLOCATED FOR HOUSEHOLD USE IN WET SEASON	36%	31%	37%

* UNIT OF MEASURE IS STANDARDIZED TO 4 OUNCE CUP SIZE.

demonstrates the highest average daily milk offtake, with Karare-Kulapesa ranking second and Samburu Kijiji showing the lowest average offtake amount. In all three settlements, the wet season milk offtake is more than twice that of the dry season (see Table 7.2). During the wet season, households in these settlements receive on average five or more cups of milk per day and sale allocation amounts are roughly twice that of the dry season. When compared to figures presented in Table 7.2, an increased percentage of daily milk offtake is allocated for household use in both the Kijiji settlements. Household allocation percentages for both seasons remain roughly equivalent in Karare-Kulapsea, suggesting more continuous and consistent daily milk-intake by household members throughout the year.

Table 7.4

Table 7.4 gives frequency measures for other uses of milk by Ariaal women beyond their allocations for household and market purposes. The results show that in all settlements women frequently give milk away to those in need. As might be expected, the findings further demonstrate that the women of the poorest settlement of Samburu Kijiji give gifts of milk less frequently than their Rendille Kijiji neighbours. The milk marketers of Karare-Kulapesa show the highest frequency of milk-giving, again perhaps indicating a reduced dependence on milk for food or as an income source (the latter supported by results in Table 7.7).

Particularly noteworthy in Table 7.4 are the results indicating women's use of unsold milk in the wet season. The highest percentage of women who drink the unsold milk at the market belong to Samburu Kijiji, the poorest settlement. In contrast, a very

TABLE 7.4 FREQUENCY MEASURES FOR OTHER USES OF MILK BY ARIAAL RENDILLE WOMEN (JULY - AUGUST 1995)

OTHER USES OF MILK BY ARIAAL WOMEN	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
NUMBER OF WOMEN IN SAMPLE	19	15	14
% OF WOMEN WHO FREQUENTLY GIVE MILK AWAY	68.4%	80.0%	85.7%
* WOMEN'S USE OF UNSOLD WET SEASONAL MILK			
- % WHO DRINK IT AT MARKET	47.4%	7.1%	7.1%
- % WHO BRING IT HOME	21.1%	78.6%	28.6%
- % WHO SHARE / GIVE IT AWAY	31.5%	14.3%	64.3%

* 1 FREQUENCY MISSING FOR KARARE - KULAPESA

TABLE 7.5 AVERAGE SEASONAL SALE PRICE PER 4 OUNCE CUP OF MILK BY SETTLEMENT (JULY - AUGUST 1995)

$\bar{x}$ PRICE (K.sh.*) PER 4 OUNCE CUP** OF MILK	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
- SAMPLE SIZE	19	15	14
- DRY SEASON	5.0 K.sh.	5.0 K.sh.	2.5 K.sh.
- WET SEASON	3.1 K.sh.	3.0 K.sh.	1.0 K.sh.

* K.sh. = KENYAN SHILLING (100 K.sh. = $2.00 CANADIAN)
** CUP SIZE IS STANDARDIZED TO 4 OUNCES

high percentage of women from Rendille Kijiji bring the unsold milk home for household use. Again findings for Karare-Kulapesa show this sample to contain the highest percentage of females who give away/share their unsold milk. The information in Table 7.4, when considered with results set out in the previous tables, suggest that approximately half of the Samburu Kijiji women in the sample are hungry, as well as impoverished. Table 7.4 also indicates that during wet season, when milk supply in the area exceeds customer demand, the households of Rendille Kijiji are apt to receive more milk than is otherwise recorded in Table 7.3.

Table 7.5

Table 7.5 outlines each settlement's average seasonal sale price of milk based on 4-ounce cup measurement. This information is preliminary to, and incorporated into, the calculations presented in Tables 7.6 and 7.7.

In all settlements, wet season prices are reduced due to the surplus of milk on the market. In explanation of the seasonal differences between the Samburu and Rendille Kijiji women's milk prices per cup and those of the Karare-Kulapesa women, I was told by the Kijiji women that the higher prices reflect the time and effort it takes for them to walk the distance from Kijiji to Marsabit market. Also factored into the increases are the added commission costs incurred when a Kijiji woman remains home in the settlement and her milk is sold in Marsabit by a co-worker. In contrast to the women of Kijiji, the milk marketers of Karare-Kulapesa generally travel short distances to sell their milk at the Karare *soko* and work-sharing and/or commission-based sales are not the normal practice.

Table 7.6

Table 7.6 demonstrates Ariaal women's average annual income from milk sales by settlement and details the intra- and inter-settlement differences in seasonal earnings. All figures are represented in Kenyan shillings with 100 Kenyan shillings being equivalent to $2.00 Canadian. Two respondents periodically earned additional milk income above that obtained from daily market sales by selling a large amount of milk at one time to a customer. As indicated, these amounts have been calculated into the gross milk earnings set out for Rendille Kijiji and Karare-Kulapesa.

As previously noted in Tables 7.2 and 7.3, all women obtained and allocated larger amounts of milk to sell per day during wet months than in dry periods. Information from Tables 7.4 and 7.5 indicates, however, that there is generally a surplus of milk on the market during wet months and women reduce the sale price per cup at these times. Table 7.6 clearly establishes that marketers from all settlements earn less money per annum for milk sales during wet season months and show milk sales to be more lucrative during dry periods.

For Table 7.6, Student's *t*-tests were carried out comparing mean settlement figures for each income category and these revealed no significant differences in milk earnings between Samburu Kijiji and Rendille Kijiji. The tests did confirm significant income differences between Samburu Kijiji and Karare-Kulapesa for the annual dry season sales ($t = 4.21$, p 0.05), gross milk earnings ($t = 2.44$, p 0.05), and net milk earnings ($t = 2.08$, p 0.05). Likewise significant milk-income differences were shown to exist between Rendille Kijiji and Karare-Kulapesa for the annual dry season sales (t =

TABLE 7.6 ARIAAL WOMEN'S INCOME FROM MILK SALES PER ANNUM (JULY - AUGUST 1995)

INCOME (K.sh.*) AND DEDUCTIONS FROM MILK SALES PER ANNUM	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
DRY SEASON			
- SAMPLE SIZE	19	15	14
- $\bar{x}$	4,234.7	5,910.0	2,277.9
- SD	1,322.5	4,748.1	1,317.4
- RANGE	2.7 - 8,400.0	0 - 20,700.0	0 - 4,500.0
WET SEASON			
- SAMPLE SIZE	19	14	13
- $\bar{x}$	2,114.3	1,728.6	2,008.8
- SD	938.5	1,256.7	2,115.4
- RANGE	6.6 - 3,520.0	0 - 4,400.0	0 - 7,700.0
GROSS MILK EARNINGS			
- SAMPLE SIZE	19	14	13
- $\bar{x}$	6,349.1	7,760.7**	4,438.8***
- SD	1,651.5	5,286.0	2,774.6
- RANGE	3,470.0 - 10,160.0	2,300.0 - 24,000.0	1,200.0 - 9,800.0
****K.sh. GIVEN TO HUSBAND/ KIN**			
- SAMPLE SIZE	18	14	13
- $\bar{x}$	758.1	1,147.5	480.0
- SD	1,438.2	3,209.6	1,027.0
- RANGE	0 - 5,080.0	0 - 12,000.0	0 - 3,320.0
***** NET MILK EARNINGS**			
- SAMPLE SIZE	18	14	13
- $\bar{x}$	5,548.1	6,613.2	3,958.2
- SD	1,548.9	3,166.0	2,688.8
- RANGE	3,470.0 - 9,450.0	1,250.0 - 12,000.0	1,200.0 - 9,800.0

* K.sh. = KENYAN SHILLING (100 K.sh. = $2.00 CANADIAN).
** ADDITIONAL MONTHLY MILK EARNINGS OF 2 WOMEN ARE CALCULATED INTO AMOUNT.
*** ADDITIONAL MONTHLY MILK EARNINGS OF 2 WOMEN ARE CALCULATED INTO AMOUNT.
**** AVERAGE AMOUNT OF K.sh. FROM MILK SALES GIVEN TO HUSBAND / KIN PER ANNUM.
***** TOTAL ANNUAL MILK EARNINGS AFTER DEDUCTIONS OF K.sh. GIVEN TO HUSBAND / KIN.

2.76, p 0.05), gross milk earnings (t = 2.02, p 0.05), and net milk earnings (t = 2.34, p 0.05). On average, in terms of annual milk income, the women of Karare-Kulapesa earn less in dry season than the marketers of the two Kijiji settlements do and they have lower gross and net incomes from milk sales per annum. Their earnings from milk sales, although lower, do appear to be more seasonally equitable and consistent throughout the year - a finding which will be elaborated upon in the discussion.

A final point concerning Table 7.6 refers to the average amount of milk-based earnings which women regularly give to their husbands and/or kin. Although the standard deviations for these figures are well above the mean in each settlement, indicating wide intra-settlement variation, *t*-tests revealed no significant inter-settlement difference in monies given to husbands and/or kin.

Table 7.7

Table 7.7 demonstrates the total average annual income of Ariaal milk marketers by settlement. The table also details the intra- and inter-settlement differences in average annual monies received by women from milk sales, other income-generating activities and from their husbands and kin. All figures are represented in Kenyan shillings, with 100 Kenyan shillings being equivalent to $2.00 Canadian. Other income-generating activities of milk marketers include the sale of eggs, garden produce, tobacco, *miraa* (*catha edulis,* a plant which contains a stimulant) brew, wire for beaded necklaces, red ochre and maize meal.

Table 7.7 reveals several important findings. First, the Karare-Kulapesa sample is heavily involved in income-generating activities other than milk marketing, whereas in

TABLE 7.7 AVERAGE ANNUAL INCOME (K.sh.*) PER ARIAAL WOMAN BY SETTLEMENT (JULY - AUGUST 1995)

INCOME CATEGORIES	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
NET MILK EARNINGS (K.sh.)			
- SAMPLE SIZE	18	14	13
- $\bar{x}$	5,548.1	6,613.2	3,958.2
- SD	1,548.9	3,166.0	2,688.8
- RANGE	3,470.0 - 9,450.0	2,250.0 - 12,000.0	1,200 - 9,800.0
** **EARNINGS FROM OTHER ACTIVITIES**			
- SAMPLE SIZE	19	14	14
- $\bar{x}$	82.1	0.0	1,957.1
- SD	357.9	0.0	2,828.4
- RANGE	0 - 2,000.0	0.0	0 -10,000.0
K.sh. RECEIVED FROM HUSBAND PER YEAR			
- SAMPLE SIZE	19	15	11
- $\bar{x}$	277.9	340.0	186.4
- SD	481.1	651.2	445.0
- RANGE	0 - 2,000.0	0 - 2,400.0	0 - 1,500.0
K.sh. RECEIVED FROM KIN PER YEAR			
- SAMPLE SIZE	19	15	14
- $\bar{x}$	373.2	600.0	846.4
- SD	394.9	2,051.8	1,623.0
- RANGE	0 - 1,666.0	0 - 8,000.0	0 - 6,000.0
TOTAL ANNUAL INCOME			
- SAMPLE SIZE	18	14	10
- $\bar{x}$	6,295.9	7,534.6	7,049.7
- SD	1,811.4	3,714.8	3,882.4
- RANGE	3.670.0 -11,450.0	2,250.0 - 12,800.0	2,273.8 - 13,4320
MILK EARNINGS AS % OF TOTAL ANNUAL INCOME	88%	88%	56%

* K.sh. = KENYAN SHILLING (100 K.sh. = $2.00 CANADIAN)

** OTHER ACTIVITIES INCLUDE THE SALE OF: EGGS, GARDEN PRODUCE, TOBACCO, *MIRAA*, BREW, WIRE FOR BEADED NECKLACES, RED OCHRE , AND MAIZE MEAL.

the two Kijiji samples these are almost non-existent. Secondly, women from all settlements receive, on average, very little financial support from their husbands throughout the year. Thirdly, the women from both Kijiji settlements rely heavily on milk sales for their major source of revenue, as milk marketing is shown to generate, on average, 88% of Kijiji women's total annual income. Finally, although *t*-tests revealed no significant differences between settlements for women's average total annual income, settlement ranking of annual income as detailed is consistent with settlement rankings for TLUs/Person set out in Table 7.1. That is, although all settlements are classified as 'poor' using Fratkin and Roth's (1990:394) criteria, within this impoverished category Rendille Kijiji demonstrates the highest average TLUs/Person and the highest average annual income for female milk-marketers; Karare-Kulapesa ranks second on both counts; and Samburu Kijiji, rated the poorest of the poor, demonstrates the lowest TLUs/Person and the lowest total average annual income for women. The last, calculated at 6,295.90 Kenyan shillings per annum, is equivalent to $125.92 Canadian.

The Ariaal Rendille Milk Marketing Study was also directed at determining: how Ariaal women allocated their earnings from milk sales; which food items they purchased regularly from these earnings; and if there were regular contributors to household food supply other than the women themselves. In Tables 7.8, 7.9, 7.10 and 7.11, the results of these inquiries are presented as frequency responses for each settlement sample.

Table 7.8

Table 7.8 presents, by settlement, a rank ordering of household expenditure categories to which women allocated milk sale earnings. These categories were not

identified by the women themselves but were already established by the questionnaire. Women were asked to indicate which categories, if any, they regularly contributed their earnings. The results are based on frequency of affirmative responses.

In a comparison of settlements, Table 7.8 indicates that all Ariaal women regularly allocate milk earnings towards the purchase of household food. The findings also reveal that, when compared to allocations of Rendille Kijiji and Karare-Kulapesa women, a much higher percentage of the Samburu Kijiji women contribute milk earnings towards household medical expenses, livestock expenses, and the purchase of clothing for children, husbands and themselves. In fact, a larger percentage of Samburu Kijiji women allocate earnings in each expenditure category, with the exception of 'food' and 'other.' Frequency measures of expenditures by Karare-Kulapesa women demonstrate an opposite trend, with a lower percentage of milk marketers contributing to each expenditure category, except food and, when compared to Rendille Kijiji, savings, medical and house expenses. Table 7.8 also demonstrates that in each sample, a few women manage to regularly allocate some milk earnings to savings, with a higher percentage shown for Samburu Kijiji.

Based on the rank order of categories for each sample in Table 7.8, cash allocation priorities of Ariaal milk marketers are high for the categories of food, medical and livestock expenses, women's own clothing and children's apparel. Apart from this commonality, however, the frequency pattern reflects variation between settlements regarding the degree of demands placed on women's cash earnings from milk sales. Whether demands arise through mutual agreement between spouses, lack of financial

TABLE 7.8 ALLOCATION OF WOMEN'S EARNINGS FROM MILK SALES BY ARIAAL SETTLEMENT
RANK ORDER OF ALLOCATIONS
BASED ON FREQUENCY OF AFFIRMATIVE RESPONSE BY WOMEN
(JULY - AUGUST 1995)

RANK ORDER	SAMBURU KIJIJI Sample Size = 19	RENDILLE KIJIJI Sample Size = 15	KARARE - KULAPESA Sample size = 14
1	FOOD 100.0%	FOOD 100.0%	FOOD 100.0%
2	MEDICAL EXPENSES 94.7%	CLOTHING - SELF 73.3%	CLOTHING - SELF 57.1%
3	CLOTHING - SELF 89.5%	OTHER 66.7%	MEDICAL EXPENSES 57.1%
4	CLOTHING - CHILDREN 78.9%	MEDICAL EXPENSES 53.3%	LIVESTOCK EXPENSES 50.0%
5	LIVESTOCK EXPENSES 78.9%	LIVESTOCK EXPENSES 53.3%	CLOTHING - CHILDREN 35.7%
6	CLOTHING - HUSBAND 63.2%	CLOTHING - HUSBAND 46.7%	SCHOOL EXPENSES 28.6%
7	OTHER 42.1%	CLOTHING - CHILDREN 40.0%	CLOTHING - HUSBAND 21.4%
8	SAVINGS 36.8%	SAVINGS 20.0%	SAVINGS 21.4%
9	SCHOOL EXPENSES 26.3%	HOUSE EXPENSES 6.7%	OTHER 21.4%
10	HOUSE EXPENSES 15.8%	SCHOOL EXPENSES 6.7%	HOUSE EXPENSES 7.1%
11	TRANSPORTATION 5.3%	TRANSPORTATION 0.0%	TRANSPORTATION 0.0%

support from husbands, or women's own perceptions of their traditional provisioning responsibilities, these are findings which are discussed in Section 7.3.

Table 7.9

Table 7.9 demonstrates, by settlement, a rank ordering of food items most regularly purchased by Ariaal women from milk sale earnings. The food items were identified by the women themselves and not previously categorized in the questionnaire. Measures were taken based on frequency of women's affirmative identification.

As per Table 7.9, a high percentage of women in all settlements used milk sale earnings to purchase maize meal, tea, sugar and maize. In both Kijiji settlements, a high percentage of milk marketers allocated earnings for the purchase of oil. In a comparison of settlements, none of the Samburu Kijiji women's milk earnings were used to purchase meat, potatoes or vegetables, whereas in Rendille Kijiji and Karare-Kulapesa, a small percentage of the women indicated their earnings were used for such items.

The frequency pattern in Table 7.9 reveals that a higher percentage of women from Samburu Kijiji are spending milk sale earnings on basic household food staples than in the other settlements. The results of Table 7.9 also suggest that more types of food items are purchased by a higher percentage of Rendille Kijiji women and that households of both Karare-Kulapesa and Rendille Kijiji must have other ways and/or means of obtaining food items. Table 7.10 adds some support to the latter suggestion.

Table 7.10

Table 7.10 details, for each settlement, food contributors to the household other than the Ariaal milk marketers themselves. Findings reveal that 52.6% of Samburu Kijiji

TABLE 7.9 WOMEN'S FOOD PURCHASES FROM MILK SALE EARNINGS BY SETTLEMENT
RANK ORDER OF FOOD ITEMS
BASED ON FREQUENCY OF AFFIRMATIVE RESPONSE BY WOMEN
(JULY - AUGUST 1995)

RANK ORDER	SAMBURU KIJIJI Sample Size = 19	RENDILLE KIJIJI Sample Size = 15	KARARE - KULAPESA Sample Size = 14
1	MAIZE MEAL 100.0%	MAIZE MEAL 93.3%	MAIZE MEAL 92.9%
2	TEA 100.0%	TEA 93.3%	TEA 71.4%
3	SUGAR 100.0%	SUGAR 93.3%	SUGAR 71.4%
4	MAIZE 89.5%	OIL 93.3%	MAIZE 71.4%
5	OIL 89.5%	MAIZE 86.7%	BEANS 50.0%
6	SALT 36.8%	SALT 73.3%	OIL 42.9%
7	BEANS 31.6%	BEANS 73.3%	SALT 21.4%
8	RICE 21.1%	RICE 13.3%	RICE 21.4%
9	FLOUR 5.3%	MEAT 13.3%	MEAT 14.3%
10	MEAT 0.0%	FLOUR 6.7%	FLOUR 14.3%
11	POTATOES / VEGETABLES 0.0%	POTATOES / VEGETABLES 6.7%	POTATOES / VEGETABLES 7.1%

TABLE 7.10 HOUSEHOLD FOOD CONTRIBUTORS OTHER THAN ARIAAL WOMEN BASED ON FREQUENCY MEASURE OF SAMPLE RESPONSE (JULY - AUGUST 1995)

OTHER HOUSEHOLD FOOD CONTRIBUTORS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
SAMPLE SIZE	19	15	14
HUSBAND AS FOOD CONTRIBUTOR :			
- % OFTEN	0.0%	6.7%	7.1%
- % INFREQUENT	36.8%	53.3%	28.6%
- % NEVER	52.6%	20.0%	35.7%
- % NON-APPLICABLE	10.5%	20.0%	28.6%
FAMINE RELIEF FOOD AID:			
- % RECEIVED PREVIOUSLY (1994)	73.7%	86.7%	21.4%
- % WORKED FOR FOOD	31.6%	26.7%	21.4%

TABLE 7.11 ARIAAL WOMEN'S EARNINGS FROM MILK SALES AND PURCHASED ITEMS FROM MARSABIT MARKET AS PER ROADSIDE SURVEY (AUGUST 5, 1995)

FEMALE INFORMANT	SURVEY DATE	DAY'S EARNINGS (K.sh.*) FROM MILK SALES	MARKET PURCHASES WITH MILK EARNINGS	CASH REMAINING
1	08/05/95	20 Ksh.	SUGAR MAIZE FLOUR	NONE
2	08/05/95	30 Ksh.	SUGAR OIL MAIZE FLOUR	NONE
3	08/05/95	15 Ksh.	MAIZE FLOUR CHEWING TOBACCO	NONE
4	08/05/95	30 Ksh.	SUGAR MAIZE FLOUR TEA WIRE FOR BEADS	NONE

* K.sh. = KENYAN SHILLING (100 K.sh. = $2.00 CANADIAN)

women indicated that their husbands never contribute food to the household. In 36.8% of cases, where husbands did contribute, it was not on a regular basis. By contrast, a higher percentage of Rendille Kijiji women indicated that their husbands contributed food often or infrequently, with only 20% reporting spouses who never purchased or provided foodstuffs. For Karare-Kulapesa, after widowed, divorced or single women were eliminated from the sample, half of the married women stated that their husbands often or infrequently supplied food. Although not indicated by Karare-Kulapesa women, an alternate means for acquiring food items could have been via the income generated by other earning activities.

Table 7.10 also demonstrates that prior to 1995, a high percentage of households from both Kijiji settlements received Famine Relief Food Aid, whereas food assistance was less common for the Karare-Kulapesa sample.

Table 7.11

Table 7.11 outlines the results taken from a roadside survey of Ariaal Kijiji women regarding their milk earnings and purchases at Marsabit market on August 5, 1995 (see Section 6.3.2). The survey was an attempt to cross-check and/or verify food items which Kijiji women stated they regularly purchased with earnings obtained from milk sales.

While the survey sample in Table 7.11 is admittedly small, maize flour is shown to be a common purchase, with sugar also being purchased by women whose milk earnings were 20 Kenyan shillings or more. These findings also reflect that the higher a woman's milk earnings are, the more items she purchases. On this particular day, milk

sale income appears to have been entirely commoditized as all women demonstrated no remaining cash from their earnings.

Table 7.12

As indicated previously, one of the aims of *The Ariaal Rendille Milk Marketing Study* was to determine whether milk marketing activities and/or income affect Ariaal women's economic autonomy within the household. In this study, economic autonomy is defined on the basis of a woman's decision-making power regarding household finances and her rights to maintain or dispose of the monies she has earned. To assist in determining how much economic autonomy Ariaal women had, additional information was sought as to whether Ariaal household incomes remained largely pooled or unpooled, and whether Ariaal females perceive child food provisioning to be solely the responsibility of the woman.

In Table 7.12, frequencies for indicators of women's economic autonomy or dependence show variation between settlements and the findings also indicate some specific overall trends. These results are discussed below in Section 7.3 and in Chapter 9.

Table 7.12 also details the number of women with savings, indicating the highest frequency to be found in Samburu Kijiji. Seventy-one percent of these women revealed that their husbands were unaware of these financial reserves. Furthermore, over 50% of this sample stated they had no knowledge of spouses' annual income/earnings or expenditures. Similarly, 42.9% of Karare-Kulapesa women remained uninformed of husbands' annual incomes, however a larger percentage (42.9%) of the wives in this

TABLE 7.12 INDICATORS FOR DEGREE OF WOMEN'S ECONOMIC AUTONOMY OR DEPENDENCE BASED ON FREQUENCY MEASURE OF WOMEN'S RESPONSES BY SETTLEMENT (JULY - AUGUST 1995)

INDICATORS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
SAMPLE SIZE	19	15	14
NUMBER OF WOMEN WITH SAVINGS	7	3	3
HUSBAND'S AWARENESS OF SAVINGS:			
- % AWARE	14.3%	0.0%	0.0%
- % NOT AWARE	71.4%	66.7%	33.3%
- % NOT SPECIFIED	14.3%	33.3%	33.3%
- % NON-APPLICABLE	0.0%	0.0%	33.3%
WOMEN'S KNOWLEDGE RE AMOUNT OF HUSBAND'S INCOME / EARNINGS			
- % INFORMED	36.8%	40.0%	28.6%
- % NOT INFORMED	52.6%	40.0%	42.9%
- % NON-APPLICABLE	10.5%	20.0%	28.6%
WOMEN'S KNOWLEDGE RE HUSBAND'S EXPENDITURES			
- % INFORMED	21.1%	33.3%	42.9%
- % NOT INFORMED	68.4%	46.7%	28.6%
- % NON-APPLICABLE	10.5%	20.0%	28.6%
% OF SAMPLE WHO MUST GIVE PORTION OF MILK EARNINGS TO HUSBAND / KIN	36.8%	26.7%	28.6%
CASH CONTRIBUTIONS TO HOUSEHOLD FROM HUSBANDS :			
- % OF WOMEN WHO RECEIVE CASH	68.4%	53.3%	36.4%*
- % OF THOSE RECEIVING CASH WHO ARE GIVEN INSTRUCTIONS FROM HUSBAND ON HOW TO SPEND CONTRIBUTION.	0.0%	39.0%	100.0%*
FREQUENCY RESPONSE REGARDING THE PRACTICE OF POOLED INCOME AND JOINTLY PLANNED EXPENDITURES :			
- YES, DONE	21.1%	33.3%	7.1%
- NO, NOT DONE	63.2%	46.7%	64.3%
- DONE SOMETIMES	5.3%	0.0%	0.0%
- NON-APPLICABLE	10.5%	20.0%	28.6%
FREQUENCY RESPONSE AS TO WHETHER IT IS A TRADITIONAL OBLIGATION FOR ARIAAL WOMEN TO PROVISION THEIR CHILDREN WITH FOOD FROM EITHER THEIR CASH EARNINGS OR *SHAMBA* EFFORTS :			
- YES, IT IS WOMEN'S RESPONSIBILITY	36.8%	93.3%	57.1%
- NO, IT IS MEN'S RESPONSIBILITY	0.0%	0.0%	0.0%
- NO, IT IS THE RESPONSIBILITY OF BOTH	63.2%	6.7%	42.9%

* BASED ON A SAMPLE OF 11 WOMEN.

settlement claimed to be knowledgeable of their spouses' expenditures. Rendille Kijiji females were the most informed regarding husbands' income/earnings.

The sample with the highest frequency of women expected to donate a portion of milk earnings to husbands/kin is represented by Samburu Kijiji, the poorest of all settlements in terms of TLUs/Person. Rendille Kijiji, possessing the highest average TLUs/Person, demonstrates the lowest frequency of women required to relinquish cash from milk sales to spouses or kin.

The highest frequency of women receiving household cash contributions from husbands is shown for Samburu Kijiji women. None of these respondents receive instructions from spouses on how to spend this money, however. In contrast, figures for the Karare-Kulapesa sample show the lowest frequency of women receiving cash from husbands and indicate that all are given specific spending instructions.

More than 50% of all married females in the study claimed there was nonpooling of household income with husbands, as well as no interchange between spouses regarding household expenditures. Further findings in Table 7.12 indicate that the majority of Samburu Kijiji respondents perceive child food provisioning to be the responsibility of both men and women, whereas a strikingly high percentage (93.3%) of the Rendille Kijiji sample consider this to be a traditional obligation of women. The Karare-Kulapesa females appear somewhat divided over the issue, with 57.1% claiming it to be women's responsibility and the remainder stating that it belongs to both men and women. In no instance did women in the study perceived child food provisioning to be the sole responsibility of men.

Table 7.13

Another objective of *The Ariaal Rendille Milk Marketing Study* was to determine the form and degree of Ariaal women's networking. Accordingly, Table 7.13 presents results under two major headings. Those under 'Relationships and Milk Sales' indicate that most milk marketers in the study do not have regular customers. If they do, the client is generally someone the women first met in the marketplace, not a relative or friend. The results also suggest that the majority of customers are required to pay for milk purchases immediately, with no line of credit extended. Almost all women in the study indicated that inter- and intra-settlement competition exist amongst the milk marketers for milk sales, although sample frequency results differ as to whether this competitiveness occurred year-round or primarily in the wet season months. Additional findings show that more than 80% of women from both Kijiji settlements claimed to have work-sharing relationships with other females, whereas in Karare-Kulapesa, 71.4% indicated no such affiliations.

'Relationships and Milk Sharing' reiterates that the majority of women in all settlements share their milk supplies with those in need. As stated previously however, milk-sharing occurs among a higher percentage of Karare-Kulapesa women, with the lowest frequency indicated for females in Samburu Kijiji - the poorest settlement in terms of TLUs/Person.

In order to determine women's individual- and settlement-based requirements, all marketers in *The Ariaal Rendille Milk Marketing Study* were requested to specify their major problems and needs, as well as to estimate the time spent in certain routine

TABLE 7.13 DEGREE OF ARIAAL WOMEN'S NETWORKING BASED ON FREQUENCY COUNT OF RESPONSES RE MILK SALES AND MILK SHARING BY SETTLEMENT (JULY - AUGUST 1995)

INDICATORS FOR WOMEN'S RELATIONSHIP NETWORKS	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
SAMPLE SIZE	19	15	14
RELATIONSHIPS AND MILK SALES:			
NUMBER OF REGULAR CUSTOMERS			
- NONE	94.7%	60.0%	64.3%
- ONE	5.3%	6.7%	21.4%
- TWO	0.0%	26.7%	14.3%
- THREE	0.0%	6.7%	0.0%
RELATIONSHIP OF REGULAR CUSTOMER			
- RELATIVE	0.0%	0.0%	14.3%
- FRIEND	0.0%	6.7%	0.0%
- CLIENT FROM MARKET	5.3%	33.3%	21.4%
- NON-APPLICABLE	94.7%	60.0%	64.3%
TIME OF CUSTOMER PAYMENT FOR MILK			
- IMMEDIATELY	100.0%	93.3%	85.7%
- MONTHLY	0.0%	0.0%	7.1%
- IMMEDIATELY / MONTHLY	0.0%	6.7%	7.1%
INTER- AND INTRA-SETTLEMENT COMPETITION FOR MILK SALES			
- YES / WET SEASON	5.3%	86.7%	21.4%
- YES / DRY SEASON	0.0%	0.0%	7.1%
- YES / BOTH SEASONS	94.7%	0.0%	28.6%
- NO	0.0%	13.3%	21.4%
- NOT SPECIFIED	0.0%	0.0%	21.4%
WORK SHARING RE MILK SALES			
- YES	89.5%	80.0%	28.6%
- NO	10.5%	20.0%	71.4%
RELATIONSHIPS AND MILK SHARING:			
SHARING OF MILK WITH THOSE IN NEED			
- YES	68.4%	80.0%	85.7%
- NO	31.6%	20.0%	14.3%

activities. The findings in Tables 7.14 and 7.15 represent Ariaal women's perceptions of their primary difficulties. Table 7.16 records the estimated hours/week spent in milk marketing and in water/firewood collection.

Table 7.14

Table 7.14 presents, by settlement, a rank ordering of women's major difficulties, which were identified by the women themselves and not selected from pre-determined categories in the questionnaire. The results strongly reflect the situational differences which exist among the three settlements, with the primary concerns of both Samburu and Rendille Kijiji women being focused on water and food-related difficulties posed by their environment. The overt mention of 'lack of food' by Samburu Kijiji women is significant. A high percentage of the two Kijiji samples also specified problems such as lack of 'transportation' and 'time/physical energy' which refer to their geographical distance from Marsabit market. In contrast to the Kijiji samples, Karare-Kulapesa women largely identified issues related to the lack of women's educational opportunities and socio-economic organization as being the most problematic.

Table 7.15

Table 7.15 records Ariaal women's perceptions of alcohol abuse in their community. The most striking difference in the perceptions of women occur between those of the two Kijiji samples. Most Samburu Kijiji females claimed there were no problems in the community related to alcohol abuse, whereas the majority of Rendille Kijiji respondents perceived the opposite, with 86.7% stating there were many problems. Although responses within Karare-Kulapesa are shown to be somewhat divided, results

TABLE 7.14 FREQUENCY COUNT OF WOMEN'S OPINIONS REGARDING MAJOR PROBLEMS AND DIFFICULTIES CONFRONTING ARIAAL WOMEN IN EACH SETTLEMENT (JULY - AUGUST 1995)

RANK ORDER	SAMBURU KIJIJI Sample Size = 19		RENDILLE KIJIJI Sample Size = 15		KARARE - KULAPESA Sample Size = 14	
1	84.2%	WATER-RELATED PROBLEMS	80.0%	LACK OF TIME / PHYSICAL ENERGY	57.1%	LACK OF WOMEN'S GROUP / CO-OPERATIVE
2	47.4%	LACK OF *SHAMBAS* (GARDENS)	73.3%	WATER-RELATED PROBLEMS	35.7%	LACK OF INDEPENDENT INCOME
3	47.4%	LACK OF TRANSPORTATION	60.0%	LACK OF TRANSPORTATION	35.7%	LACK OF TIME / PHYSICAL ENERGY
4	31.6%	LACK OF TIME / PHYSICAL ENERGY	26.7%	LACK OF FEMALE SOLIDARITY	35.7%	WOMEN'S LACK OF EDUCATION
5	10.5%	LACK OF FOOD	26,7%	LACK OF WOMEN'S GROUP / CO-OPERATIVE	28.6%	WATER-RELATED PROBLEMS
6	10.5%	LACK OF INDEPENDENT INCOME	6.7%	LACK OF *SHAMBAS* (GARDENS)	21.4%	LACK OF EDUCATION ON BIRTH CONTROL
7	5.3%	LACK OF MEDICAL HELP	6.7%	LACK OF MEDICAL HELP	7.1%	LACK OF MONEY FOR SCHOOL FEES
8	5.3%	LACK OF WOMEN'S GROUP / CO-OPERATIVE	6.7%	WOMEN'S LACK OF EDUCATION	7.1%	PHYSICAL EXERTION / MISCARRIAGES
9	5.3%	LACK OF SCHOOL FACILITIES	6.7%	HOUSING PROBLEMS	7.1%	LACK OF FEMALE SOLIDARITY
10	5.3%	HOUSING PROBLEMS	6.7%	LACK OF DONKEYS	7.1%	LACK OF DONKEYS

TABLE 7.15 ARIAAL WOMEN'S PERCEPTIONS OF ALCOHOL ABUSE AS A COMMUNITY PROBLEM BASED ON FREQUENCY OF RESPONSE BY SETTLEMENT (JULY - AUGUST 1995)

PERCEPTIONS RE ALCOHOL ABUSE	SAMBURU KIJIJI	RENDILLE KIJIJI	KARARE - KULAPESA
SAMPLE SIZE	19	15	14
WOMEN'S PERCEPTIONS OF ALCOHOL ABUSE AS A COMMUNITY PROBLEM			
- YES - MANY PROBLEMS	0.0%	86.7%	14.3%
- YES - A FEW PROBLEMS	0.0%	0.0%	21.4%
- NO PROBLEMS	78.9%	0.0%	35.7%
- UNCERTAIN	0.0%	13.3%	0.0%
- NOT SPECIFIED	21.1%	0.0%	28.6%

TABLE 7.16 ARIAAL WOMEN'S TIME ALLOCATIONS FOR MILK MARKETING AND COLLECTION OF WATER & FIREWOOD BY SETTLEMENT (JULY - AUGUST 1995)

LABOUR ACTIVITIES	SAMBURU KIJIJI			RENDILLE KIJIJI			KARARE - KULAPESA		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD
MILK MARKETING:									
- DAYS PER WEEK AT MARKET	19	2.5	0.8	15	3.5	1.9	14	6.2	1.4
- HOURS PER WEEK AT MARKET	19	23.3	8.3	15	27.5	17.6	11	24.0	16.2
FIREWOOD/ WATER COLLECTION:									
- HOURS PER WEEK	10	14.0	6.3	12	3.9	3.1	6	13.6	4.0

do indicate a higher measure of women claiming the non-existence of alcohol-related problems within this settlement.

Table 7.16

Table 7.16 presents, by settlement, the total average weekly time which Ariaal women devote to milk sales and to collection of water and firewood. Travel time to and from market locales are included in the figures representing 'hours per week at market.'

Notable findings in Table 7.16 are as follows: on average, Rendille Kijiji women spend more days and hours per week in market activities than Samburu Kijiji women; Karare-Kulapesa women devote more days per week to milk marketing than their counterparts, but spend an equal or lesser number of hours/week occupied in travel time and milk sales. In short, they tend to work more days/week, but appear to average fewer hours/day; and lastly, Rendille Kijiji women devote remarkably less time to water and firewood collection per week than do females in other samples.

7.3 Discussion and Summary

Quantitative findings drawn from three sample groups in *The Ariaal Rendille Milk Marketing Study* reveal that the majority of female Ariaal milk marketers are married and reside with their husbands and children in settlements where household wealth is currently classified as 'poor' (<4.5 TLUs/Person). More than 90% of all respondents lack any formal education, none possess English language skills and few maintain fluency in Swahili. Results further indicate that women from the predominantly Samburu-speaking settlements of Kijiji and Karare-Kulapesa have been active in milk sales for a longer

duration than Rendille-speaking Ariaal of Kijiji, with mean years detailed at approximately eight for the former and less than one for the latter.

These commonalities in Ariaal milk marketers and their activities cease with the above observations, however. A finer analysis does, in fact, emphasize the different circumstances for milk marketers in each settlement and stresses women's unique situations and strategies for survival. I contend therefore that any detailed discussion pertaining to the causal factors of Ariaal milk marketing, its lucrativeness or effects on women's economic autonomy, should be based on individual settlements.

Samburu Kijiji

The women in the Samburu Kijiji sample were all previous residents of Karare and formerly participated in milk sales at the local Karare *soko* and in Marsabit market. Their marketing activities are noted to have commenced roughly eight years ago - a time coinciding with severe drought-induced livestock loss. Within the past year, all of these Samburu-speaking females have moved to Kijiji, reasoning that the relocation brought them closer to Marsabit market, making it more convenient for their daily milk sales. Milk marketing in Marsabit was also detailed as being twice as lucrative per unit of measure than in the Karare *soko* (see Table 7.5). In exchange for the higher earning potential and reduced travel time, Samburu Kijiji women have relinquished Karare's offer of easier access to water, medical assistance and school facilities and left many of their family members and close supportive friends behind. Despite their recent efforts towards financial improvement, Samburu Kijiji women maintain travel distances of 20 km/day, sell very little milk and enjoy household allocations of milk only sufficient enough for

tea.

Based on all results, Samburu Kijiji households are assessed as being the poorest of the poor. Besides having the lowest mean figures for household wealth, total milk offtake and women's annual income, income gained from sources or activities other than milk sales are recorded as being minuscule and milk-based earnings are shown to comprise 88% of women's total annual income (see Table 7.1, 7.2, 7.3, and 7.7). Frequencies presented in Table 7.8 suggest that high demands are placed on women to use their milk earnings for food and other household expenditures. Notably, many wives allocate monies for livestock expenses, as well for husbands' clothing - expenditures which are generally taken to be the responsibility of Ariaal men. Furthermore, Samburu Kijiji husbands never, or infrequently contribute food to the household and prior to 1994 cutbacks in Famine Relief Food Aid, most of these households received food assistance (see Table 7.10).

Additional findings (see Table 7.9) reveal that the least variation in bought-food items occurs in the Samburu Kijiji settlement, suggesting that women's available funds are limited to the purchase of basic staples of grain and tea. Other results show that a lower percentage of Samburu Kijiji women give milk away and that a higher percentage consume unsold milk themselves rather than share this or bring it home from the marketplace (see Table 7.4).

Personal observations of the Samburu Kijiji settlement indicate that the inhabitants experienced crowded and unsanitary living-conditions, were plagued by numerous flies and suffered extensively from eye and/or ear infections. Many of the

respondents and their families appeared unwell and often requested medications or transportation to the medical dispensary at the Karare mission. That a high frequency (94.7%) of Samburu Kijiji women allocated milk earnings to medical expenses came as no surprise (see Table 7.8).

For Samburu Kijiji women then, milk marketing activities commenced after severe loss of livestock due to the combined effects of drought and sedentary-living conditions. Unlike the Karare-Kulapesa marketers who remained in the Karare area, Samburu Kijiji women possess few alternate sources or means for generating income other than milk sales. Although the move from Karare to Kijiji has enabled women to intensify their marketing activities, their milk sales do not appear to be particularly lucrative. Nevertheless, the income generated provides the basic means for Samburu Kijiji families' survival.

This sample shows rather ambiguous results regarding the existence or degree of women's economic autonomy (see Table 7.12). Women's milk earnings are the main source of income for many households as husbands contribute little money for expenditures. When husbands did contribute cash, however, they gave no instructions on how to spend it. Over half the women had no knowledge of their husbands' income and expenditures. In 63.2% of households, incomes were not pooled, nor was there joint planning of expenditures by spouses. Roughly one-third of the women were required to give approximately 12% of their annual milk earnings to their husbands or other kin. A higher percentage of women had savings in this sample, however they maintained a great deal of secrecy surrounding these funds. Despite indications that women's income is the

mainstay for household food supply, more than 60% of Samburu Kijiji women perceive that child food provisioning responsibilities should be that of both spouses. This latter information was relayed in a somewhat bitter fashion by many of the respondents.

Given the above information, I argue that while Samburu Kijiji women are carrying a considerable economic load, this situation has been inherited by them due to household financial stress. They may have earning power and thus some decision-making power as far as expenditures go, but for the most part they are kept uninformed as to spouses earnings and expenses and receive little financial support from men. The situation for Samburu Kijiji women does not represent economic autonomy, but rather depicts economic necessity.

The strongest evidence for women's networking in the entire study appears in the work-sharing arrangements between Samburu Kijiji females. Almost 90% participated in milk marketing activities on a work-sharing/commissioned basis, rotating market days and sales activities with family members and chosen friends (see Table 7.13). Each woman, on average attended the Marsabit market 2.5 days/week for a total of 23.3 hours/week (see Table 7.16). Marketers claimed that the time spent travelling and marketing in the company of other women was not only socially enjoyable but valuable, as gossip kept them informed about all local matters and regional events.

Women's difficulties in Kijiji mainly centred upon water-related problems (see Table 7.14). Women commented upon the long distances they had to trek to the closest watering hole and described the necessity of travelling in groups for protection against lion, elephant or enemy attacks. Time allocation recall studies detailed water/firewood

collection time/week to be the highest for this sample (see Table 7.16). In a more positive light, the women also cited water scarcity as a major factor in the low incidence of brewing activities and lack of alcohol-related problems in the Samburu Kijiji community.

Rendille Kijiji

The Rendille Kijiji sample is somewhat of an anomaly as far as certain findings are concerned. To begin with, measures indicate a very recent entry into female milk marketing, with women's mean years in milk sales being less than one year. Results further reveal that commencement of milk sales roughly coincided with the time of women's initial establishment in Kijiji. Secondly, and more interestingly, findings from interviews revealed that two-thirds of the Rendille Kijiji women moved to Kijiji from settlements situated closer to Marsabit market than Kijiji itself. Respondents simply stated that moves were made to be nearer to livestock stationed in the Kijiji area. This evidence strongly suggests that Rendille Kijiji females relocated to Kijiji to gain access to milking livestock in order to facilitate their entry into marketing activities.

A firm summation that the recent venture into milk sales arose as the result of poverty is somewhat hindered by the following findings. Although the current post-drought figures for mean household wealth (3.1 TLUs/Person) fit within the classification limits of 'poor' (< 4.5 TLUs/Person), so do pre-drought calculations for mean household wealth (3.5 TLUs/Person). According to Student's *t*, no significant difference exists between the two measures (t = 0.3, p 0.05). In other words, the Rendille Kijiji sample has always been 'poor', so this rather late instigation of milk sales is somewhat puzzling.

The only measure in the study which could possibly shed light on the timing of women's migration to Kijiji and entry into milk sales occurs within Table 7.10. Here details reveal that up to 1994, 86.7% of these Rendille Kijiji households were recipients of Famine Relief Food Aid. A major catalyst which could have propelled women towards their livestock and into market activities may have been the 1994 cutbacks in Famine Relief and subsequent cessation of food assistance to these households.

Rendille Kijiji households began milk sales when they were the 'richest of the poor,' in terms of the mean TLUs/ Person settlement ranking. Of all the respondents, these women are shown to obtain the most milk offtake/day throughout the year, the highest dry season and highest net milk income per annum and the highest total annual income (see Tables 7.1, 7.2, 7.3, 7.6, and 7.7). Income gained from other activities is virtually non-existent, although Rendille Kijiji females do obtain the most financial support from husbands and receive a moderate amount of income from other kin (see Table 7.7).

All Rendille Kijiji women use some of their milk sale earnings to purchase food (see Table 7.8). Over 75% used milk sale income to buy clothing for themselves and roughly 66% indicated they purchased miscellaneous items (listed as Other), such as toiletries and beads. Fifty-three percent or less of Rendille Kijiji women indicated they made some financial contributions to the remaining categories listed in Table 7.8. When considered within the context of all the above-mentioned results, this latter finding suggests that household demands on women's milk-based income are not as high in Rendille Kijiji as they are for the other settlements. It also suggests that half or more of

Rendille Kijiji husbands may be partially or fully meeting the costs of these categorized expenses. Additional factors to consider when discussing the degree of household demands placed on women's milk income are the average number of children/household and the incidence of polygynous marriages within a settlement. Of all the samples, Rendille Kijiji demonstrates the lowest mean number of children/household and the lowest frequency of polygynous marriages (see Table 6.1).

Compared to the other settlements, more types of food items are shown to be purchased by a higher percentage of women in Rendille Kijiji (see Table 7.9), suggesting that some households have a more varied diet and perhaps more available funds with which to achieve this. On average, Rendille Kijiji households receive a higher milk allotment/person/day throughout the year and in wet season, women periodically add to household milk supplies by bringing home unsold milk from the marketplace (see Tables 7.2, 7.3 and 7.4). In addition, Rendille Kijiji women receive the most food support from husbands as over 50% of spouses are detailed to 'often or infrequently' contribute to household food supply (see Table 7.10).

In summary, the Rendille Kijiji have always been 'poor' in both pre- and post-drought times. A possible explanation for women's sudden and recent migration to Kijiji-located livestock and subsequent entry into milk sales may be the 1994 cessation of Famine Relief food assistance formerly received by a high percentage of these households. While Ariaal milk marketing is not lucrative in the broadest sense of the word, milk sales are shown to generate the highest income for Rendille women compared to the other two groups. This is attributed to higher mean household livestock holdings

which in turn has permitted higher milk offtake and higher market allocations per annum. Measures indicate that while women's milk earnings do contribute considerable financial support to household expenditures, the demands placed upon this income may not be as severe as that indicated for Samburu Kijiji women. Rendille Kijiji milk income appears to assist, rather than totally facilitate, household survival.

The existence or degree of women's economic autonomy (see Table 7.12) seems less ambiguous for Rendille Kijiji women than for women in the Samburu Kijiji sample. Several findings do run contrary to supportive indications for women's economic autonomy, however, one being that very few women maintained savings and of the three who did, two kept this a secret from their husbands. Secondly, an overwhelming majority (93.3%) of females perceived child food provisioning to be traditionally and solely the responsibility of women.

On the other hand, some degree of economic autonomy exists. Although a number of women were not informed of their husband's earnings/income and expenditures, overall results indicated that Rendille Kijiji women were the most informed as to the amount of income their husbands earned or received per annum. Furthermore, a lower percentage of Rendille Kijiji women were required to give a portion of milk earnings to their husbands and/or kin, and a higher percentage (33.3%) lived in households where incomes were pooled and expenditures were jointly planned. Of the eight women who reported receiving cash from husbands, only three were given instructions by spouses as to how to spend these funds. Upon weighing these findings and collaborating results with each sample's final analyses concerning women's milk

marketing income and household demands, it would appear that Rendille Kijiji women do have some degree of economic autonomy. At the very least, it is more than what is indicated for other women in the study.

As with Samburu Kijiji there is strong evidence for women's networking based on the high frequency of women who maintain work-sharing arrangements with other Rendille Kijiji females (see Table 7.13). Findings indicate however, that compared to Samburu Kijiji marketers, these arrangements are made by a slightly lower percentage of Rendille-speaking women, and individual Rendille Kijiji marketers tend to spend more hours/week (27.5) in milk sales, for an average of approximately 3.5 days/week (see Table 7.16). Several Rendille Kijiji females have regular milk customers at Marsabit market which indicates some out-of-settlement networking (see Table 7.13).

According to 70% or more of Rendille Kijiji respondents, the two most serious difficulties confronting women were: lack of time and physical energy for necessary household duties; and water-related problems. Rendille Kijiji women spend more hours in milk sales and far less time than other respondents in water/firewood collection per week (see Table 7.16). Whether the latter can be attributed to 'lack of time/physical energy' is sheer speculation. Other notable findings indicate that 86.7% of women perceived alcohol abuse to be a problem in the settlement (Table 7.15). Since water-scarcity would make it just as difficult for women to brew as in Samburu Kijiji, questions arise as to where and how alcohol is obtained and by whom.

Karare-Kulapesa

Karare-Kulapesa respondents are long-term residents in the settlement (mean

years - 23.9), have an eight-year involvement in milk sales (see Table 6.1) and currently dwell in households with a mean wealth classification of 'poor' (< 4.5 TLUs/Person) (see Table 6.1 and 7.1). In terms of sample rankings for household wealth, they represent the 'middle-class' of the poor (see Table 7.1). Similar to the Samburu Kijiji analysis, measures for Karare-Kulapesa women indicate that sample households suffered considerable livestock loss due to severe drought conditions (see Table 7.1). This suggests that the 1987 commencement of women's milk sales, which occurred shortly after livestock depletion, arose as a direct result of poverty.

The Karare-Kulapesa sample is the most diversified in terms of women's marital status, linguistic abilities, earning activities and income (see Tables 6.1 and 7.7). While Karare's tiny *soko* does not facilitate the most lucrative milk sales, it does provide an arena for many other entrepreneurial activities (see Tables 7.5, 7.6 and 7.7). Measures confirm that the annual income generated by milk sales in this agro-pastoral settlement is, in fact, low and differs markedly from higher income generated by milk sales in the other groups. Yet these results relate not so much to reduced amounts of milk offtake, as they do to the priorities of Karare-Kulapesa women regarding milk allocations and place of sale.

In a sample comparison, Karare-Kulapesa has on average the most members per household and accordingly, throughout both dry and wet seasons, marketers are shown to allocate a higher portion of daily milk offtake towards household use than their Kijiji counterparts (see Tables 7.1, 7.2 and 7.3). This higher percentage recorded for Karare-Kulapesa household milk allocations is particularly notable for dry seasons - a time

which has the most milk income potential through higher priced sales (see Table 7.2). In addition to forfeiting dry season sales, Karare-Kulapesa women also elect to sell their milk locally for less money per unit of measure than could be obtained at Marsabit market (see Table 7.5). By reducing dry season sales, and optioning out of long treks to Marsabit and/or household moves to Kijiji, women have in effect, lowered their milk-based earning opportunities. Alternative marketing activities are seen to add to women's annual earnings, however, and range from the sale of eggs, garden produce, tobacco, *miraa* or brew, to the vending of special wire for beads, red ochre or maize meal. Nevertheless, as beneficial as these miscellaneous earnings might be, milk marketing is still the major source of income for Karare-Kulapesa females and brings them roughly twice the income generated by their miscellaneous sales (see Table 7.7).

The household demands placed upon women's milk income appear to be low. Only 28.6% of Karare-Kulapesa females are required to give milk earnings to husbands and/or kin, in the amount of 10% per annum - the lowest measure recorded for all samples (see Tables 7.6 and 7.12). A further comparison shows that a lower percentage of Karare-Kulapesa women contribute milk earnings to all the expenditure categories listed in Table 7.8, with the exception of food, and when compared to Rendille Kijiji - savings, medical and housing expenses. This particular observation raises queries, however, about the causal factors involved and alternate sources of revenue available for these expenditures. The purchase of fabric and/or items related to family clothing could generally be considered a necessity - not an option, and if these costs are not covered by the women themselves, they must be obtained by some other source or means. Lack of

information about women's allocation of miscellaneous earnings to household expenditures make it difficult to ascertain how much husbands actually contribute. Nevertheless, Table 7.8 does suggest that men's contributions to household expenses are low.

The figures in Table 7.9 lend further support to the above findings, as a lower percentage of women in this sample are shown to use milk earnings for basic supplies such as maize meal, tea, sugar, oil and salt. This suggests that milk income is used less for the purchase of food in this sample and indeed, over half of married Karare-Kulapesa women indicate that spouses often or infrequently supplied food items for the household (see Table 7.10).

Although household demands placed on milk income are few, little is known regarding the requirements placed on women's other earnings. Consequently, findings defining the status of women's economic autonomy give way to speculation. On the whole, there is more evidence which indicates a lack of women's economic autonomy for these respondents (see Table 7.12). Of the three settlements, Karare-Kulapesa demonstrates the lowest frequency of women who receive cash from husbands and in all cases, they received specific spending instructions from spouses. Furthermore, over 50% of the respondents perceived child food provisioning to be solely the responsibility of females, making it likely that women would place self-imposed demands on their earnings to meet these obligations. Additionally, more than 60% of the women reported there was no pooling of household income, nor joint planning between spouses for expenditures. Of all samples, Karare-Kulapesa women were the most informed about

husbands' expenditures, but the least knowledgeable about their spouses' income/ earnings. It is possible that females were the most informed of spouses' expenses because they were required to meet these costs. Finally, the strongest evidence indicating that women have little or no economic autonomy comes from findings detailed in Table 7.14 where 'lack of independent income' is ranked high in the list of major difficulties women face in this settlement.

The only evidence for women's intra-settlement networking comes from the low frequencies of women who have one or two regular customers for milk sales, as well as from high frequencies of women who often give milk away. As noted previously, work-sharing arrangements are few in Karare-Kulapesa and women's networking appears to be low in this regard (see Table 7.13). A further finding which supports the latter appears in Table 7.14. Here the major difficulty cited by women in this community was the lack of a women's group or co-operative. Respondents concomitantly stated that any previous attempts to strengthen the productivity of female market activities and sales through the formation of such a group had been unsuccessful, as women tended to be divided among themselves within the community.

Although Karare-Kulapesa females have little economic autonomy, the problems which they cited as being most pressing suggest that they have a strong desire for such autonomy (see Table 7.14). Recognition that their difficulties stem from lack of co-operative organization, female solidarity, and scholastic and birth-control education, leaves little doubt that Karare-Kulapesa women are well-aware of the deficiencies which perpetuate their economic dependence. Of all respondents, these women appeared to be

the most receptive to suggestions and/or projects which could assist their transformation from dependency to self-sufficiency and autonomy in economic matters.

In conclusion, I wish to emphasize that the quantitative results of *The Ariaal Rendille Milk Marketing Study* constitute but one part of the RAP research findings contained in this thesis. The following chapter presents a further RAP component, which is comprised of a series of qualitative analyses of question/answer material taken from *The Ariaal Rendille Group Questionnaire*.

CHAPTER 8

THE ARIAAL RENDILLE GROUP QUESTIONNAIRE: METHODS OF ANALYSIS, RESULTS AND DISCUSSION

8.1 Methods of Analysis

The eight audio-tapes recorded during *The Ariaal Rendille Group Questionnaire* sessions were transcribed, producing 67 documented pages of raw qualitative data pertaining to Ariaal perspectives on the effects of sedentism (see Table 6.2 for group descriptions). Based upon Krueger's (1988:96) advice that "the intent of focus groups is not to infer but to understand, and... to provide insights about how people perceive a situation," content analysis was undertaken at the community-level to gain a broad understanding of Ariaal Rendille perspectives. To create an organizing system for data analysis, I drew upon methods outlined in Ely *et al.* (1991) and Krueger (1988), and from suggestions offered by my graduate committee members.

The transcribed documents for each of the eight focus group sessions were initially colour-coded by group. A second colour-coding was added to identify Samburu- and Rendille-speaking Ariaal perspectives. Each of the eleven questions posed in the sessions was defined as a unit, which enabled contents from transcriptions to be transferred from session groupings into groupings based on question units (see Appendix B). All of the eight groups' responses to a particular question were combined together and the contents were analyzed for recurrent themes and/or categories. When themes or categories were identified, these were typed as headings or subheadings on 5 x 7 blank index cards. Each transcribed response within a question unit was cut from the recorded data and pasted under the appropriate heading on a card. Because of the colour-coding, I

was able to immediately identify the group and language of any response on a card and was able to determine which themes/categories were referred to most often by the study's participants.

To devise a written format for results, I combined/adapted 'descriptive' and 'interpretive' formats for focus group reports, as presented in Krueger's *Focus Groups* (1988:129-132). The following section contains an eleven-part series of descriptive/ interpretive reports for the responses given to questions in *The Ariaal Rendille Group Questionnaire* (Appendix B). Unless specified that certain information comes from men or female elders, the reports are based strictly on the opinions given by adult Ariaal females. In some instances, the quotations which I present are the interpreter's summarizations of discussions which took place between two or more Ariaal. Thus, I frequently reference several focus group members at the end of a single quotation. Unless specified otherwise, Samburu- and Rendille-speaking Ariaal responses remain undifferentiated. In the first two question/response reports which cover perspectives on the advantages and disadvantages of sedentism, most of the names of categories are the English category titles which I created to envelop the common themes which arose during Ariaal group discussions. When category titles were actually mentioned by the Ariaal, I indicate this within the report.

8.2 Results

Question 1: In your opinion, what are the advantages of sedentism?

One theme which continually surfaced in conversations of seven focus groups

regarding the advantages of sedentism can be categorized as **'The Acquisition of New Knowledge and/or Skills.'** For the most part, Ariaal perceived new activities such as farming, marketing, house construction and the incorporation of different foods into their diets as beneficial and advantageous. Expression of these sentiments included:

> The advantages of living in one place and not moving place to place is that I can do some improvements. I can plough my *shamba*, I can look after my animals well, I can also do some, you know, planting vegetables, so that I can also earn my living easily. (female elder, July 25/95)
>
> Before we didn't know how to plough *shambas*. But because we have been settled in one place, we know now and even [know] to grow different types of seeds. We didn't know before. We used to work in the deserts. We have never known that people can dig their land and get food out of that. (female elder, August 3/95)
>
> Before we didn't know how to use bulls to plough, but now we know that animals can be used to plough the land and we can train our bulls, you know, that they can respond to the directions you tell them. (male, August 2/95)
>
> We can sell milk and *miraa*, tobacco, snuff, necklaces, maize meal and red ochre. (female, August 4/95)
>
> Before we didn't know that milk can be marketed. We can sell our milk and get other things that we want. (female, August 2/95)
>
> Now we are even getting accustomed to foods that we didn't even know before, like chickens. (female, July 29/95)
>
> We are getting to know the foods that we didn't know before, like maize, beans, wheat. (female, August 2/95)

The second most frequently mentioned advantage of sedentism was **'Community Co-operation.'** This was particularly emphasized in Samburu Ariaal focus groups, where participants expressed mutual need for one another. They remarked that because

of the current close proximity of Ariaal households, they were able to assist each other when necessary with animal care, child care, ploughing *shambas*, harvesting produce, building houses, collecting firewood and fetching water. A female elder mentioned that if one family did not have *murran* to take the cattle out to graze, help could always be solicited from another household (August 1/95). A male Ariaal perspective linked co-operative animal care with educational-related benefits:

> Co-operation regarding cattle care frees other children to go to school. (male, August 1/95)

Two other advantages to sedentism commonly referred to by three of the Rendille-speaking Ariaal groups can be categorized as **'Convenience'** and **'Access to Water.'** Although these categories overlap in content, there are some subtle differences. With respect to the **'Convenience'** of sedentism, Rendille Ariaal referred to this in terms of not having to walk long distances, nor having to find some form of transport for the movement of houses from camp to camp. The access to lorry transportation for marketing purposes was likewise considered a convenience and this sentiment was succinctly expressed as follows:

> Now that we are settled in one place, we can even get means, like vehicles. Before we used to go with the camels, far distances to reaching the market. We have to sleep in-between before reaching Marsabit, a place like Marsabit! (female, July 29/95)

The advantage of **'Access to Water'** was mentioned in the context of convenience (i.e. less travel), but the advancement of Ariaal safety and health were also linked to improved access to water.

> Before we used to walk far distances looking for water for

> our animals and even sleeping just in the jungle before we reach the source of water. But now we can get water just from here by tap and even the animals. (female elder, August 3/95)

> We are even healthy now, because we can get even now water to wash ourselves because before we don't...because we wouldn't have [water] to drink and [had to] go [to a] far place to get it. Now we get it just here and we can wash and our health is better now. (females, July 29/95)

Three focus groups considered **'Access to Facilities and Services'** (my English category title) as being an advantage to dwelling in one place and participants mentioned the benefits which Ariaal children derived from schools, hospitals and medical dispensaries. The following sentiments were also expressed by Samburu-speaking Ariaal concerning the helpful role of the church,

> Before there was no Christianity. We were praying and moving from place to place, but the church has been good...The church has been a big benefit to us. Before we were not aware of churches. (females, August 1/95)

In summary, focus group participants were most willing to offer their perspectives on the advantages of Ariaal sedentism. The prevalent feeling was that new knowledge and/or skills acquired during sedentism had contributed considerably to Ariaal strategies for self-sufficiency and survival. Sedentism was also seen as a mode of existence which facilitated and promoted co-operation among, and assistance between, community members - providing strength in unity, so to speak. These latter sentiments were prevalent in Samburu-speaking Ariaal groups. Rendille-speaking Ariaal groups on the other hand, felt that sedentism had made life easier and more convenient in terms of shorter travel distances and better access to transportation and water. Improved safety

and health were also considered to be beneficial aspects of the current water availability. Another advantageous aspect to sedentism according to Ariaal, was the presence of educational, medical and religious facilities nearby.

A final point to be added here is that only one respondent considered ownership of land to be an advantage of sedentism and this perspective came from an Ariaal male. Pastoral women generally have usufruct rights rather than ownership rights, and given that the study's participants were largely female, it is not surprising that land-ownership was not referred to by women.

Question 2: What are the disadvantages of sedentism?

Before presenting Ariaal perspectives on the disadvantages of sedentism, there is one aspect surrounding Ariaal sedentarization which deserves initial consideration in this report. This pertains to the difficult period of adjustment which Ariaal went through at the commencement of the sedentary process. Although the majority of groups did not discuss this, female elders of one Rendille-speaking group from the Scheme reminisced extensively about the difficult times they experienced when they first arrived in the Karare/Scheme area in 1973 (July 25/95). These elders stated that their households had lost all their livestock as a result of drought and they were forced by the government to settle on designated plots of land. They were subsequently given practical instruction in farming practices and a few tools to construct their *shambas* with. In the words of these elders,

> When the government settled us here, it was like a force...so we do not accept. It was like taking people and imprisoning them. We didn't like. First of all, we have never had the farming. It was something different. The

> first time when the children were taken to school, we used to cry. [We believed] that child is lost now. (female elders, July 25/95)

While these perspectives are not representative of investigative results as a whole, they clearly reveal some of the psychological impacts which sedentism initially had on Ariaal elders. Younger study participants many not have experienced or remembered such incidents.

As to the actual disadvantages of sedentism, the most common theme which ran through the related conversations of six focus groups can be categorized as **'Changes in Ariaal Social Structure/Family Relationships.'** The majority of Ariaal felt that sedentism had separated them from close relatives who were settled elsewhere. With cessation of regular household movements, visits with family members had become infrequent, giving rise to increased feelings of isolation and segregation from parents and other kin. Respondents frequently referred to loss of kinship and/or the breakdown of lineage relationships in statements such as the following:

> Because of this settlement we are losing what you call kinship...of our relatives. Yes, we are losing that. But before when we are moving around place to place, it happens at one time we are moving together and being in one *manyatta*, but now we cannot move so it is very difficult to see our relatives. (females, August 2/95)

> A disadvantage of being settled in one place is that we have lost that lineage the Rendille used to have of brotherhood because your neighbours are not necessarily your relatives. (female and male, August 3/95)

The dispersion of lineage members was also considered problematic by Rendille-speaking Ariaal in terms of leadership selection for age-sets and kin assistance during

times of hardship. Such perspectives are reflected in the following:

> Before the Rendilles have age-sets, age-set of one group now. We have to choose a leader now among all that age. One person to be in charge of all that age-set. But now it is not possible because all the community living here is not necessarily the Rendille. Because they are now scattered. (male, August 2/95)

> Before when Rendille were in a temporary settlement, they had lineage of the families, like the father, the eldest son, who follows. People are just around so they are following each other and can help each other do things. Now it is different as your neighbour is not necessarily your brother or relative. (females and male, August 2/95)

Half of the eight focus groups referred to sedentary disadvantages which I categorized as **'Environmental Concerns,' 'Safety Concerns,'** and **'Community Friction.'** Perspectives pertaining to **'Environmental Concerns'** were offered exclusively by Rendille-speaking Ariaal and focused upon: the lack of salt in community soils for animal use; the inability of Ariaal to move animals and humans away from areas infested with parasitic ticks and chiggers; and the restrictions imposed upon Ariaal regarding any attempts to relocate livestock to warmer or cooler climates when local conditions proved to be unfavourable. Ariaal also expressed considerable discontent over the expenses involved in purchasing animal salt licks and medicines to eliminate ticks (females, female elders and males, July 25/95, July 29/95, August 2/95 and August 3/95). Disadvantages which revolved around **'Safety Concerns'** were also related to the restrictions imposed upon Ariaal movement, but this time within the context of *shifta* (bandit) and/or animal attacks. Lack of safety in sedentism was primarily mentioned by Rendille-speaking Ariaal, who used terms and phrases such as "stuck" and "unable to run

away" when describing their vulnerabilities in relation to enemy or lion attacks (females, female elders and males, July 29/95, August 1/95, August 2/95 and August 3/95).

In opposition to the **'Community Co-operation'** cited as an advantage of sedentism, both Samburu- and Rendille-speaking Ariaal referred to the sedentary disadvantage of **'Community Friction,'** presenting a contradiction in terms of previous responses. Ariaal commented on the jealousies, competition and quarrelling which arose in permanently established pastoral communities and stated that sedentism both kindled disputes and restricted movement away from ongoing altercations. Households are apt to bicker and quarrel over who is selling what product or whose child should assist in the herding or watering of livestock. Furthermore, the individualization of *shamba* plots has promoted 'private property' ideology and unless Ariaal households pay careful attention to the whereabouts of their animals, community disputes flare up over livestock intrusions into neighbouring gardens.

> Another disadvantage is this place. You know, the land. Before, the whole land belonged to the whole community, so they [animals] grazed anywhere. But now the land is limited and you cannot go into somebody's *shamba*. You have to look after your animals well. (female, July 29/95)

> There is badness also because maybe one of us might have a *shamba* and the neighbour's calf might come and eat the food. (females, August 1/95)

Other less frequently mentioned disadvantages of sedentism were offered exclusively by Rendille-speaking Ariaal. These related to the negative effects which current milk sales have on child nutrition; the decline in Ariaal fitness due to decreased walking-related exercise; and the reduced occurrence of ceremonial rituals such as

almhado and *soriu*. The former ritual required herbs which were not available in the area and the latter required livestock for sacrifice, which most households could not provide. Women also referred to the area's lack of firewood for marketing purposes and one women linked sedentism to current pressures placed on Ariaal to build larger houses in the settlement (females, female elders and males, July 25/95, July 29/95, August 2/95, August 3/95 and August 4/95).

In summation, female elders recalled the difficulties which Ariaal encountered during the initial stages of sedentism. Overall content analysis revealed that the most frequently mentioned disadvantage of sedentism pertained to the geographical separation of lineage members, which caused reduced feelings of kin connection, less visitation between family members, problems in obtaining family-related assistance and difficulties in the selection of age-set leaders. Rendille-speaking Ariaal were concerned with environmentally-related disadvantages which they referred to as: non-access of livestock to sufficient soil-contained salt; restriction of Ariaal movements away from areas infested with parasitic ticks; and the inability of Ariaal to relocate to more favourable climates when necessary. Safety concerns surrounding sedentism were also expressed by Rendille-speaking Ariaal in terms of their vulnerability to *shifta* (bandit) and/or wild animal attacks. The disharmonious aspects of sedentary living were portrayed in Ariaal representations of community friction. Participants claimed that full-blown disputes were often precipitated by market competition, bickering over children's livestock duties and the wanderings of unattended livestock into neighbouring *shambas*. Less frequently mentioned disadvantages of sedentism involved improper child nutrition due to milk

sales, a decline in Ariaal physical fitness due to lack of walking-related exercise, reduced practices of ceremonial rituals due to scarcity of herbal and livestock supplies, inadequate supplies of firewood for market sales, and increased pressure on Ariaal to construct larger homes.

Question 3: What is your opinion of female milk marketing? What is good about it? What is bad about it? Why?

The Ariaal had very mixed feelings about milk sales. Their ambivalency stems largely from the dilemma of 'needs' versus 'wants' - part of the current poverty trap that affects most Ariaal. On the advantage side of the issue, the members of seven focus groups referred to the cash earnings women gained from milk sales, which enabled the purchase of solid foods and payment of other household expenditures. Commonly cited purchased food items were *posho* (maize meal), sugar and tea leaves. The members of one focus group indicated that they had become so accustomed to foodstuffs other than milk that they felt they could not longer exist without solid foods (females, July 25/95). Other frequently mentioned expenditures were school fees, livestock medicine, family clothing and shoes, and beads for warriors. Less frequently mentioned expenses were those related to farm maintenance and the purchase of household soap and salt-licks.

While milk sale earnings were regarded as advantageous, this does not mean that the Ariaal regarded the sale of milk as good. The earnings are considered advantageous because they are necessary, as evidenced by the following statements:

> You know in this place men don't give money to the women and they [men] are also not working, they are not employed. So the women benefit from selling milk and to take care of their kids or buying other things that the husband does not. (female, August 1/95)

> Different families have different members - the number of children. Maybe they have only two cows or three. The milk is not enough for the whole family so you have to find a way to feed the family and you have no other money to go and buy the food. So you have to market the milk in order to buy things like *posho* which would be enough for the family now. (female, August 3/95)
>
> There will be times when you get even visitors and there will not be enough milk to give them, so in order to make this food now to be enough for them - because milk before is taken as food - I have to sell the milk and then buy things like *posho* in order to be enough for all of them. (female, August 2/95)
>
> There are times, a certain season, when all the animals, you know, are pregnant - I don't know how to put it. And so you will have little milk. Instead you go and market that little milk to get *posho* and you take strong tea. (female, August 3/95)
>
> Sometimes you don't have even soap to wash your clothes, so you have to sell your milk to get that soap. Maybe a child is sent from school to get some money. You don't have this money. What do you do? You sell the milk. (female, July 25/95)

While Ariaal 'needs' are reflected in the above, their 'wants' are a different matter. Opinions on the disadvantages of milk sales were vehemently offered by members of all eight focus groups, with many inferring that nutrition would be better for humans and livestock if women did not use milk for marketing purposes. The disadvantage most frequently mentioned was that women's milk sales took nutritional benefits of milk away from the children.

> It takes milk away from the children. Milk is better than maize for children. (females, August 1/95)
>
> It is bad that the children are going without milk. (females,

August 4/95)

> The children will miss milk at home because the women are taking all the milk to the market. And they [children] become big stomachs. The children are not healthy when they don't take milk. (male elder, August 3/95)

> Children are taking milk, so if they [women] are selling, children will have malnutrition. Even when they sell that milk, they buy carbohydrates - *posho* - so those children suffer from kwashiorkor [protein energy malnutrition]. (female, July 29/95)

Other Ariaal were concerned about the low amounts of milk available for warriors, visitors and adult household members and blamed women's milk sales for this reduced supply. Reference was also made to the inadequate milk supplies left for calf nutrition. Comments regarding these concerns included:

> It is bad because you know in our custom, warriors can't eat something like maize meal. They [milk sales] take milk away from the warriors. (females, August 1/95)

> Warriors - they don't eat anything in their mothers' houses, so it is bad to sell milk because warriors will be without. (female elder, July 27/95)

> It is bad to sell your milk when your friends come home and you don't have something to give them. (female, August 4/95)

> We are missing now, because there is no milk in our food and our tea, because we are selling everything. (females, August 1/95)

> Cows have four utters - they [women] only give one to the calf. They are taking almost three quarters of the milk and also the cows have not much milk. (female, July 29/95)

The women from one focus group claimed that another disadvantage to milk marketing was the amount of time women spent in the market place. These females felt

that this time could be better spent in planting or watering *shambas* (July 25/95). One female elder remarked that the milk often went bad during long travels to Marsabit and that carrying cumbersome milk containers was extremely tiring (July 27/95).

The differing opinions expressed by Ariaal regarding women's milk sales can be explained by concepts such as the 'ideal' and the 'real'. Ideally, Ariaal maintain that milk should not be sold as this depletes household supplies, deprives children and warriors of adequate nutrition, and lowers milk intake by nursing calves. Realities are such, however, that Ariaal women need to market milk to earn cash for food purchases and other household expenditures.

Question 4: What does your spouse think about female milk marketing? What does he like? What does he not like?

The initial response to these particular questions immediately raised two issues. The first pertained to the fact that none of the members of one Samburu-speaking Ariaal group were involved in milk sales. This was partially due to sampling but was also related to husbands' disapproval of these sales and women's own views on the importance of milk in their diets (females, August 1/95). A second and more surprising issue pertained to the apparent secrecy which surrounded women's milk sales in the Karare/Scheme area. Members from five focus groups indicated that they were secretive about their milk marketing activities as far as their spouses were concerned, often to the point where women employed deceptive tactics in order to sell their milk.

> If he [spouse] doesn't agree to sell milk, we have to do it secretly...send one of our children to market it. (females, August 3/95)
>
> My husband doesn't like me to sell milk but I do it secretly.

> I just tell my husband...yes, I am not going to sell the milk but as soon as he goes out, I go to market it and say,...oh, the children have finished milk. (female, August 2/95)
>
> We sell it. We just don't tell him. (females, August 4/95)
>
> This is our secret. Our husband doesn't know that we are selling milk. We pool our milk together and then one person goes to sell it. Even the money we put together ....then share what we buy among ourselves. (3 co-wives, July 25/95)
>
> He [spouse] doesn't like, but we just do among ourselves. It is something we do secretly. (females, July 29/95)

On the whole, spouses did not like their wives to sell milk, arguing that these sales took milk supplies away from children or themselves (all groups with the exception of Group 4, August 1/95). Other women claimed that their spouses did not approve of them being away from the house and wanted their wives available at all times (females, July 27/95). Some females indicated that husbands feared they would be exposed to new experiences and/or other men if they were to market milk regularly in town (females, July 27/95), and the women from one group remarked that their husbands would beat them if they knew of their milk sales (August 3/95).

Participants reported that if spouses happened to become aware of their wives' milk marketing activities, they demanded the cash from milk sales or requested that purchases of *miraa* be bought for them to chew (females, female elders and male, August 3/95). In this event, several women from one group revealed their strategy:

> [When our husbands say] if you are going to sell the milk today, make sure that you return the money so that I can get *miraa*, or get me *miraa*, we have to cheat. We say, no...I am not selling milk. I am giving all the milk to children

> and don't have any to sell. (females, female elders, August 3/95)

Only two women stated that their spouses approved of their milk sales. One woman remarked that her husband was away at work and was happy about her milk sale earnings as this eliminated any need on his part to send money home to her (female, August 1/95). Another woman stated that her husband approved of her milk marketing as he liked the food and tobacco she purchased for him with her income (female, July 27/95).

In summary, most Ariaal participants who marketed milk were secretive about these activities and devised strategies to keep spouses unaware of their milk sales and earnings. Generally, husbands did not approve of their wives selling milk, reasoning that this took milk away from children and themselves. In two cases where husbands approved of their wives' milk marketing, one felt relieved of his financial obligations to family, while the other enjoyed the foods/tobacco purchased from his wife's milk earnings.

Question 5: Is milk marketing an extension of your household responsibilities?

The following analysis was based on interview findings from six focus groups. For reasons unknown, the above question was not asked of group #4, interviewed on July 27/95. None of the women interviewed on August 1/95 in group #5 participated in milk sales.

Almost all of the group participants who marketed milk currently regard this activity as an extension of their household responsibilities. Even though milk sales were often carried out in secret because of spouses' disapproval, the women themselves

regarded this activity as a household duty. Their main reasons for considering it as such were that milk earnings were necessary to cover household food costs and children's educational expenses.

Question 6: Is the role of milk increasing/decreasing in importance as a dietary item and/or in its use in customary practices?

The most frequent response to the initial part of the question was that the role of milk was decreasing in importance as a dietary item. Some Ariaal females reasoned that because of their current consumption of foods other than milk, they and their children no longer felt like they had eaten if their meals consisted solely of milk (females, July 25/95, August 2/95). Others simply stated they ate other foods and that while milk was still important to them, they took it as a second choice (females, July 27/95, July 29/95, August 2/95). One group of women claimed milk was decreasing in importance in their diet because of the reduced quantity and quality of milk presently available. They attributed the current scarcity of milk to drought-induced livestock loss, poor grazing conditions for cattle, and livestock inaccessibility to 'special' waters containing salt. As to the quality of milk, these women stated that it contained less fat than in previous times (females, August 1/95).

Less frequent were responses indicating that the role of milk was increasing in importance as a dietary item. The Samburu-speaking Ariaal women from Group #5 - a group that did not contain female milk marketers - emphatically stated that milk was increasing in importance in their diets (females and female elders, August 1/95). Other women argued that the role of milk had not decreased in importance in their diets - they just did not have enough of it to take as food (females, August 3/95). A reasoning group

of females stated that indirectly the role of milk was increasing in importance because the money they gained from milk sales enabled them to buy other foods! (females, August 4/95)

As to the importance of the role of milk in customary practices, the consensus among groups was that this was still very important. No suggestion was made that this role was increasing, however. The general understanding conveyed was that the role of milk in ceremonial practices was maintained whenever milk supplies permitted this. As one group of women stated, the actual performance of the ceremonies may be decreasing, but this was only because of the scarcity of milk and had nothing to do with importance (females, August 2/95). To make this point clear, many of the focus group participants discussed the Ariaal ceremonial rituals which involved the use of milk. These are briefly summarized below on the basis of the two Ariaal language groups.

The Samburu-speaking groups (2, 4 and 5) claimed that milk played an important role in all of the ceremonial rituals they practised. In circumcision ceremonies for males, gifts of milk are brought by relatives and friends. The bodies of boys/men are anointed with milk just prior to circumcision. During the month following the ceremony, a mixture of blood and milk is frequently ingested by newly circumcised males. For female circumcision ceremonies, gifts of milk are also brought by family members and friends. The head of the girl/woman is anointed with the fat from the milk (cream) or whole milk, before circumcision. Following the procedure, the female is served tea and milk. Opinions differed among Samburu-speaking groups regarding the role and significance of the cream used in female circumcision ceremonies. One group claimed

that the cream was used only if the girl/woman was a 'good' girl and/or a virgin. 'Good' in this context meant that the female had not had a previous pregnancy and/or abortion prior to her circumcision. If she was 'good,' parents would provide cream for their daughter's circumcision to signify that she was a 'clean' girl (group 4, August 1/95). Other Samburu-speaking Ariaal stated that the female was anointed with milk, not cream, and this was done regardless of whether she was a 'good' girl and/or a virgin (group 5, August 1/95). The use of milk was also referred to within the context of the marriage ceremony, but no descriptions of its ritual role were offered by any of the groups.

Samburu-speaking Ariaal focus groups (groups 4 and 5) also described a ceremony which takes place in a cave situated on a nearby mountain named Ndnyao Nkai. The ceremonial purpose is to pray for rain and/or give thanks to god with sacrificial offerings of a goat. A mixture of milk and blood is smeared at the entrance to the cave and milk is also sprinkled on the cave floor. Similar reference was made to the sprinkling of milk in other 'holy' places.

> There are some places they are saying that are blessed. When you pass to those places, like a holy place, when you pass there you have to carry milk and sprinkle it. (female, August 1/95)

Another ceremony was described as occurring at a place called Ilchuta, which is located near a water-filled crater. This ritual involves songs of praise and gratuitous offerings to god symbolized by tossing sprinklings of milk into crater waters (male and females, August 1/95).

Samburu-speaking Ariaal elders are often called upon to bless a certain family or person who is having problems. This type of ritual is a form of curse removal and

involves the sprinkling of milk. Milk is also used by certain Ariaal who specialize in chasing snakes or unwanted wild animals and enemies away from household compounds.

> If snakes come to your place, it's like something done to you [a curse]. In the clan there are these types of people who use their beliefs to chase the snakes away. So they put some milk in their mouth and then they sprinkle [it] in the compounds and then the snakes go. These special people are for wild animals...you know there are different clans. Clans for the elephants, buffaloes, lions, for *shiftas*. When they say something to the elephants, the elephants will not stay there again. Like before when you came to settle in this house, there is a woman who came and she is the one for the snakes. My mother told her you were coming and that she was afraid that the snakes are coming. She came and we have not seen one. (female, August 1/95)

Samburu-speaking Ariaal also claimed that when an elder dies, provisions of milk and tobacco are kept by the grave site and replenished often. I had occasion to observe these provisions by the grave of a grandmother of one of the participants.

> When an old man or an old woman dies in the family, you have to go and put milk all the time. We believe that when we put milk and tobacco, they are going to eat. If we don't put, they think we have forgotten them. We believe that when we are putting the milk they are still with us. (female, August 1/95)

Rendille-speaking Ariaal groups on the other hand, spoke of quite different rituals involving the use of milk (groups 1, 7 and 8). Although there was very brief reference made to anointments of milk during male circumcision, the ingestion of milk during marriage ceremonies and the spitting of milk by elders to rid an area of snakes, it was emphasized that in Rendille custom, milk played an important role in four ceremonies only.

The first ritual takes place when there is a new moon. Milk is poured onto the

ground in a gratuitous offering to god for allowing Rendille to see the new moon. A second ceremony where milk plays an important role is *soriu*, a ritual designed to invoke blessings for livestock well-being through the means of sacrificial offerings of a goat/ sheep. Prior to sacrifice, the animal is washed with milk as a sign of purification. The third ceremony is *almhado*, also practised to ensure livestock well-being, however Rendille-speaking Ariaal claimed they now carry this ceremony out at Easter, incorporating a more direct emphasis on human blessings into the ritual's significance. In preparation for the *almhado* ceremony, milk is poured into a *dare* (trough) and mixed with special herbs and bits of desert trees called *halaleh*, which contain fragrant oils. A small container, which is crafted by the Rendille and called a *horah*, is dipped into the milk mixture. Ceremonial participants dip their fingers into the milk contained in the *horah* and apply drops of the mixture to their foreheads, chests, elbows and knees.

> It is sort of like a baptism-like. That one now is washing away your sins. (female, July 25/95)

A fourth important ritual involving milk occurs every evening in each Rendille-speaking Ariaal household, provided there is an elder male present. At this time, the elder sits on a specially designed stool which has been placed outside to the right of the entrance to his elder wife's house. He holds a cup of milk, which he tastes. Then, upon spitting a mouthful of milk on the ground, the elder gives thanks to god for bringing his animals together in the evening and for all the good things in his family, including children (male and females, July 25/95, August 4/95).

In summary, most participants stated that the role of milk was decreasing in importance as a dietary item, citing either the low quantity/quality of milk, or

consumption of other types of food, as the reason. The importance of the role of milk in customary practices was emphasized, however. Even if the rituals did not occur as frequently as in the past, this had everything to do with the scarcity of milk and nothing to do with the importance of milk within the ceremonial context.

There seemed to be a distinct difference between the types of ceremonies which Samburu- and Rendille-speaking Ariaal each emphasized to illustrate the important role of milk. Samburu-speaking groups emphasized the use of milk during circumcision rituals and the role of milk in ceremonies which took place in sacred places, such as in a cave on Ndnyao Nakai mountain, or alongside a water-filled crater at Ilchuta. Samburu-speaking Ariaal also mentioned rituals involving the sprinkling of milk by elders or special clan members as part of curse-removal or as preventative measures designed to ward off household intrusions of snakes, wild animals or enemies. Rendille-speaking groups on the other hand, focused largely upon the use of milk within the context of more formally established and regularly occurring rituals. These revolved around appearances of the new moon, *soriu*, *almhado*, and nightly household rituals in which elder males express thanks for the well-being of families and herds.

Question 7: Is it becoming more difficult or easier to gain access to dairy resources? Why?

Group responses to this question were mixed. The three Samburu-speaking Ariaal groups (2, 4 and 5) regarded access to dairy resources as more difficult because of drought-related livestock loss and low milk productivity of existing cattle. Some women claimed that sedentary conditions prevented the Ariaal from moving their cattle to better grazing pastures and/or to special salt-containing waters and soils which would increase

the milk productivity of the animals (females, August 1/95). They contended that ticks were also a causal factor in the current scarcity of dairy resources, as ticks attack the teats of cattle, reducing milk production. In former times, Ariaal would move their animals to non-infested pastures, but now this was impossible (females, August 1/95). Several female elders remarked that when they were moving around, they drank only milk and were unfamiliar with other types of food. Now, they claimed, women were selling what little milk they had in order to buy other foods (females, August 1/95).

Of the Rendille-speaking Ariaal groups, two were of the opinion that it was easier to gain access to dairy resources, although women from one group did not state why this was so (females, July 25/95 and August 4/95). The second group contained three co-wives, who commented that if one wife did not have enough milk, the others helped as they always assisted each other with milk supplies (females, July 25/95). The remaining three Rendille-speaking Ariaal groups claimed that access to dairy resources was either easier or more difficult, depending on the season. In the dry season, it was more difficult because the animals were moved to *fora* (outlying pastures) leaving households with access to only one or two milking cows. In the wet season, all the cattle were close to home and because milk production increased with the rains it was easier to gain access to dairy resources then (females, female elders, July 29/95, August 2/95 and August 3/95).

Question 8: Do you feel that conditions are better/worse for women now than they used to be? Please explain.

Only three focus groups were of the opinion that conditions were better for women now (females and female elders, July 25/95, July 27/95 and August 1/95). In one of these groups, the elder of three co-wives stated that conditions were not good for

women when the Ariaal moved from place to place as men did not help with the work then.

> The attitude of men has changed now. It is not like before. Before the men didn't do any work. They would just go and do a game called *bola* until evening, when they come to look for food. But now they can do the sharing of the work. They can plough the *shambas*. (female elder, July 25/95)

This particular elder also stated that conditions were better for her now that she had co-wives, as they helped one another with household duties and the care of animals (female elder, July 25/95). Other women from this group, as well as from others, remarked that men helped women more now with household labour (females, female elders, July 25/95, July 29/95, August 1/95, August 3/95). Some commented that men considered women to be more equal partners, giving women more power than before. One focus group credited the change in men's attitudes to Ariaal education.

> Conditions for women have improved because our people are getting experience. They are educated so they have improved now. Because of education we [women] are included now...now all of us are equal. Women didn't have a say before, but now we can talk in the meetings. (females, July 27/95)

> We have more power now than before. Women have a say because they are also being called by their elders to explain what decisions are good for them to do. Before we don't even come to where the elders were at the time of meeting. In some places women are being elected to be a counsellor. (females, female elders and male, August 1/95)

Women from four focus groups (3, 4, 7 and 8) unanimously stated that conditions were worse for women now than previously. Most women from group #6 also shared similar perspectives, but one female argued that while women's workloads might be

heavier now - making this aspect worse - the 'conditions' for women were actually better.

> Before women had to walk long distances sometimes with hunger and thirst, even though the work was less. Now although the work is much now for women, the conditions are better now for women than before. (female, August 2/95)

Females who contended that conditions were worse, supported their statements by referring to women's heavier workloads, increased human disease, higher living expenses, as well as increased spousal neglect and/or physical abuse.

> The work of women has increased because before we just put our houses on top of our camels and then we move. Now we are not moving but we have a lot of work to do, like building this house, which will take a month, or a month and a half, digging another *chou* - a deep latrine, and watering plants...that is also work. Then cooking is also another work. The work is increasing. (female, August 2/95)

> Because of being settled, women have to plough...dig the *shambas*. Before we never used to market milk. Now we take milk from Karare to Marsabit and back again. Also when you go to market milk, on your way back home, you also bring firewood. So you are doing too many things at the same time. We now get grass for small cows...before we just left them to move. Before we never used to have clothes...but now we have again another job of washing clothes. Now we are also running after birds who are eating up our crops. (females and female elder, August 3/95)

> We are now digging the *shambas*. Before we just got fresh water and we came home and rested. Now you have to check your animals so they will not go into somebody's *shamba*. You have to build your house and put more grass. So that is all difficult for us now. And also the family. We have to also care for the family, the animals, the *shamba*. Sometimes you work and elephants come and clear [the *shamba*] so you start again without food. (females, July 29/85)

> Before we were not washing clothes, we were having skins. Now we wash clothes. Before we were not washing food-plates, sweeping houses, or having *shambas*...now we do. (females, August 4/95)

Increased Ariaal disease and higher household expenses factored into worsening conditions for women.

> The most important thing before is that there was no expense and life was easier than the life now, because we didn't know of buying medicines, buying clothes. We used to put on skins that lasted for many years, until we changed to another skin. We weren't eating different types of food - just milk and blood. In those days there were no diseases. We were not getting diseases like today. (females, August 1/95)

> Before we were not wearing these shoes, we cut skins. Before we were not having medicine, we just get from the trees. Before when we take only milk and meat, we were healthy. Now we are not healthy. (females, August 4/95)

Women also spoke of increased spousal neglect and abuse.

> Before husbands took more care of the family than now... you know because of the change of environments and also because they are with alcohol and *miraa*. The little [money] the husband gets, instead of taking it to the family, he goes and uses it for drinking. So it's the women who are running the family. (females, August 1/95)

> Husbands are beating us more than the other years. (females, August 4/95)

In summary, perspectives offered by most Ariaal females conveyed that conditions are worse for women now than they were prior to sedentism. Although some women claimed that men assisted more with household labour than in previous times, the majority of females stated that women's workloads were heavier now because of sedentary conditions. Increased human disease, higher living expenses and more

incidence of neglect and/or abuse from husbands were also cited as factors related to sedentism and worsening conditions for Ariaal women.

Question 9: What are your feelings regarding education for your daughters?

With the exception of two male participants, members of all focus groups were highly in favour of education for their daughters. Of the two men who disfavoured education for daughters, one elder argued,

> Before our daughters looked after animals and you could sell your daughter regardless of her age. You could give a small girl of ten to an old man of sixty, but now we cannot do that because of school. Because of educating them now you cannot just remove your kid from school. This is a disadvantage because you cannot sell your daughter at any age that you want. (male elder, August 2/95)

The younger male stated that school was a waste of time for "ladies" as they were sold to husbands upon completion of their elementary education and subsequently never finished the higher level grades (male, August 3/95).

The current enthusiasm demonstrated by most participants regarding the education of daughters was not always prevalent, however. Females and one male recalled times when they feared their daughters would become "lost" if they sent them to school, believing that girls would learn different ways of living and bad behaviour from children from other tribes (male, females, July 25/95 and August 2/95). Others told of their early fears about educating any of their children and described their experimentation with one child.

> The first time when our children went to school, the first child that we Rendille sent to school was an orphan, somebody who didn't have a father and mother, because we thought that child was just being thrown away. So we

> say... who should we send to school first and see what will happen? So we sent this orphan because he doesn't have father, mother or grandparents. Now we want all our children to be educated and in fact, we even regret that we didn't go to school ourselves. (females, July 29/95)

Participants cited numerous positive reasons for educating a daughter, the most frequent being that she would gain favourable employment and would thus provide her parents with financial aid and/or assistance in other ways. This latter point referred to a daughter's acquisition of teaching or nursing skills which would benefit parents and/or community members. Financial assistance from income-earning educated daughters equated to new and better homes for parents and guaranteed care in their old-age. Permitting a daughter to have an education meant greater returns to parents in later years (females, female elders, male, July 29/95, August 1/95, August 2/95, August 3/95, August 4/95).

An additional advantage to having an educated daughter was that parents could demand higher bridewealth upon arranging her marriage, claiming their daughter's education would be profitable to her husband and his family (female, July 27/95). One woman stated that education was an advantage to daughters as they learned to think for themselves, which helped them to choose their own husbands independently instead of allowing themselves to be sold (female, August 2/95). Other females contended that education broadened a daughter's knowledge and that it was good for her to go to school in order to learn city survival skills (females, August 4/95). Women from one focus group expressed their positive views regarding education for daughters as follows,

> It is important to educate a girl, because before you were just sold to another man, to be married by that man. Then

> after a certain time, when the husband divorced you, you have nowhere to go and you have to come back to your parents and add more problems to your parents. But now if a girl is educated and she gets married, even if the husband divorces her, she will still continue her life because she has her own money from her salary. Also when a girl is educated, she will take more care of her parents. She will send money and she will come home to see them. (females, August 1/95)

Another female's straightforward assessment was,

> I personally would like to take my daughter to school because otherwise she [can be] sold by the father. The animals that her husband [could] give us.. the drought comes and finishes them. What's the point? So we have lost. (female, August 3/95)

In summary, most participants were in favour of education for daughters, stating that once gainfully employed, female offspring would provide parents with better houses and financial care in their old age. Having an educated daughter also allowed parents to demand higher bridewealth when arranging her marriage. Some women claimed that education was an advantage to the daughters themselves, as it broadened their knowledge and helped them to become financially independent, thus lessening their vulnerability if abandoned or divorced by their husbands.

Question 10: If you had to choose between educating a boy or a girl which would you choose? Why?

Based on the responses given by all focus groups, most participants favoured the choice of educating a girl. Only one group was unanimous in its choice of a boy, reasoning that in the long run, parental expenditures for a girl's education would only benefit her husband. These participants added that boys might leave the household for awhile but would return, whereas girls would remain with their husbands elsewhere

(females, August 1/95). Two women from other focus groups stated that they would also choose a boy, one reasoning that her son was the first-born and therefore should be chosen (July 27/95), while the other contended that an educated boy would help her more than an educated girl (August 4/95). Three male participants stated that they would choose boys, either reasoning that boys would finish their education, whereas girls would not, or that they preferred to sell young daughters for cattle and were prevented from doing so when girls were in school (males, male elder, August 2/95 and August 3/95). One woman emphasized the importance of daughters in Ariaal culture, stating "the more ladies you have, the richer you are, especially men" (female, August 2/95).

With these exceptions, all other Ariaal female participants enthusiastically stated they would make the choice of educating a girl. Girls, they remarked, would always return to help their parents, whereas boys did not. Women contended that once educated and/or employed away from the settlement, males tended to go their own way and were often never seen by their natal families. They indicated that sons were notorious for their financial neglect of parents, as well as their purchases of *miraa* and/or alcohol. Participants also claimed that once sons were married, they designated their time and money to wives and in-laws.

> The girl should go to school....The ladies help at home because they can even send you money, but boys don't. If they get money, they go and drink instead of sending it to you....When he grows up and gets married, he will throw away the parents. He will only look after the other family that he has married. (females, July 29/95)

> We would choose the lady to go to school....When she gets a job, she will come back and help her parents, but the boys don't do that....After they get the money, they go and chew

> *miraa*...they will start smoking and finish their money [on] women. (females and female elder, August 3/95)
>
> We prefer [to educate] daughters because our daughters will come back and help us. But mostly the boys...they don't, when they get the job, they go away. When they get married they forget their parents and they would only care for the family that they have married. (females, July 25/95)
>
> We say daughters....If she is employed she can just remember her mother or parents, but for the son, he cannot remember. He just cash money, he disappear away. (females, July 27/95)
>
> If a daughter goes and gets married, she will still take care of her husband and kids and take care of her parents. But when a boy goes away and gets married, maybe he will never care nothing for his own parents and send anything home. It is the girl who does. She has heart, good heart for her parents. They [boys] go to their places of work, they get married...they stay in Nairobi or Mombasa where they got married and they never come home....It is a curse to sons if they are not there when you [parents] are dying, so they are coming at the very end. (females, August 1/95)

When I considered the many Ariaal responses which indirectly suggested that the relationship between mothers and sons may not be as close as indicated in the literature, during one final group interview on August 3/95, I inquired about mother/son relationships with respect to inheritance of cattle. Upon asking women to clarify any misunderstandings I might have regarding women's close ties with sons, or the provision of care by sons, I was told by a spokeswoman that three-quarters of sons do not look after their mothers (female, August 3/95). It was additionally stated that even though women made certain that animals remained within households for a son(s) to inherit, when a boy got married, he was apt to "look after the other family more than his parents. It is the ladies who solve the problems of their parents more than the boys" (female, August

3/95).

Question 11: In your opinion, are there alcohol-related problems in Karare which could be related to the effects of sedentism? Please explain.

Participants of six focus groups maintained that there were alcohol-related problems in Karare which could be attributed to the effects of sedentism. Two groups stated that these problems were minimal, claiming that alcohol was only a problem with people who had nothing else to do. One female speculated that alcohol-related problems would increase with time, as men were copying other people's ways (females, August 1/95 and August 4/95).

Of those who claimed that alcohol-abuse was a problem in Karare, many attributed this to the availability of maize for *posho* and easy access to water - the ingredients necessary for the making of local brew (females July 29/95, August 1/95, August 2/95 and August 3/95). Women also stated that when Ariaal moved around, nobody had the time to make alcohol and/or the means for transporting fermenting brew (females, July 29/95, August 1/95 and August 3/95). Furthermore, a safety factor was involved in the former non-use of alcohol. Participants commented that Ariaal now felt more relaxed about drinking as wild animals generally remained outside the settlement compounds (females, August 2/95). Women also remarked that sedentary conditions guaranteed that they would always sell their ready-made brew because regular customers never moved out of the area (females, August 3/95).

The majority of females claimed that in Karare, alcohol addiction was most prevalent in males, adding that men's drunken fighting often led to their arrest. Women also stated that because of alcohol addiction, men forgot their financial responsibilities

towards their children (females, July 25/95, July 27/95, July 29/95, August 1/95, August 3/95). Women maintained they brewed to get cash from males to buy food and/or clothing for children, claiming that they could not obtain these funds otherwise (July 27/95 and August 3/95). They stated as well, that brewing allowed them to earn ample income while remaining primarily in the home (females, July 27/95).

8.3 Discussion and Summary

Although broad inferences cannot be made from *The Ariaal Rendille Group Questionnaire* findings, the results do provide us with considerable insights into how Ariaal females of Karare/Scheme perceive their sedentary situation. Focus group discussions also facilitated deeper understanding of the psychological sufferings which Ariaal endured during the initial phases of sedentarization. Female elders presented clear recollections of their resentments, fears and insecurities over 'forced' indoctrination to new ways of living, the acquisition of unfamiliar agricultural skills, separation from lineage family members, as well as children's mandatory inclusion in the educational system. Personal revelations of this nature created a greater appreciation for the adjustments which Ariaal have made, and which they continue to make in contemporary times.

Ariaal perspectives regarding the effects of sedentism involve six, sometimes overlapping, sets of issues. The first set concerns Ariaal female perspectives on the advantages of sedentism. Indications are that, once Ariaal had moved through their initial resistance to accepting new information and/or skills, their perceptions gradually

changed, and activities such as farming, marketing, house construction and the use of new foods, came to be viewed as positive contributions to Ariaal strategies for self-sufficiency and survival. Other advantages included more convenient access to transportation and water, and the nearby location of educational, medical and religious facilities. Land ownership was not mentioned as an advantage to sedentism by Ariaal females, although it was perceived as such by one male, indirectly suggesting that women's rights to property remain largely non-existent.

Ariaal perspectives on the disadvantages of sedentism generally revolved around their discontent over immobilization of livestock and of the people themselves. The majority of Ariaal felt that sedentism had separated them from lineage members and/or close family who were settled elsewhere. The cessation of regular household movements made visits with relatives infrequent, giving rise to increased feelings of isolation and segregation from parents and/or other kin. Human and livestock immobility also made Ariaal feel more susceptible and vulnerable to enemy and/or wild animal attacks. Further concerns over livestock immobilization centred around the current low milk production of cattle, a concern which is supported by findings from the quantitative study. For improved milk productivity, many Ariaal females claimed that livestock required access to better salt-containing soils and/or waters, removal from tick infested areas and/or relocation to more favourable grazing lands when local climatic conditions demanded this.

The close physical proximity of Ariaal households was another concern, although this proved to be double-sided. On the one hand, many Ariaal felt that 'nearness' was an

advantage, as households were able to assist each other with animal care, child care, garden cultivation, crop harvesting, house building, firewood and water collection and with duties related to milk sales. Alternatively, many women claimed that residing in close proximity was a disadvantage, as this led to increased jealousies, competition and quarrelling, which once full-blown, were impossible to escape.

The third set of issues centred on the role and use of milk by the Ariaal. Here an 'emic' dimension was added to the statistical findings of *The Ariaal Rendille Milk Marketing Study*. Most Ariaal maintained that ideally, milk should not be sold, as this depletes household supplies, deprives children and warriors of adequate nutrition and lowers milk intake by nursing calves. The realities are such, however, that Ariaal females are required to market milk to earn cash for food purchases and other household expenditures. Even if the spouses of milk marketers did not approve of their wives' milk sales, women continued their marketing activities and employed secret, and sometimes deceptive, strategies to keep husbands unaware of their sales and earnings. Upon obtaining this information, I regretted that female participants in *The Ariaal Rendille Milk Marketing Study* were not asked similar questions regarding husbands' opinions regarding the sale of milk.

Ariaal believed that milk was declining in importance in their diets, and that it was now often a second choice food item. Some participants claimed they could no longer exist on milk alone, as they and their families had become accustomed to other foods. Other women stated that milk was decreasing in importance because of the reduced quantity and quality of milk presently available, attributing this to drought-

induced livestock loss, poor grazing conditions, and the inaccessibility of 'special' salt-containing waters for cattle. Access to dairy resources was considered to be more difficult in the dry seasons but fairly easy in wet seasons when milk productivity of cattle increased dramatically. The role of milk was still considered to be extremely important in customary practices. Although the actual number of performances of ceremonies which involve the use of milk was decreasing, this was a result of milk scarcity and had nothing to do with the importance of the ritual role of milk in ceremonial practices. Ariaal females emphasized the predominant role of milk in customary rituals by reviewing these practices in detail.

This latter point leads into the fourth area which relates to the differences between Samburu- and Rendille-speaking Ariaal regarding the types of customary practices in which milk plays an important role. Samburu-speaking groups emphasized the use of milk in circumcision ceremonies and the role of milk in ceremonies which took place in sacred places, such as the cave site on Ndnyao Nakai mountain, or alongside the water-filled crater at Ilchuta. These Ariaal also focused on rituals involving the sprinkling of milk by elders, or special clan members, as part of curse-removal procedures or as preventative measures designed to ward off household intrusions of snakes, wild animals or enemies. Rendille-speaking Ariaal groups on the other hand, focused largely on the use of milk within the context of more formalized and regularly occurring rituals. These revolved around appearances of the new moon, *soriu*, *almhado*, and nightly household rituals in which elder males express thanks for the well-being of families and herds.

The fifth and sixth set of issues addressed women's present conditions and

education for Ariaal females. Ariaal women demonstrated tremendous enthusiasm while conversing about these two issues, leaving little doubt in my mind that these matters are of paramount concern to them. It appears that sedentism has made conditions worse for Ariaal women. Although men's attitudes have improved, in that women are now periodically included in the community decision-making process and/or males are assisting more with household labour, generally feelings ran high that life was more difficult for women now than prior to sedentary times. Females referred to women's heavier workloads, increased human disease, higher living expenses, as well as increased spousal neglect and/or physical abuse. The majority of females claimed that alcohol-abuse was a problem in Karare, stating that addiction was most prevalent in males. Besides causing household disruption, men's drunken fighting frequently led to their arrest and many addicted males neglected their financial obligations towards their children. Women generally conveyed the impression that it was primarily Ariaal females who shouldered all the responsibilities for household maintenance.

When questioned on issues related to the education of children, most women were highly in favour of education for their daughters, and in fact, selected female children when asked to choose between educating a girl or a boy. Findings related to educational issues generated new insights with respect to the importance and closeness of mother/daughter dyads *versus* mother/son dyads - a topic which warrants further investigation in future.

In Chapter 9 which follows, the thesis presents a final assessment of Ariaal milk marketing and sedentary conditions for women. This assessment is based on combined

findings from *The Ariaal Rendille Milk Marketing Study*, *The Ariaal Rendille Group Questionnaire* and my observations while in the field. In addition, the chapter compares study results with other related research on pastoral women.

CHAPTER 9

FINAL ASSESSMENT OF ARIAAL MILK MARKETING AND SEDENTARY CONDITIONS FOR WOMEN: COMPARATIVE LITERATURE FINDINGS

9.1 Introduction

In my coverage of focal investigations I stressed that there was considerable inter- and intra-settlement variability in Ariaal women's socio-economic circumstances and activities. In this chapter however, based on all the information gathered by RAP, I offer a broad assessment of Ariaal milk marketing and the current sedentary conditions for women. This perhaps leaves me open to criticism, given the short time I spent in the field. In defence, I refer to Scrimshaw and Hurtado's (1987:1) 'map' analogy, which explains my approach in assessing Ariaal information collected through short-term field investigations.

In brief, Scrimshaw and Hurtado (1987:1) suggested that one could consider beliefs and behaviours of sample participants as "analogous to rivers and mountains on a map." Admittedly, unless they were surveyed in detail "one would not know the depth or velocity of a river or the precise height of a mountain" (Scrimshaw and Hurtado 1987:1), but the map does chart where rivers and mountains exist, and grid amalgamation delineates a broad 'picture.' Based on this approach, I present the following assessment, co-factoring previous research findings on Ariaal and other pastoral women with results from *The Ariaal Rendille Milk Marketing Study*, *The Ariaal Rendille Group Questionnaire* and my own personal observations in the field.

9.2 General Trends

In my perspective, the socio-economic conditions for Ariaal females of Kijiji and Karare are poor and the disadvantages of sedentism far outweigh any advantages which may have filtered into women's lives. It is difficult to reconcile my research findings and field observations of the Ariaal with those of Fratkin and Smith (1995), who maintain that sedentarization in, or around towns can bring positive benefits to pastoral females, enabling them to increase their economic opportunities through dairy marketing and/or petty commodity sales (1995:433-434). While they noted Karare women's involvement in milk sales, Fratkin and Smith (1995) did not assess the extent to which marketing depleted household milk supplies, nor did they determine the gainfulness of the Ariaal milk trade. In addition, their investigations took a rather reverse approach to the fact that Ariaal women's milk sales arose as a response to poverty - poverty exacerbated by sedentary conditions. Sedentarization has been a causal factor in Ariaal impoverishment, not a positive benefit enhancing Karare women's economic opportunities.

Milk marketing is not a lucrative enterprise for the Ariaal. It provides the barest means for survival. The recent establishment of Kijiji suggests that women are desperate for income, for aside from laboriously earning it, they must struggle daily with Kijiji settlement deficiencies. Kijiji is remote and removed from easy access to water, firewood and medical facilities, making women's chores more difficult and family health care more precarious. Each day, female marketers trek long distances to Marsabit, selling small amounts of milk to purchase survival rations of grain. On occasion, assistance with child care is difficult to obtain and some mothers have no other recourse

but to leave small toddlers and young children alone while they attend to water, firewood and/or marketing chores. Often these youngsters are ill or injured and must cope on their own.

The situation is grim in all settlements as far as the availability of milk for household use is concerned. The following table indicates just how serious the Ariaal milk predicament is in the Kijiji - Karare area.

Table 9.1 Average Daily Milk Portion Currently Available per Household Individual (Based on Tables 7.2 and 7.3)

Settlement	Dry Season milk/person/day	Wet Season milk/person/day
Samburu Kijiji	1.4 ounces	5.1 ounces
Rendille Kijiji	2.9 ounces	7.4 ounces
Karare-Kulapesa	2.3 ounces	4.8 ounces

Ariaal women themselves take a dim view of milk sales, stating that milk marketing deprives growing children of the valuable nutrients contained in milk, resulting in kwashiorkor - a protein deficiency disease. Contrary to Fratkin and Smith's (1995:450) impression that Karare milk sales involve only surplus milk and that women's "proximity to town markets leads to improvements in child nutrition," in reality there is no surplus milk for Ariaal and many children exist primarily on maize. Milk marketing has become a year-round necessity rather than an economic opportunity, and women now consider milk sales to be part of their daily routine. The sun-scorched treks to Marsabit or long hours spent in the Karare *soko* are not just optional activities - they are necessary chores to keep starvation at bay. If Ariaal women were to cease marketing milk

altogether, most individuals would not have sufficient milk, in dry or wet season, to meet total daily nutritional needs (see Table 9.2).

Table 9.2 Average Daily Milk Portion Potentially Available per Household Individual if Milk Marketing Ceased (Based on Tables 7.2 and 7.3)

Settlement	Dry Season milk/person/day	Wet Season milk/person/day
Samburu Kijiji	5.6 ounces	14.0 ounces
Rendille Kijiji	11.4 ounces	23.9 ounces
Karare-Kulapesa	6.1 ounces	12.8 ounces

Ariaal frankly admit that the role of milk is decreasing in importance in their diet because of scanty milk supplies. Due to increased intake of other foods in lieu of milk, many women now claim they are accustomed to solid food items and would feel unsatiated without them. Given all of the above, it would appear that Kijiji and Karare Ariaal live in harsher times and more difficult conditions than when Fratkin (1991:43) observed, "Ariaal depend on their livestock primarily for milk, which constitutes 70% of the diet in the pastoral settlements."

Of all the information in the literature, Joekes and Pointing's (1991) description of the negative repercussions which befall pastoral females under sedentary conditions best fit my assessment of the Ariaal situation at Kijiji/Karare. I conclude that conditions are worse for Ariaal females as a result of sedentism. The majority of Ariaal women are burdened with much of the household food provisioning costs as well as other family expenditures. They maintain heavier workloads and struggle daily with decreased firewood availability as well as reduced cattle milk productivity due to land degradation

and restricted mobility of herds. Data also indicate that there is increased incidence of spousal neglect/abuse and/or disruption in households due to alcohol misuse by Ariaal males. In the Kijiji settlements, I observed and talked with women who were exhausted, sick and, as a result, bitterly confused. Their household provisioning burdens had increased, they received little or no financial support from husbands, there was virtually no water, and food aid, which they previously relied upon, had recently ceased. In the Samburu Kijiji settlement, women struggled with disease factors as well (i.e. chronic eye and ear infections) and were hard pressed to meet costs for medical care of the ill. Transportation of the sick to the medical dispensary in Karare was problematic and although one of the duties of the Karare-based public health nurse was to visit Kijiji with medical supplies on a regular basis, this proved to be a sporadic event, again because of transport difficulties.

Drought-induced livestock loss, low milk supplies and men's general disapproval of milk sales have reduced some Ariaal women's milk managing duties to clandestine activities. Apart from the complex factors involved in the secrecy of women's milk sales and savings, the need for secrecy in itself is a growing indication of the breakdown in traditional usufruct rights of Ariaal women. These traditional rights gave pastoral women access to milking livestock and entitled them to manage household milk supplies (Dahl 1987; Fratkin 1991; Joekes and Pointing 1991; Michael 1987; Talle 1987, 1988; Wienpahl 1984).

Due to livestock depletion, men can no longer guarantee their wives sufficient milking stock and thus fall short in their obligation to provide women with access to milk

for family nutrition. Women are thus required to sell milk to earn cash to purchase household food. Hence Ariaal men and women are caught in a bind. Disputes over milk-use arise between Ariaal husbands and wives, but unlike the spousal disagreements over human *versus* calf nutritional needs which Talle (1988) and Wienpahl (1984) emphasize, Ariaal conflicts relate to men's concerns over children's needs for milk consumption *versus* women's milk requirements for sales.

In reality, current milk sales are necessary for children's survival and it is difficult to conceive how men could remain unaware of this fact. In most Ariaal households, daily milk offtake is insufficient to meet family nutritional needs and maize is purchased *in lieu* of milk because of its high caloric content and the favourable terms of trade. I conclude that Ariaal males express their disapproval primarily because milk marketing is an open statement of their inability to provide for household milking and/or provisioning needs. Secrecy and/or deceptive tactics in milk sales are devices which allow Ariaal women to simultaneously maintain their income, while saving male face. Given the small size of settlements and placement of market locales, I suspect that husbands are fully aware of women's marketing activities at all times and express their disapproval more in pretence, knowing that this will encourage women to continue the facade of 'secrecy' in sales. In the case of the Ariaal, I assess that the 'dance of secrecy' is employed to maintain the 'public myth of male dominance' (Rogers 1975), hiding not milk sales *per se*, but evidence that gender relations of production have changed.

Despite the foregoing conclusion, there is always the possibility as Joekes and Pointing (1991:16) mentioned, that men's perceptions are different than women's with

regard to household requirements. Ariaal husbands do not want women to sell milk, yet very few provide financial assistance or food contributions to the household. Three causal factors, or combinations thereof, could account for this behaviour. It could well be that men's coping mechanisms for Ariaal impoverishment include an element of denial about the realities of contemporary household needs, in which case they may be viewing the situation the way they wish it was, and not as it is. It could also be that women are receiving less financial support from men because of male speculation that women's milk earnings are sufficient to cover costs of household needs. Thirdly, it could be that men have no concept of household requirements as a result of conditioning *via* traditional gender arrangements in Ariaal division of labour.

Traditionally, a pastoral male remains outside the domestic sphere of household activity. He fulfils his labour obligation to society during his *murran* years and once married, he becomes an elder, whose role is to council settlement members and manage the household herd. If women have traditionally been the food provisioners who take full responsibility for child care, and men have remained outside the domestic sphere of household operation, it is conceivable that married males have no idea what household requirements entail. Many Ariaal women had difficulty obtaining financial assistance from men, just as Joekes and Pointing (1991) noted for Maasai women. Future research should investigate the possibility that there are perception differences between genders in this area. What is currently viewed as neglect/abuse from males may, in many cases, turn out to be a matter of inaccurate male perceptions, or assumptions arising from traditional conditioning of men.

Further evidence of shifting Ariaal gender relations, particularly within the context of cross-generational relationships, comes from RAP information which indicates the growing importance of daughters in contemporary Ariaal households, as well as increased importance placed on education for females. Overall, I sensed a general movement among Ariaal women to redefine women's position within Ariaal society and to gain more economic autonomy. This undercurrent was evident in the Karare-Kulapesa and Scheme areas, where female marketers demonstrated complete awareness of root problems perpetuating their economic dependence and showed overt interest in increasing female solidarity and organizing a women's co-operative group. Many of these women expressed the need, or the desire, for education in academic and birth-control related issues and were enthusiastically in favour of education for daughters as well.

Prior to field investigations, I speculated that Ariaal mother/daughter dyads would be extremely important because of the need for co-operative assistance with household chores. This relationship did prove to be important, but on the basis of women's perceptions that daughters offered them guaranteed care in later years. Women's general dissatisfaction with their relationships with sons came as a complete surprise, for this runs contrary to mainstream literature which emphasizes the importance of matrifiliation and mother/son(s) relationships in the "house-property complex" (Barfield 1993; Oboler 1996; Potash 1989; Rigby 1985; Talle 1988). The realm of mother/daughter *versus* mother/son relationships is one which warrants further investigation, as more information in this area may assist in neutralizing the androcentric analytical framework currently

ensconced in pastoralist studies.

As a final point in this section, just as Talle (1990) noted the symbolic importance of milk in Maasai society, I similarly assess that milk plays an important symbolic role in contemporary Samburu- and Rendille-speaking Ariaal ceremonies. This was an area of questioning where Ariaal women became expressive, yet touchingly reverent, in their affirmations of the continued ceremonial importance of milk, even under sedentary conditions. There was a marked difference in the types of ceremonies referred to by Samburu- and Rendille-speaking Ariaal, with the former concentrating on circumcision events and sacred places, and the latter on more formal and regularly scheduled rituals.

In the following section, findings on Ariaal women's economic activities are compared with data contained the five case studies presented in the literature review (Section 4.4). To reiterate, these studies, which involve the Maasai of Kenya-Tanzania, the Nigerian Fulani, the Hawazma (Baggara) of Sudan, and pastoralists of Somalia and Ethiopia, illustrate variations in pastoral women's milk marketing, as well as alternative income-generating activities.

9.3 Comparison of Ariaal Women's Marketing with Literature Case Studies

Ariaal - Maasai

Compared to the milk sales carried out by Ariaal women, milk marketing is more lucrative for Tanzanian Maasai and as a result, Maasai males have taken over sales. Production priorities in general are quite different between Maasai and Ariaal. Maasai

are less seriously affected by drought than Ariaal, which allows them to gear production heavily towards meat sales. In addition, tourism plays a major role in Maasai territory and economy, enabling Maasai women to make and sell craft items locally. Tourism is minimal in Marsabit District and should Ariaal women ever organize in co-operative craft production, successful monetary gains would require cost-effective manufacturing and marketing techniques as well as creativity. With the added costs involved for shipping items to Kenyan/Tanzanian tourist areas in the south, Ariaal handicrafts would have to be uniquely different from the Maasai's to compete with market prices.

Ariaal - Nigerian Fulani

Compared to Ariaal women, Fulani females of Central Nigeria seem more financially secure, as local Islamic law allows women to own and sell livestock and control proceeds from their sales. Further socio-economic differences between Ariaal and Fulani appear in the milk management realm. With the Fulani, it is men, not women, who do the milking and regulate allotments for household use and market sales. As far as milk sales are concerned, Fulani women sell a mixture of dairy products in a variety of places other than market sites, whereas Ariaal restrict sales to fresh milk and sell only in market locales. While both Ariaal and Fulani women experience seasonal fluctuations in milk income, Fulani do not have the seasonal fluctuation in milk offtake that Ariaal do. Ariaal milk income fluctuations are related to seasonal price differences and seasonal supply and demand shortages, whereas among the Fulani, fluctuation factors pertain more to women's small daily milk allotments which are controlled by men.

Similarities are such that both Ariaal and Fulani females enjoy the social benefits

of marketing and some have involved themselves in petty commodity sales as well. Both groups of women have expressed a desire for acquiring new income-generating skills, however. In a final point of comparison, cereals now form the staple foods for both Fulani and Ariaal, yet there are different causal factors involved in each dietary transition. Ariaal women purchase grains to ensure household survival, whereas cereals are bought by Fulani males to facilitate increased meat sales and market gains for men.

Ariaal - Hawazma (Baggara)

The Hawazma (Baggara) women of Sudan conduct milk sales under a transhumant pastoral system, which is dissimilar to the semi- and fully sedentary conditions experienced by Kijiji/Karare Ariaal females. In addition, the Hawazma women have marketed milk for a much longer period of time (since the 1930s) than Ariaal and their surplus milk sales are generally carried out with local cheesemakers. In the dry season, when milk supplies are low, many Hawazma women participate in house-to-house marketing, a practice not maintained by Ariaal women. Unlike sedentary Ariaal females, Hawazma women enjoy a great deal of freedom due to transhumant conditions and on the whole, experience less restrictions in their movements and/or visits with kin. The only similarity between these two groups is 'the public myth of male dominance' (Rogers 1975). Just as Hawazma women participate in the public myth that milk earnings belong to men, Ariaal women's secret milk sales promote the public myth of male dominance in relations of production.

Ariaal - Somalia Pastoralists

Similarities in milk marketing activities of Ariaal and Somalia pastoral females

appear in the strong seasonal and competitive characteristics of their sales. In addition, low income households of each society depend on dairy marketing for purchases of maize. Each group's marketing personnel and procedures, however, are quite different. Ariaal female marketers are generally married with children and their milk earnings contribute heavily to household expenditures. These women either sell milk themselves or participate in sales on a work-sharing, commissioned basis. The Somalia pastoral milk trade, on the other hand, is largely composed of female intermediate traders, or *abakaar*, as well as young single nomadic women, whose earnings are additional to household income and not the major source of it. Unlike Somalia traders and marketers, Ariaal women walk to market and have virtually no transportation costs *per se*, but their time investments are considerable. Furthermore, there is also no indication that Ariaal females compete with lower priced powdered milk sales by males.

Ariaal - Ethiopian Borana

Of all the case studies, the Ariaal situation in northern Kenya is most similar to that of the Borana in Ethiopia. Both groups live in semi-arid conditions and have similar arrangements as far as sedentary encampments and seasonal mobility of herds are concerned. Each society depends on the sale of livestock and derived products for income. Both have insufficient milk offtake for household food requirements and both are currently experiencing food shortages. Each society has some maize cultivation yet most people are required to purchase the bulk of their grain supplies. The majority of Ariaal and Borana households are poor, although Borana households appear slightly more affluent than Ariaal's, averaging 4 - 5 people, 20 cattle and several other livestock

species per household. Each group has developed the enterprise of female milk marketing.

Although my statistics are not as sophisticated as those of Holden *et al.* (1991) and Holden and Coppock (1992), familiarity with the Ariaal data does allow me to make the following observations. Similar to Borana findings, details for Ariaal also show marked interaction between household wealth and seasonal milk offtake. As with Borana females, the highest volume of milk was sold by Ariaal women during the rains, with sale volumes declining by 59% (Samburu Kijiji), 49% (Rendille Kijiji) and 59% (Karare-Kulapesa) in the dry season. For Borana, the decline was 89%, and given that Borana households average more TLUs/Person than Ariaal, this perhaps reflects the severity of environmental conditions. What Holden and Coppock (1992) do not address is the difference in women's seasonal prices per volume of milk, or total overall differences between dry/wet season income. My results show that Ariaal women sold a lower volume of milk in dry season than during the rains, but earned more money per volume of sale, resulting in higher total income gains in dry season sales.

The intricacies of Ariaal data make them difficult to compare with Holden and Coppock's (1992:42) distance/time assessment that women sold milk more frequently when they lived closer to market. Karare-Kulapesa women lived in closer proximity to Karare *soko* than Kijiji women did to Marsabit and spent more days/week at market than their Kijiji counterparts. Kijiji women however, participated in work-sharing and commissioned sales, and reported only the days they attended the market themselves, not the frequency of milk sales.

Overall assessment of Ariaal data supports Holden and Coppock's (1992:331) contention that the frequency of milk sales is more likely an indication of impoverished women's needs to make frequent purchases of "survival rations of grain." Ariaal data also support Holden and Coppock's (1992:332) warning that researchers should not assume pastoral milk sales involve only surplus milk above and beyond household nutritional needs. Just as poor Borana women consider all dry season milk offtake as surplus and sell the sum of it for grain, impoverished women from Kijiji/Karare are often forced to do the same.

Based upon my research with the Ariaal, I agree with Holden and Coppock's (1992) contention that dairy marketing among pastoralists is a response to increased livestock poverty. I disagree however with their forecast that Borana will place a heavier emphasis on dairy sales as herds decline and populations continue to grow (1992:332). Whether they are Borana or Ariaal, pastoralists cannot place a heavier emphasis on milk sales when their source of supply is declining. In situations where populations continue to grow and herd sizes decline, I think Malthus had a better edge on prediction.

In the conclusion, Chapter 10 summarizes the major thesis findings and recommends ways in which development and/or aid agencies could assist in improving Ariaal socio-economic conditions.

CHAPTER 10

CONCLUSION

In conclusion, I wish to briefly reiterate some of the major findings of the thesis, beginning with those contained in the literature review. Traditional pastoralism in East Africa was based upon livestock husbandry which required seasonal movement of populations and herds over large areas of land. This mobility was essential to the co-adaptive and interrelated functioning of the plant-animal-human food chain. Mobility allowed pastoralists to freely shift and co-manoeuvre within the spatial and temporal fluctuations of rain, move encampments and livestock away from areas infested with disease-carrying insects and/or parasites, and avoid raids by neighbouring tribes. In East Africa, many pastoralists relied on their animals for milk, not meat or market sales. Animals served as important links in socio-economic and political relationships, playing a pivotal role in cultural ideology, as well as in practical aspects of daily pastoral life.

The colonization of East Africa affected pastoral access to the three most needed resources for livestock maintenance - water, grazing land and labour. The creation of international and district boundaries, and the political move towards privatization and agricultural use of land disrupted wide networks of supportive social relationships, both within and between pastoral communities. Intertribal conflict over available water and grazing land increased, resulting in considerable shifting and/or displacement of pastoral societies. Over the years, lengthy sessions of drought and episodes of human and animal disease resulted in massive starvation and death, as well as serious desertification of the land.

Following Kenyan Independence (1963), pastoralist land access continued to dwindle due to increased government privatization of communal grazing lands and expansion of state-controlled national parks and game reserves. Anxious for full pastoral integration into the formal economy, the Kenyan government and Western development agencies encouraged pastoral societies to commercialize livestock production. Over the past fifteen years, low precipitation in northern Kenya resulted in continuous drought and subsequent loss of more than 50 percent of pastoral livestock, forcing many families to seek refuge and settle around permanently drilled water wells. Diminishing pastoral autonomy brought sedentarization, ensuing poverty and heavy reliance on income *via* the informal economy and/or wage labour. It also resulted in pastoral dependence on famine relief programmes and mission-based aid.

The 1980s and 1990s brought a surge of anthropological studies which examined the socio-economic and political problems of pastoralists within the context of drought, desertification, sedentarization and economic development. During initial investigations, it was noted that there was a dearth of information on the socio-economic roles and activities of pastoral women. This data deficiency was primarily attributed to the androcentric analytical framework heavily ensconced in pastoral-related studies. Subsequently, investigations of pastoral females revealed that women played a prominent role in pastoral relations of production and reproduction. Literature findings suggest that, despite the patrilineal paradigm which is pervasive at the community level, pastoral women hold discrete units of decision-making power at the household level. These fall into three principle realms - a woman's home, her position as 'milk manager' and

matrifiliation. The basis of a pastoral woman's autonomy is her house and a married woman generally owns, and is in charge of, her own home. Although the patrilineal principle excludes her from ownership of livestock, the "house-property complex" ensures a woman valuable usufruct privileges, allowing her access to certain animals and control over fresh milk and dairy products. In her capacity as milk manager, a woman holds considerable decision-making power regarding the economics and well-being of the household. Ultimately, it is she who balances the milk supply between family members and calves, and in this way mediates between the forces of livestock production and human and animal reproduction. The matrifiliation principle also places a pastoral woman in a mediating position and establishes her as transmitter of livestock inheritance rights from one generation to another.

Findings also demonstrate that pastoral women have a wide range of domestic duties, from child care to the milking of livestock, and in some cases, cultivation and care of household gardens. While researchers formerly defined herding as a male activity, recent investigations reveal that pastoral females are heavily involved in herding and raising of livestock. In addition, indications are that pastoral women by necessity, establish strong social ties with other females. These relationships facilitate cooperation and aid in domestic chores and are the basis of reciprocal food exchanges in times of hardship.

Long established patterns for women are changing rapidly, however, as pastoral household economies and whole communities become more fully integrated into the wider state and global political economies. Research into the effects of sedentism and

the changing economy upon pastoral women has just begun, but as data accumulate, findings are somewhat contradictory regarding the actual repercussions on women. Some suggested negative effects of sedentism include: the breakdown of traditional rights and obligations within societies; desertification of the land; decreased firewood availability; increased workloads of women; increased livestock deterioration; reduced milk supplies; increased household grain consumption; and reduced quality of child nutrition. Alternatively, some suggested positive effects of pastoral sedentarization in, or around towns include: improved access to medical and educational facilities; increased economic opportunities for women through dairy, produce and/or petty commodity sales and/or wage labour; regular purchase of household maize from women's earnings; and improvement in child nutrition.

The literature review also examined the contemporary income-generating activities of pastoral women, as well as African perceptions regarding gender responsibilities for household provisioning and expenditures. These latter studies indicate that, while income in West African matrilineal agricultural households has traditionally remained unpooled and women have always assumed responsibility for child food provisioning, the move towards a greater degree of economic "separateness" on the part of patrilocally-based women in East Africa is a relatively recent phenomenon. Structural adjustment programs, changing socio-economic conditions, high male unemployment and men's migration from rural to urban areas have increased poverty in rural East Africa and made women's 'informal' marketing activities the economic mainstay of many pastoral households.

The literature reveals that the earning activities of pastoral women are as diverse as the women themselves, and while many are compatible with child care and domestic chores, more often they are not, bringing extensive workloads for females and long hours of labour. One such labour-intensive activity is female milk marketing. While poverty may be the common impetus for most pastoral milk sales, the variations in marketing appear to be many. These are fully revealed in literature-based case studies on the Maasai of Kenya-Tanzania, the Fulani of Central Nigeria, the Hawazma (Baggara) of Sudan, pastoralists of Somalia, and the Borana of Ethiopia. Still other variations in female milk marketing are found among the Ariaal Rendille of Karare, Marsabit District, Northern Kenya.

The Ariaal Rendille are a camel, cattle and smallstock pastoral society of about 8,000 people who inhabit approximately 25 patrilineal settlements in western Marsabit District, north-central Kenya. The Ariaal Rendille community of Karare (population 2,000) is situated on the lower western slope of Mount Marsabit, 17 km downhill from the district capital of Marsabit. The community consists of traditional *manyattas* (clan-based settlements) scattered within a 10 km radius from the Karare centre. A proportion of the *manyattas* are composed of sedentary agro-pastoral Ariaal while the rest consist of either sedentary or semi-sedentary cattle pastoralists. Continuous drought, intertribal warfare, and loss of grazing land to a nearby national game preserve have restricted the mobility of community members, causing considerable reduction in cattle holdings of many. Resultant poverty has forced a large number of Ariaal women to enter the milk marketing trade. Milk sales are carried out in both Marsabit and Karare markets and

earnings are used by women to purchase household food.

Assessment of the current Ariaal transition to sedentism and the changes in Ariaal socio-economic and nutritional status have been ongoing for several years. It was within this context that I participated in 1995 fieldwork with the Ariaal of Karare and carried out two studies which are presented in detail. *The Ariaal Rendille Milk Marketing Study* was a quantitative investigation on the economic-specifics of Ariaal women's milk sales. Forty-eight Ariaal female marketers, representing three settlements, participated in the study: 19 from Samburu Kijiji; 15 from Rendille Kijiji; and 14 from Karare-Kulapesa. Field data were analyzed at the settlement level *via* the *Statistical Analysis Systems* (SAS) computer program. Results were presented in the thesis in a series of statistical tables with related discussions. In short, overall findings reveal that the majority of Ariaal milk marketers are married and reside with their husbands and children in settlements where household wealth is currently classified as 'poor' (<4.5 TLUs/Person) (Fratkin and Roth, 1990:394). More than 90% of all respondents lack any formal education, none possess English language skills and few maintain fluency in Swahili. Women from the predominantly Samburu-speaking settlements of Kijiji and Karare-Kulapesa have been involved in milk sales for approximately eight years, whereas Rendille-speaking Ariaal females of Kijiji have participated in milk marketing for less than one year.

For the most part, the remainder of results emphasize the different circumstances for milk marketers in each Ariaal settlement. For Samburu Kijiji, main findings reveal that these women recently moved to Kijiji from Karare to be closer to Marsabit for milk

sales. This sample demonstrated the lowest mean figures for household wealth, total milk offtake and women's annual income, with milk-based earnings representing 88% of the latter. In the Samburu Kijiji settlement, milk marketing arose as a direct result of extreme poverty and women's milk income is essential for household survival.

Findings for Rendille Kijiji marketers are somewhat different. Most women moved to Kijiji from settlements that are geographically closer to Marsabit market than Kijiji in order to access milking livestock stationed in the Kijiji area. In other words, Rendille-speaking Ariaal women moved to Kijiji to gain entry into milk sales. Results suggest that a major catalyst prompting women's migration and initiation of milk marketing activities could have been the 1994 cessation of Famine Relief food aid formerly received by many Rendille Kijiji households. In a comparison of settlement findings, results for Rendille Kijiji demonstrate that these women have the most milk offtake/day throughout the year, the highest dry season and net milk income per annum, as well as the highest total annual income. The data also suggest that demands placed on Rendille Kijiji women's milk income are not as high as in Samburu Kijiji and that these earnings assist, rather than totally facilitate, household survival.

The Karare-Kulapesa sample turned out to be the most diverse, in terms of women's marital status, linguistic abilities, earning activities and income. Karare-Kulapesa women elect to sell milk locally in Karare *soko* for less money per unit of measure than could be obtained at Marsabit market. Accordingly, their milk earnings are lower than those of the other samples. While alternative marketing activities provide a modicum of earnings from the sale of eggs, garden produce, tobacco, *miraa* or brew,

beading wire, red ochre and maize meal, milk marketing still remains the major source of income for Karare-Kulapesa females. Some results suggest that household demands placed on women's milk income are low, although other findings negate any indication that this represents the presence of women's economic autonomy. Unique in the findings for Karare-Kulapesa are indications of women's overt interest in attaining more economic autonomy and their recognition that this could best be achieved through co-operative organization, female solidarity and scholastic and birth-control education for women.

The Ariaal Rendille Group Questionnaire was a qualitative study aimed at understanding Ariaal women's perspectives regarding the effects of sedentism. Questions were administered during eight audio-taped focus group interviews. Each focus group contained an average of five Ariaal participants, who were either residents of Karare or the agro-pastoral settlement known as the Scheme. Data analysis methods included transcription of audio-tapes, colour coding and a 'cut and paste' technique for organizing/ amalgamating all group responses under recurrent themes/categorical headings. Content analysis was maintained at the community level. Results were presented in the thesis as an eleven-part series of qualitative descriptive/interpretive reports.

In brief, the results of *The Ariaal Rendille Group Questionnaire* facilitated deeper understanding of the psychological sufferings which Ariaal endured during the initial phases of sedentarization. Important understandings were also ascertained from women regarding the advantageous aspects of sedentism. Suggested advantages included: the acquisition of new knowledge and/or skills, such as farming, marketing, house construction and incorporation of new foods; community co-operation; more convenient

access to transportation and water; and the nearby location of educational, medical and religious facilities. Frequently cited disadvantages of sedentism revolved around the restricted movement of livestock and the Ariaal people themselves. These disadvantages included: breakdown in Ariaal social structure and/or separation of lineage and close family members; inability to move livestock to better salt-containing soils and/or waters, or finer grazing pastures; inability to move livestock away from tick infested areas; Ariaal vulnerabilities to enemy and/or wild animal attacks; and the inability of Ariaal to move away from conflict when disputes occur between closely-residing neighbours.

In addition, findings from focus groups revealed that on the whole, participants believed that milk should not be sold, as this depletes household supplies, deprives children and warriors of adequate nutrition, and lowers milk intake by nursing calves. Realities are such however, that Ariaal women need to market milk to earn cash for food purchases and other household expenditures. It was generally reported that husbands did not approve of their wives' milk sales and most marketers of the Karare-Scheme area devised strategies to keep spouses unaware of their sales and earnings. Despite husbands' disapproval of these activities, women reported that they personally considered milk marketing to be part of their household duties. On the whole, participants were of the opinion that milk was declining in importance as a dietary item, but claimed that it still played an important role in both Samburu- and Rendille-speaking Ariaal ceremonial rituals. Generally, access to dairy resources was considered to be more difficult in dry seasons but relatively easy in wet seasons, when milk productivity of cattle was higher.

Most females claimed that current conditions for Ariaal women were worse than

prior to sedentism. Heavier workloads, increased human disease, higher living expenses and more incidence of neglect and/or abuse by spouses all added up to more difficulties for women. When questioned on educational issues, most participants were highly in favour of education for daughters, claiming that an educated daughter, once gainfully employed, would look after her parents financially, whereas a son would not. Response to queries about possible alcohol-related problems in the community revealed that most Ariaal in the study believed there were many alcohol-related problems in Karare which they felt stemmed from the effects of settled conditions.

In my final assessment of Ariaal milk marketing and sedentary conditions for women, I noted the following:

- Socio-economic conditions for marketers of Kijiji and Karare are extremely poor, particularly in the settlement of Samburu Kijiji.
- Ariaal milk marketing is not a lucrative enterprise. In many cases, earnings barely facilitate household survival.
- Ariaal milk marketing is not based on the sale of surplus milk. Thus, marketing depletes household milk supplies.
- Current shortages of milk are such that even cessation of milk sales would not increase household milk supplies to levels sufficient to meet total daily nutritional needs of household members.
- Disadvantages of sedentism outweigh any advantages reaching Ariaal females. Conditions are worse for Ariaal women under sedentism due to women's increased workloads and lack of financial assistance from spouses for household expenditures.

- Secrecy in women's milk sales is an indication of breakdown in both Ariaal women's traditional usufruct rights and the fulfilment of men's traditional obligation to provide sufficient milking livestock to women.
- Secrecy in milk sales maintains the public myth of male dominance and hides not milk sales *per se*, but evidence that Ariaal gender relations of production have changed.
- Milk continues to play an important symbolic role in the ceremonial practices of both Samburu- and Rendille-speaking Ariaal within the Karare area.
- Daughters are of growing importance in contemporary Ariaal households and women favour education for females over males. Ariaal women believe that once a daughter is educated and gainfully employed, she will provide reliable care for her parents in later years, whereas a son will not.
- There is a growing movement among women to redefine their position within Ariaal society in terms of acquiring more economic autonomy. This was particularly evident in the Karare-Kulapesa and Scheme areas.
- A comparison of Ariaal with five pastoral-related case studies revealed that Ariaal's environmental conditions, socio-economic circumstances and milk marketing practices are most similar to those of the Borana of Ethiopia.
- Suggestions for future research include: investigation into male perceptions regarding the requirements and expenditures of Ariaal households; and studies on mother/ daughter dyads *versus* mother/son relationships.

The following are recommendations for development and/or aid agency personnel who currently sponsor, or plan to sponsor, projects in the Marsabit/ Karare area. In

addition, these recommendations have relevance for local health officials and mission-based personnel.

First, interim food aid should be re-instated to households located in the Samburu Kijiji settlement. These Ariaal families are hungry and many individuals are ill as well. Food assistance to Samburu Kijiji should be top priority.

Second, some sort of water provisioning service and/or device for rainwater harvesting is needed for Kijiji household members, as well as for those households situated in other remote Ariaal communities. In the Tharaka region of Kenya, *Save the Children Fund, Canada* currently sponsors a project which provides regional community households with large water storage containers. These containers are designed to collect rainwater during wet season, providing water storage and household access to clean water during both wet and dry seasons. Each container holds up to 3,000 litres, which is enough water to last a family of eight for approximately three months. Storage containers are marketed by the organization and funded by private sponsors at a cost of $269.00 Canadian per container. They have been successfully utilized in the Garba Tulla area of Kenya as well (Szwez, per. comm., 1997).

These containers are modernity's answer to rock and mortar water cisterns built in arid regions in ancient times. While studying in the Middle East several years ago, I observed contemporary bedouin of south Jordan retrieve rainwater from ancient Nabatean cisterns during the driest period of the year. In the wet season, rainwater is funnelled off local escarpments into ground-embedded cisterns via a system of channels carved into hillside rock. Bedouin use this water for their livestock during dry season

when there is no other available supply. I refer to these examples merely to illustrate how people in other arid regions have sought and found solutions to problems related to short water supply. With development assistance, the Ariaal of Kijiji will find their solution as well.

Third, I recommend that birth control education be provided for Ariaal women, particularly since they expressed a desire for this themselves. Given that one Kijiji midwife asked me to tell her which days were high risk for conception during a woman's monthly cycle, I think education of this sort would be beneficial for all concerned. Since the majority of women are unable to read, information would need to be transmitted orally, as well as through the use of visual pictorial aids.

My fourth recommendation is that both directive and financial assistance be given to Ariaal women of Karare to help with the formation of a women's co-operative work group. Women personally expressed the desire for such an organization, but admitted they were not sure how to establish it. When I spoke with marketers during interview sessions, their conversation often drifted to the topic of a women's work group. Several times, females pointed to a empty building located within the Karare core, claiming that it would make an excellent centre for women's craft production. Creativity and artistic sense abound in Karare and Ariaal females excel in beaded handiwork. If women were to build on this strength and design articles that were uniquely different to those presently sold in Kenyan tourist areas, I think they would succeed in their co-operative endeavour. For the ways and means of group organization, however, Ariaal women need and would like some sponsorship.

It is extremely important that women be given the encouragement and opportunity to seek and develop income-generating activities other than milk marketing, or the sale of brew. With respect to the latter, Ariaal women often complained that spouses spent money on alcohol and financially neglected their families, resulting in some women's sale of brew to obtain cash to buy household food. The problem becomes circuitous, as the making and selling of brew perpetuates women's difficulties in obtaining household financial support from men. A co-operative work group would assist female brewers to find an alternative method for earning income.

My fifth and final recommendation calls for creation of new policy regulations by development and foreign-aid institutions requiring agency personnel to obtain input from pastoral women before implementing programs/projects with pastoral groups. Karare females were deeply aware of the interconnecting factors behind women's current difficulties and were sensitive also to the quandaries of Ariaal men. Women understood the political, environmental, socio-economic and cultural issues at hand and were able to offer candid opinions regarding the prominent problems and needs of the Ariaal. In their case, development programs/projects could only be enhanced by obtaining input from women.

In closing, I again thank the Ariaal women of Kijiji and Karare for allowing me to investigate certain facets of their lives. Their tremendous inner strength will continue to inspire me, as well as those for whom they struggle on a daily basis. They are women of integrity whose strength feeds Ariaal Rendille today with hope for tomorrow. My greatest wish is that the findings in this thesis generate understandings which assist in the

improvement of conditions for Ariaal women and their families, as well as for other pastoral people in northern Kenya.

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APPENDIX A: ARIAAL RENDILLE MILK MARKETING STUDY

PROTOCOL

This study is authorized by the Office of the President, Republic of Kenya, through Research Authorization OP/13/001/19C 294/4, issued to Dr. Eric A. Roth, University of Victoria, British Columbia, Canada. The Kenyan sponsor is the Pastoral Information Network Programme, affiliated with the Department of Range Management at the University of Nairobi, Kabete Campus, Dr. Kassim Farah, Director. The project's goal is to investigate the milk marketing network from the area around Karare to Marsabit Town. All responses and information given will be strictly confidential. Your cooperation with this project is greatly appreciated. Thank you.

PART I. PERSONAL CHARACTERISTICS

Village Name _____ H/H Number_____

Respondent's Name _____ Date _____

Languages Spoken:

Rendille	Y	N
Samburu	Y	N
Swahili	Y	N
English	Y	N

Other _____

Have you ever been to school? Y N

If yes, where, when and for how long?_____

_____

How long have you lived here?_____

When and how did you come to live here?_____

_____

_____

Marital Status _____

If married: Husband's Age-set _____

Husband alive? Y N

Husband living here? Y N If no, where?_____

Co-wives? Y N

If yes, how many and what number are you?_____

_____

Children:

Have you ever had children? Y N

If yes, how many? Please record birth order, sex, education, residence and fate.

BIRTH ORDER	SEX M F	EVER RECEIVED EDUCATION Y N	PLACE OF RESIDENCE	LIVING Y N
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Is anyone else living in this household (e.g. foster children, orphans, grandparents, in-laws, friends)?_____

_____

_____

PART II. MILK MARKETING

1) Do you sell milk? Y N
If yes:
i) How long have you been selling milk? _____

ii) What kind of milk do you sell? CAMEL _____ CATTLE _____ GOAT ___

iii) Does the milk come from your own household animals? Y P N
If yes, or partially, please tell us:

a) How many animals your household now owns:

(C = CALVES; A = ADULTS)

SPECIES	C MALES A	C FEMALES A	TOTALS
CAMELS			
CATTLE			
SMALL STOCK			

b) How many calves did this herd have last year, and how many survived?
BORN _____ DIED _____

c) What units of measure do you use when referring to the amount of milk offtake from your herd?_____

d) How much milk do you take from this herd each day? _____

e) How much of this milk is used for:
Household subsistence _____
Feeding of calves _____
Marketing _____
Other _____
_____

iv) Do you receive milk from some other herd? Y N
If yes, please describe:
a) Herdowner _____

b) Relationship to you _____

c) Composition of other herd:

(C = CALVES; A = ADULTS)

SPECIES	C MALES A	C FEMALES A	TOTALS
CAMELS			
CATTLE			
SMALL STOCK			

d) How much milk do you receive from this source? _____

e) Is this milk:
a gift _____
traded to you _____
sold to you _____
other _____

If traded to you, what do you trade in exchange for it?
_____
_____

If purchased, how much do you pay for it? _____

f) Regardless of (e), how is this milk used?
Household subsistence _____
Feeding calves _____
Marketing _____
Other _____
_____

2) How often do you sell milk? _____

3) How much milk do you sell daily _____
weekly _____
monthly _____

4) Where do you sell milk? _____
_____

5) Do you always sell all the milk you take to market? Y N

If no:
i) Why not? _____
ii) What happens to the unsold milk?_____
_____

6) Do you have relatives in the Marsabit milk marketing trade? Y N

If yes, please identify and specify their relationship to you.
_____
_____

7) Do you ever give milk away? Y N

If yes, specify to whom, under what circumstances and the amount.
_____

Does this milk come from your herd or another? _____

8) Do you ever receive food items or commodities in exchange for milk?
Y N

If yes, please answer the following:
i) How often does this exchange occur?_____
ii) With whom do you make this exchange? _____
iii) What amount of milk is exchanged?_____
iv) Where does this exchange occur?_____
v) What type of food/goods are received by you_____
_____

PART III. TIME ALLOCATION

1) How much time per day does selling milk take up? Please tell us about a typical day selling milk, entailing everything from the time you wake up until you return home. _____

_____

_____

_____

_____

_____

_____

2) During a market day who:

cooks meals _____

takes care of children _____

buys food _____

washes clothes _____

3) Do you ever pay to have household chores done? Y N

If yes, who, how often and how much? _____

_____

4) How many hours per week do you spend in water/firewood collection?

_____

PART IV. CUSTOMERS AND COMPETITION

1) Do you have regular customers? Y N

If yes, how many? _____

2) How did you obtain your main customers? _____
_____

3) Are all your customers African? Y N

If no, who are they? _____

4) When do your customers pay for their milk? _____
_____

5) Is there competition for selling milk in Marsabit? Y N

If yes, competition for:
milk _____
customers _____

6) Who else sells milk in Marsabit Town? _____
_____

PART V. INCOME

1) What unit of measurement do you use to sell milk (e.g. calabash, cup, etc.)?
_____

2) What is the basic price of milk per unit? _____
_____

3) Does this price vary depending upon the customer? Y N
If yes, please explain _____
_____

4) Does this price vary with the season? Y N
If yes, please explain _____
_____

5) Do you ever buy milk and then re-sell it? Y N

6) How much money did you make the last time you sold milk? _____

7) Is this more, less or the usual amount of money? _____

8) How much do you earn from milk sales?
Daily _____
Weekly _____
Monthly _____

9) Does the amount of money earned vary:
i) Daily? Y N
If yes, specify why and how _____

ii) Weekly? Y N
If yes, specify why and how _____

iii) Monthly? Y N
If yes, specify why and how _____

iv) Seasonally? Y N
If yes, specify why and how _____

10) Did the recent drought affect your milk sales? Y N
If yes, please explain _____
_____
_____

11) What happens to the money earned from your milk sales?
i) Do you keep all of it? Y N
If yes, which of the following do you spend it on?
Food _____
Household expenses _____
School fees _____
Children's clothing _____
Self/husband's clothing _____
Rent/house building and repair _____
Medical expenses _____
Transportation _____
Livestock expenses _____
Bridewealth funds _____
Other _____

If money from milk sales is spent on food, please specify the type of food purchases _____
_____
_____

ii) Do you keep only part of this money? Y N
If yes, how much do you keep? _____
What do you spend your portion on?
Food _____
Household expenses _____
School fees _____
Children's clothing _____
Self/husband's clothing _____
Rent/house-building and repair _____
Medical expenses _____
Transportation _____
Livestock expenses _____
Bridewealth funds _____
Other _____

If money is spent on food, please specify the type of food purchases
_____
_____

Who do you give the rest to?

Husband	Y	N	Kin living elsewhere	Y	N
Trader	Y	N	Others (specify)	Y	N

_____

iii) If you give all your milk earnings away, to whom do you give it?

Husband	Y	N	Kin living elsewhere	Y	N
Trader	Y	N	Others (specify)	Y	N

_____

12) Do you earn other income? Y N

If yes, from what activity?

1) cash crops _____
2) subsistence crops _____
3) animals for market _____
4) animals for home consumption _____
5) wage labour (please specify) _____
6) other informal activities (i.e. crafts, beer brewing, selling firewood/water) (please specify)_____

13) How much money from the above do you earn?

1) daily _____
2) weekly _____
3) monthly _____

14) Does your husband give money for any/all of the following?

If yes, please indicate the proportional amount of his contributions.

1) Nothing = N
2) Less than half = < 1/2
3) Half = 1/2
4) More than half = > 1/2
5) Everything = E

Food _____
Household expenses _____
School fees _____
Children's clothes _____
Rent/house building and repair _____
Your clothes/his clothes _____
Livestock expenses _____
Medical expenses _____
Transportation _____
Bridewealth funds _____
Other _____

15) If your husband gives you money for expenditures, are there instructions for the use of this money? Y N
If yes, please describe_____
_____
_____

16) Do you receive cash from sources other than your husband and/or earning activities, i.e. other men, other women? Y N
If yes, please indicate the following:
Amount received _____
Name/relationship of donor _____

17) Does your husband make actual food purchases? Y N
If yes, what does he buy? Is this done on a regular basis?
_____
_____

18) Do you know how much money your husband/wife earns:
1) daily? _____
2) weekly? _____
3) monthly? _____

19) Do you know how your husband/wife spends his/her money? Y N

20) If you know how your husband/wife spends his/her money, do you pool your incomes and jointly plan your household expenditures? Y N
If no, who pays for what and how do you decide upon this?
_____
_____

21) Are expenditure responsibilities in your household flexible?
_____

22) Is it a traditional obligation for women (not men) to provide food for their children (i.e. to ensure that food is available for children via subsistence production or the earning of cash for food purchases)? Y N

If yes, does this tradition continue today? Please explain why or why not?
_____
_____
_____

23) What are the major problems for women in your settlement?

_____
_____
_____

24) In your opinion, is abuse of alcohol a problem in your settlement?

_____
_____
_____

APPENDIX B: ARIAAL RENDILLE GROUP QUESTIONNAIRE

1. In your opinion, what are the advantages of sedentism?

2. What are the disadvantages of sedentism?

3. What is your opinion of female milk marketing? What is good about it? What is bad about it? Why?

4. What does your spouse think about female milk marketing? What does he like? What does he not like?

5. Is milk marketing an extension of your household responsibilities?

6. Is the role of milk increasing/decreasing in importance as a dietary item and/or in its use in customary practices?

7. Is it becoming more difficult or easier to gain access to dairy resources? Why?

8. Do you feel that conditions are better/worse for women now than they used to be? Please explain.

9. What are your feelings regarding education for your daughters?

10. If you had to choose between educating a boy or a girl which would you choose? Why?

11. In your opinion, are there alcohol-related problems in Karare which could be related to the effects of sedentism? Please explain.

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