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Gender and Livestock in African Production Systems: An Introduction

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Since the 1970s, the study of gender relations and labor and resource use in different production systems has become an important subject of inquiry. While there has been recent interest in gender and livestock issues in pastoral societies, most of the work on gender and agriculture to date has focused primarily upon the role of women in crop production, to the virtual exclusion of the contributions women, children, and the elderly make to the livestock component of the farming system. The topic of gender (broadly defined to include age and sex criteria) and livestock management was addressed at a session at the 1992 Annual Meetings of the American Anthropological Association entitled, "Gender and Livestock in African Production Systems," the contributions to which form the basis of the present volume. Topics presented in the papers include: a conceptual framework for investigation of gender and livestock production and disease control, responsibility for productive tasks, livestock ownership and rights to livestock products, and impacts of and responses to change. Nearly all papers in the volume argue explicitly or implicitly for the need to include gender considerations in the planning of livestock development programs, thereby rendering the collection of interest to both scientits and policymakers.

KEY WORDS: gender issues; livestock production systems; sub-Saharan Africa.

INTRODUCTION

Since the 1970s, anthropoligsts and other social scientists have devoted considerable attention, both theoretical and practical, to the relationship between gender and a variety of social issues, among them gender aspects of labor use and resource control in various types of subsistence

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systems. Feminist scholars have produced a rich and extensive body of literature on the sociocultural and economic construction of women's roles, and of the subordination of women. Morgen's (1989) review of gender and anthropology traces three major streams of feminist scholarship: the social or cultural construction of gender in the tradition of Rosaldo and Lamphere (1974), the historical construction of gender in the tradition of Reiter (1975), Sacks (1979), and Etienne and Leacock (1980), and the comparative study of variables affecting women's status, as in the work of Freidl (1975), Martin and Voorhies (1975), and Sanday (1981). A number of the earlier studies, such as Draper's (1975) among the !Kung San, focused upon women's roles and status in egalitarian societies which practice foraging. More recent papers addressing issues in feminist research methods can be found in the volume edited by Nielsen (1990).

Most of the existing analyses of gender issues relating to livestock production can be found in the literature on pastoral societies. Although Jowkar and Horowitz have argued that, "Pastoral studies and development have almost exclusively emphasized male activities, particularly jural responsibility for herd management . . . far less attention has been paid to women's activities . . ." (1991, p. viii), the volume edited by Dahl (1987) contains a number of analyses of the place of women in pastoral production. For Dahl, pastoral production is," . . . double-sided in the sense that it involves both a production of utilities and a continuous reproduction of livestock as a means of production" (1987, p. 257). Women make important contributions to both the physical reproduction of the herd and the social reproduction of the links between people and animals. They are often responsible for caring, sheltering, and nuturing stock, especially pregnant cows and calves, kept close to the campsite. Such work may be the most labor-intensive part of livestock production in arid areas (Dahl, 1987, p. 252). The role of women as childbearer and their responsibility for the domestic sphere of work contribute to the reproduction of labor for pastoral production.

Despite these important contributions to livestock production, women's status in pastoral societies is usually inferior to that of men. Women's labor is associated with the domestic sphere and is often undervalued when compared to male responsibilities for planning and administering the animal care and livestock transactions. In most pastoral societies, men control livestock through their jural property rights to allocate or dispose of animals as individuals or members of kin groups. Although they may not explicitly exclude women from owning or disposing of livestock, such systems of property rights," . . . are at least clearly biased against," women (Dahl, 1987, p. 261). Under these circumstances, commercialization of livestock production, Dahl argues, may transform women's work into

commodity production and effectively limit women's control over livestock and livestock products. However, as Ensminger (1987) points out, such impacts may be felt differentially by women coming from different socioeconomic classes of the same society.

In agararian studies, there has been considerable awareness of women as "invisible farmers" (Sachs, 1983). Using examples taken from crop production in developing countries, Sachs has argued that, "women's control of agricultural production is tied to their access to land," (1983, p. 121). According to Sachs, this control has been eroded in many instances by agricultural policies which favored male farmers in promoting the production of cash crops for export and in transferring to other countries a male-biased agriculture which itself was based on erroneous assumptions about women's role in U.S. agriculture (1983, p. 126). Sachs concluded that:

> The work women perform and their status are defined through an interplay of the indigenous society and patterns of colonization or integration into the world system . . . Development programs, which assume that women's work is peripheral, have often failed to see the centrality of women's work in local economies . . . developers recognize women as reproducers but ignore them as producers (Sachs, 1983, p. 120).

As Sachs and others were constructing their critiques of male bias in agrarian studies and agricultural development, attempts were being made to incorporate gender concerns into studies of agricultural households. While interest in the relationship between household demography and farm production levels can be traced back at least to Chayanov's theory of peasant household differentiation,[2] recent studies in Africa and elsewhere have begun to examine differential access to and control over productive means *within* as well as between households. Guyer (1986), for example, has shown that for households in southern Nigeria there is no single unit of farm production since different social units within the household perform different productive tasks. Behnke and Kervin (1983) have offered similar arguments for the need to look inside the household in their critique of the concept of "recommendation domains" in farming systems research. In their recent book on gender analysis in agriculture, Feldstein and Poats (1989) attribute

[2]A central feature of Chayanov's theory of peasant economy was the influence of family size and structure upon household economic behavior. Formulated in the 1920s, the theory enjoyed renewed interest among Anglophone scholars of peasant societies with its translation from Russian into English in the 1960s (Thorner *et al.*, 1966), and its use by Sahlins (1972) and others (e.g., Minge-Kalman, 1977; Durrenberger, 1984) to analyze a variety of rural economies. For a useful summary of the main points of Chayanov's theory, see Ellis (1988) on peasant economics and Low's (1986) book on agricultural development in Southern Africa. Tannenbaum's chapter in the Durrenberger (1984) volume evaluates Chayanov's theory in the context of economic anthropology and Marxist critiques.

the origins of this growing interest in gender in agriculture to the pioneering work of Esther Boserup (1970). Subsequent work has:

> . . . focused on women's importance as household producers and providers in addition to their more commonly known domestic and reproductive roles. Evidence mounted that women were active producers . . . and . . . central figures in the low-resource households that were the focus of FSR/E efforts (Feldstein and Poats, 1989, p. 2).

Farm households, the units of analysis in many orthodox farm management studies and farming systems research projects, can no longer reasonably be considered a corporate "black box" making allocative decisions and adopting new technology to maximize its marginal revenues. Recognition of the differences internal to the farm household *vis á vis* gender roles in production has, in great measure, opened up this "black box" and challenged those who would improve the welfare of resource-limited farmers via technical innovations to incorporate such differences into their technology packages. Feldstein and Poats, and the other contributors to their volume provide numerous theoretical and empirical examples of how gender issues are being incorporated into crop-based agricultural development projects.[3] Studies such as these have prompted many agricultural researchers and policy makers to develop an awareness that, "women are major contributors to development and that male-dominated institutions have produced male-biased programs," of agricultural development (Collinson, 1989, p. xiv).

The same, however, cannot be said for studies of gender and livestock production in mixed farming systems. As noted above, much of the interest in gender and agriculture has focused on the role of women in crop production to the virtual exclusion of consideration of women's contributions to livestock production in these systems. Notable exceptions to this include the study of agro-pastoral Fulani women in northern Nigeria by Waters-Bayer (1986), the work of Okali and Sumberg (1986) on women and small ruminant production in the subhumid areas of southern Nigeria, the analysis of household management in Botswana by Peters (1986), and Spring's (1986) study of male and female smallholder farmers in a stall feeding program in Malawi. Most of this work has focused on male–female differences in patterns of labor allocation and resource use and control,

[3]See Feldstein *et al.* (1989) for a discussion of the gender variable in agriculture. Poats (1991) documents the efforts of the centers belonging to the Consultative Group on International Agricultural Research (CGIAR) to incorporate gender into their research programs. In addition to the case study chapters in Feldstein and Poats, several works provide examples of the incorporation of gender issues into specific agricultural development (especially farming systems research) projects. These include chapters in the volume edited by Poats *et al.* (1988), and the some of the chapters in the volume by Moock (1986).

with little consideration of household members in other age-sex categories. As with pastoral systems, an understanding of the relationship between gender and livestock production in agrarian systems will require that the following questions be addressed:

- How are important labor tasks for animal production and care allocated to household members belonging to socially-constructed gender (age-sex) categories?
- What are the relative contributions individuals from these categories make to livestock production?
- In terms of the system of property rights, which age-sex groups in the household and the community have control over the allocation and disposition of livestock and livestock products, and who benefits from this control?
- How are these gender-mediated relations of production, exchange, and resource use likely to be transformed as a result of agricultural (especially livestock) intensification and other socioeconomic processes of change?

It is important that we understand this relationship and its dynamics in both pastoral and mixed farming production systems. To this end, a paper session on gender and livestock in African production systems was organized and presented to the 1992 Annual Meetings of the American Anthroplogical Association in San Francisco. Five of the papers in this issue of *Human Ecology* were presented in that session. All are drawn from recent work among agricultural and pastoral societies in Kenya and present examples of livestock production systems undergoing various processes of transformation. In Rift Valley Province, Kalenjin-speaking farmers discussed in the papers by Oboler, Huss-Ashmore, Curry *et al.*, and Roberts have had a long tradition of cattle-keeping. Recently, they have intensified milk production by replacement of traditional zebu cattle with exotic European purebred or crossbed animals. While more productive than zebu cattle, the latter are more susceptable to diseases which affect productivity. Many Mijikenda groups in the more humid areas of Coast Province described in the paper of Mullins *et al.* abandoned cattle-rearing long ago, due to raiding from other groups (Spear, 1978). Exotic cattle breeds have been recently introduced to farmers at the Kenya Coast as part of intensive dairy production packages to serve as a supplement to, or substitute for, traditional cattle-under-coconuts husbandry systems. These new packages are based on stall feeding of cattle and growing of fodder crops, thereby altering both cropping and labor patterns in household farming systems.

FRAMEWORKS, THEMES, AND ISSUES

The papers in this collection explore various relationships between gender and livestock production and control. Curry *et al.* examine gender-related aspects of livestock production and disease control using a framework based upon one developed by Feldstein and Poats (1989) for gender analysis in farming systems research and extension. This framework goes beyond such simplistic notions of gender in agriculture as the sexual division of farm labor or the constraints faced by male-headed *vs.* female-headed households by making both age *and* sex important criteria in formulating gender categories. Central questions revolve around: who in the household is responsible for production tasks (particularly animal husbandry and disease control), who controls essential resources, who has knowledge about livestock diseases and their control, who benefits from disease control and the resulting productive outcomes, and who is (or should be) included in disease control programs and how are they included. They illustrate their framework using data from a commercial dairying area in the highlands of Kenya in order to determine what gender aspects need to be considered when designing livestock disease control programs.

The framework proposed by Curry *et al.* can serve as a convenient organizational device for the themes which emerge from the papers in the collection. Several papers in the collection address issues of labor allocation and task responsibility (i.e., who does what) for livestock production systems undergoing increased commercialization. As household economies become more monetized and dependent upon on-farm and off-farm sources of income to meet cash needs, responsibility for supplying labor for livestock husbandry and other tasks may fall to women and other household members not traditionally allocated such tasks. For example, Roberts' detailed study of gender, time allocation, and decision-making patterns among the Keiyo in the Rift Valley in Kenya shows that women, young boys, and older men contribute most of the labor for livestock production. For Roberts, age, as well as sex, is an important gender consideration, a theme also found in the papers by Curry *et al.* and Huss-Ashmore. In Uasin Gishu District, another Kalejin-speaking area in Kenya, primary responsibility for livestock care falls to adult women and older men. Consequently, these members of the household are well-placed, Curry *et al.* argue, to diagnose illness and do something about treatment. Responsibility for animal health care, however, falls to adult men, as it is they who "own" the cattle in the family herd, oversee the dipping of animals to control tick-borne diseases, and have the most contact with government veterinarians and animal health care assistants. Mullins *et al.* found in their study of households participating in intensive dairy programs at the Kenya Coast that women performed

40% of the work in the dairy unit. For female-managed units, this increased to near total responsibility for about half the activities associated with the dairy enterprise. In addition, women's responsibility for cropping tasks (i.e., planting, weeding, and harvesting) increased as a result of shifts in the cropping pattern to accommodate fodder crops.

Another theme that occurs in several of the papers is that of control over livestock and livestock products. Oboler's paper focuses on the complexities of "ownership," i.e., rights to cattle and to the products resulting from livestock production. Among the Nandi, the strong public ideology of male control of cattle is belied by the actual rights in cattle that women have under certain circumstances. The complexity of this system of rights in cattle in an evolving commercial dairying situation, as is the case in Nandi District, should alert researchers to the necessity of examining critically data on cattle ownership obtained from rapid appraisals and single-visit surveys. Such data, while perhaps eliciting the public ideology of cattle ownership from farmers, may well fail to capture the actual subtleties of ownership and control over livestock resources of the sort detailed in Oboler's analysis.

The papers by Roberts, Curry *et al.,* and Huss-Ashmore on Kalenjin groups and that of Mullins *et al.* for Mijikenda farmers also address this theme of the complexities of gender-mediated rights to and control over livestock and livestock products in terms of decisions about milk disposal. Roberts describes adult women as actively involved in decisions concerning milk marketing. In Uasin Gishu, while there is some variation among households in terms of who decides what to do with the morning and evening milk, morning milk, which was traditionally allocated to the males of the household, is generally the milk sold to the local creamery, while the evening milk under the control of women is reserved for household consumption. In this system, income from the morning milk generally goes to males and has implications for both women's control of income and household nutrition. By contrast, Mullins *et al.* report that on nearly two-third of farms in their study, milk was marketed by either women or children. On most farms, women took receipt of dairy income and had exclusive control of expenditure in over half the cases. Absence of males due to high off-farm employment meant that many dairy units in the sample were operated by females. Performance of male- and female-operated units was comparable.

Given gender-based differences in responsibility for productive tasks and access to and control over resources, the possibility of gender-based differences in indigenous knowledge between men and women might be expected. This issue is investigated by Curry *et al.* in their paper on livestock disease control in Uasin Gishu District. Their data suggest that both men

and women livestock keepers in the district possess considerable local knowledge of livestock disease. This is evidenced by the extensive local lexicon they share of terms describing animal ill-health, and the information on clinical signs, disease etiology, and frequency of occurrence which these terms symbolize. While men and women rely on the veterinarian or local animal health assistant to diagnose and treat animals in cases of serious illness, many of the older men in the study sample are quite knowledgeable about, and capable of employing, traditional methods of treatment.

The issue of the nature of how changes in subsistence patterns and in livestock production in particular affect individuals belonging to different gender categories is analyzed in several papers. These impacts can include changes in patterns and levels of income, food consumption, and nutritional status. Huss-Ashmore in her paper on livestock, nutrition, and resource control among farmers in Uasin Gishu District explicitly states the theme of concurrent positive and negative impacts of change. She found considerable differences among households according to farm size and scale of operation regarding their reliance on livestock, control over livestock resources, and consumption of livestock and dairy products. Members of large-scale commercial dairy farm households produce and consume considerably larger amounts of livestock products than do members of households with smaller farms. Control over livestock products, particularly milk, changes with increasing scale, with males having greater control over milk and its disposition on the large-scale farms. This increased control of milk revenues by men with increasing scale of commercialization, Huss-Ashmore argues, portends an erosion of women's control over this resource, in a manner similar to the situation that has occurred among the Nandi as reported by Oboler in her paper in this volume and elsewhere (Oboler, 1985). Huss-Ashmore concludes that there is the possibility for both positive and negative impacts of commercial livestock production, and that decision makers should consider these impacts upon intrahousehold dynamics and family health when planning livestock development programs.

While there may be differing impacts by gender in terms of food consumption, nutritional status, and income from sales of livestock products, Huss-Ashmore's findings suggest that such impacts will also vary according to other social dimensions in addition to gender. Thus, women and children from households belonging to differing socioeconomic classes (here measured by differences in farm-scale) can be expected to experience differentially income and consumption impacts of commercialization. Huss-Ashmore's analysis suggests that class and other socio-economic factors play an important part in shaping gender experience, and avoids what Ensminger calls, ". . . the tendency to assume that economic and political change affects all women equally within a given society" (1987, p. 29). Such

a conclusion provides an intriguing juxtaposition to those of feminist political economists who seek to demonstrate, ". . . the gender specificity of class experience . . . and the intersection of gender- and class-based stratification and inequality" (Morgen, 1989, p. 7).

A final theme to emerge from the papers is the need to consider gender as a factor in planned change, especially in the areas of agricultural development and natural resource management. Based on his findings that adult women contribute significantly to livestock production and marketing, Roberts concludes that livestock sector development programs should consider empowering women legally in order to provide them with production incentives. Curry *et al.* argue that animal health care programs in Uasin Gishu District would be improved if efforts were made to augment the knowledge-base and improve the diagnostic skills of adult women and older men, the persons responsible for much of the livestock care. A thorough understanding of the class- and gender-mediated complexities of cattle ownership and control over milk such as those described by Oboler and Huss-Ashmore for Kalenjin-speaking populations is essential for the design of effective, and equitable, smallholder dairy programs. A recent report on the dairy sector in sub-Saharan Africa has noted that, "Milk sales could, in many instances, provide a regular year-round cash income for women and dairying a suitable income-generating activity for female-headed households" (Walshe *et al.,* 1991, p. 22). The paper by Mullins *et al.* explicitly investigates this issue. Their findings demonstrate that women are potentially capable and successful managers of small-scale, intensive dairy operations, given adequate access to the necessary resources and control over management decisions. Small-scale commercial dairying activities targeted at women might therefore realize significant, positive impacts on the nutritional status of smallholder households, since, as Huss-Ashmore in this volume and Frankenberger (1985) elsewhere have pointed out, women's income is more likely to be spent on household food purchases than is other income.

These examples illustrate that many of the findings reported by the contributors to this volume have potential policy implications for the design and implementation of improved livestock development programs for smallholder agriculturalists and pastoralists in sub-Saharan Africa. In noting the bias against women in Africa in respect to access to (crop) extension information and other factors of production, Gordon Weil has recently observed that:

> It is ironic, or more accurately a reflection of gender relations, that in a continent on which women bear so much responsibility for growing food, they receive so little help in improving their husbandry. The immediate impact of this bias . . . is that women's income and security are less than they might be. But more than this, given

> women's crucial role as food producers, everyone suffers. Gladwin and McMillan (1989) make the point that without women's contribution, there can be no turn around in Africa's food production in the realistic future (1992, pp. 54-55).

As the papers in this volume, especially Mullins *et al.*, so effectively illustrate, Weil's statement is no less true for the African livestock sector. In order for this sector to contribute its rightful share to alleviating the food crisis currently afflicting the continent (Mellor *et al.*, 1987; Huss-Ashmore, 1989; Winrock International, 1992), animal husbandry will of necessity need to be more productive. As many livestock production systems intensify, greater attention will therefore have to be paid to the needs and rights of those who are responsible for livestock production. Analyses of gender issues relating to livestock production of the sort offered by the contributors to this volume will, in addition to their scientific value, be of vital importance to livestock development in Africa for the remainder of this century and well into the next.

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