GENDER ROLES IN LIVESTOCK PRODUCTION: THE CASE OF TCHENZEMA WARD IN THE WESTERN ULUGUGURU HIGHLANDS - MOROGORO - TANZANIA

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ABSTRACT

The study was designed to determine livestock production relations by gender in a matrilineal society in Tchenzema Morogoro Tanzania. A structured questionnaire was used to collect data from a randomly selected sample of 200 households with equal numbers of men and women. Secondary data was obtained from literature. The data was compiled by using the D Base Programme and analysed using the Statistical Package for Social Sciences Programme. The study results showed that livestock husbandry tasks were shared between males and females of all ages. However males contributed slightly more labour than females in feeding, health care, cleaning shed and marketing. Decisions on task allocation and time for a task as well as livestock purchase, innovation adoption and marketing were jointly made by couples. There was no gender variation in the extension method preferred but both gender preferred demonstrations and extension officers visits over other methods. The least preferred extension method by both gender was institutional training. It is recommended that in order to improve livestock production in the area extension messages should be targeted to both gender using extension officers visits and demonstrations.

1. INTRODUCTION

Livestock production systems in developing countries are varied. They include nomadism ranching, intensive and mixed livestock and crop farming. The latter has evolved as a result of competition between crops and livestock for land use.

A review of the literature suggests that in livestock production systems, livestock husbandry tasks are shared between men and women but the extent of sharing varies from society to society. For example in Kilwa Masoko district south of Tanzania, men are responsible for goats and cattle while women are responsible for chicken and ducks (Feldestein, 1990, unpublished). Similarly in Bukoba men are responsible for livestock in general including stall feeding, milking, taking them out and feeding the calves. Women role includes cleaning the shed, spreading manure on coffee and plantain farms and looking after the calves.

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In Kilimanjaro region north Tanzania, the Chagga women and girls are involved with milking, shed cleaning, fodder harvesting and carrying it on the head to the animals which are zero grazed. They also supply water as well as bedding material to the animals. The role of men include cutting and chopping banana stems as well as fodder trees and transporting of fodder by car (Polomack, 1989). Establishment of fodder is done jointly by men and women, male children assist their fathers, while female children assist their mothers.

Elsewhere in Africa, the picture is not very different. In Egypt women build pens for poultry, milk livestock and process milk to cheese and butter. Marketing of the processed products is also done by women (Beshara, 1987). Harvesting of fodder and taking animals to the field are done jointly by men and women.

In a study on labour allocation in an intensive crop livestock farming system in Western Kenya, Conelly *et al.* (1987) concluded that the burden of managing livestock fell heavily on women and female children. Women contributed 40% of labour for day to day management of livestock and 70% for forage production. Men and male children contribution was very limited.

In Burkina Faso most households own cattle, sheep, goats and poultry. Small ruminants and poultry are owned by women but are taken care of mainly by children while cattle are herded by men, sons or contract herders (Nagy *et al.*, 1989).

Three livestock production systems are practised in Thailand: Integrated crops livestock on small farms; intensive poultry rearing and ranching. Women are concerned with rearing small ruminants and poultry while the care of cows and buffaloes are shared between men and women.

2. THE PROBLEM

There has been a wealth of information on gender roles since Ester Boserup published her ground breaking work "Womens Role in Economic Development" in 1970. However many of the studies have focussed on patrilineal societies. The few studies done on matrilineal societies such as Brain (1962) on the Kwere of Tanzania; Beidelman (1967), on matrilineal societies of Eastern Tanzania and Brain (1975), on the position of women in the Rural Settlement Schemes and others did not specifically focus on the gender roles in agriculture. This study was an attempt to bridge the gap by providing a quantitative analysis of the division of labour including decision making in livestock production in a matrilineal society. It is hoped that such an analysis will create awareness within

the extension system of the need to be gender sensitive in the development and dissemination of agricultural technologies including livestock production.

The specific objectives were to:

a) Determine the division of labour by gender and age in livestock husbandry,

b) Determine decision making by gender in livestock production, and

c) Determine the extension method preferred in dissemination of livestock technologies by gender.

3. DESCRIPTION OF THE STUDY AREA

The study was conducted in Tchenzema ward in Upper Mgeta on the Western slopes of the Uluguru mountains in Morogoro region. Upper Mgeta lies between the altitude of 1400 and 2000m above sea level and enjoys a temperate like climate with a bimodal rainfall pattern. October to December is the short rain season while March to May is the long rain season. Rainfall ranges from 1000 - 2000mm per annum depending on the altitude. The driest season is from July to August, which is at the same time the coolest season. Although the study area is only 45 kms from Mogorogo town, it takes about 2 hours by car and up to 4 hours by lorry, because of the difficult terrain and bad road conditions, which worsens during the rainy season.

The Western Uluguru Highlands is characterised by smallholdings due to the high population density of 250 inhabitants/km^2 (Paul 1988). Farming systems in the area include commercial crop production (vegetables, beans and temperate fruits); subsistence crop production (maize, beans, bananas and root crops). In livestock production systems, pigs, goats and poultry are common. Pigs are found in 63% of the households; it is the most consumed meat in the area. Eleven percent of the households keep goats and include local as well as exotic dairy goats. The exotic goats are stall fed and grazed only to a small extent on the road sides and on scattered patches of scrub and bush while the indigenous goats are mainly tethered. Exotic layer chickens have recently been introduced by the Faculty of Veterinary Medicine of the Sokoine University of Agriculture - Tanzania. The local chickens are free ranging. Manure from the chickens is used to maintain soil fertility and is applied mostly to vegetables.

The ward is dominated by the Luguru, one of the few matrilineal societies in Tanzania.

3.1 Matrilineal societies

In the matrilineal societies, inheritance and obligation revolve around the niece - uncle and nephew relationships rather than around the father - children relationships as in patrilineal societies (Stamp, 1990). In these societies, property is controlled and owned by women. Household economics are controlled by the wife who is also the custodian of all household income, which enables her to make household decisions. Daughters are considered more important than sons because they inherit family property and carry the name of the lineage. This contrasts with patrilineal societies where inheritance patterns give preference to male off-spring and the family name goes through the male line.

Matrilineal societies in Tanzania include, Zaramo, Kwere, Rufiji, Luguru, Kutu, Sagara, Vidunda, Ngulu, Zigua, Makua, Makonde and Mwera (Beidelman, 1967; Brain, 1962; Brain, 1975 and Swantz, 1985). In these societies the husband is his children's father but not related to them, in fact he belongs to a different clan. The maternal uncle has control over the children of his sister. The husband lives at the house of the wife's parents or builds his own close beside it and works for his in-laws. The matrilineal principles of property ownership and control of offspring provide women with power and independence vis-à-vis their husbands. This leads to high divorce rates because women can secure divorce and remarry very easily. Furthermore, schoolgirls from matrilineal families were found to be more assertive and more daring in terms of venturing in mainly male dominated fields (Broock-Utne & Possi, 1990). These characteristics of matrilineal societies are economic drawbacks because keeping the husband in a subservient position on the wife's family side reduces his economic dynamism consequently man sees no point of investing his time and labour in an area where he is not secure (Wembah-Rashid, 1978).

In the matrilineal societies of Quenchua Indians of Peru and Minang kabou of West Sumatra, women make many important decisions and critically influence their husbands views. Women authority increases with age and they hold important social and ceremonial roles (Bolin, 1990). In the Minang kabou society (the largest matrilineal society in the world) the women are responsible for all decisions regarding family economics. They manage and control the produce of the land and proceeds from the market or cottage industries. The children remain members of the mother clan for life and carry its name. All property stay within the lineage and is handed down from mother to daughter (Bolin, 1990).

Ignorance of matrilineal principles is likely to lead to difficulties during implementation of development projects. For example if a development project involves the growing of trees on ancestral land and is assigned to male heads of

households by extension, they may not be very eager to plant trees because they do not feel much secure on the land which belongs to the wife's clan. In extension meetings which are normally attended by men, it would not be useful to request men to make decisions on important issues before they have a chance to consult with their wives, who play a significant role in decision making as individuals and jointly with husbands.

Colonisation which brought about cash economy, education and religion to which men had more access than women, had weakened some of the characteristics of matrilineal societies. Education has provided men with the ability to make use of modern innovations reducing the possibilities of women to use the same. The negative attitude of the church towards high divorce rates which prevailed in matrilineal societies, have tended to encourage patriarchal practices because of the belief that they promote family stability (Brain, 1969).

4. METHODOLOGY OF THE STUDY

The study was conducted in Tchenzema ward on the western slopes of the Uluguru mountains. The ward is composed of five villages but data was collected on three of the five villages due to time and budgetary constraints. A cross sectional survey was conducted on a randomly selected sample of 200 farmers (equal number of men and women). A structured questionnaire was used to collect primary data while secondary data was obtained from the literature.

Respondents were asked to state the proportion of the task done in livestock production (whether ¼; ½; ¾ or 1). These proportions were compiled, converted to a percentage and compounded to one figure for each labour category. Five labour categories were set: Adult male and female (couple); male and female children of the couple; and "other" which included extended family, hired labour and "ubava" the traditional labour exchange system. These questions address the first objective of the study. To address the second objective participants were requested to indicate their participation in decision making in production, resource allocation, and income expenditure. Open-ended questions were used to request information on extension method preference.

The data were coded, compiled using the D Base computer programme and analysed, using the Statical Package for the Social Science Programme. The results are presented in graphical and tabular form.

5. RESULTS AND DISCUSSION

Livestock husbandry tasks included feeding, health care, grazing/tethering, milking, cleaning livestock shed, establishing pasture and marketing. Figure I shows percentage labour contribution in livestock tasks by gender. Men did a larger proportion of tasks namely; feeding, health care, cleaning shed and marketing. Male children also contributed more labour than females to these tasks with the exception of marketing. The remaining tasks were more or less equally shared between gender of all ages.

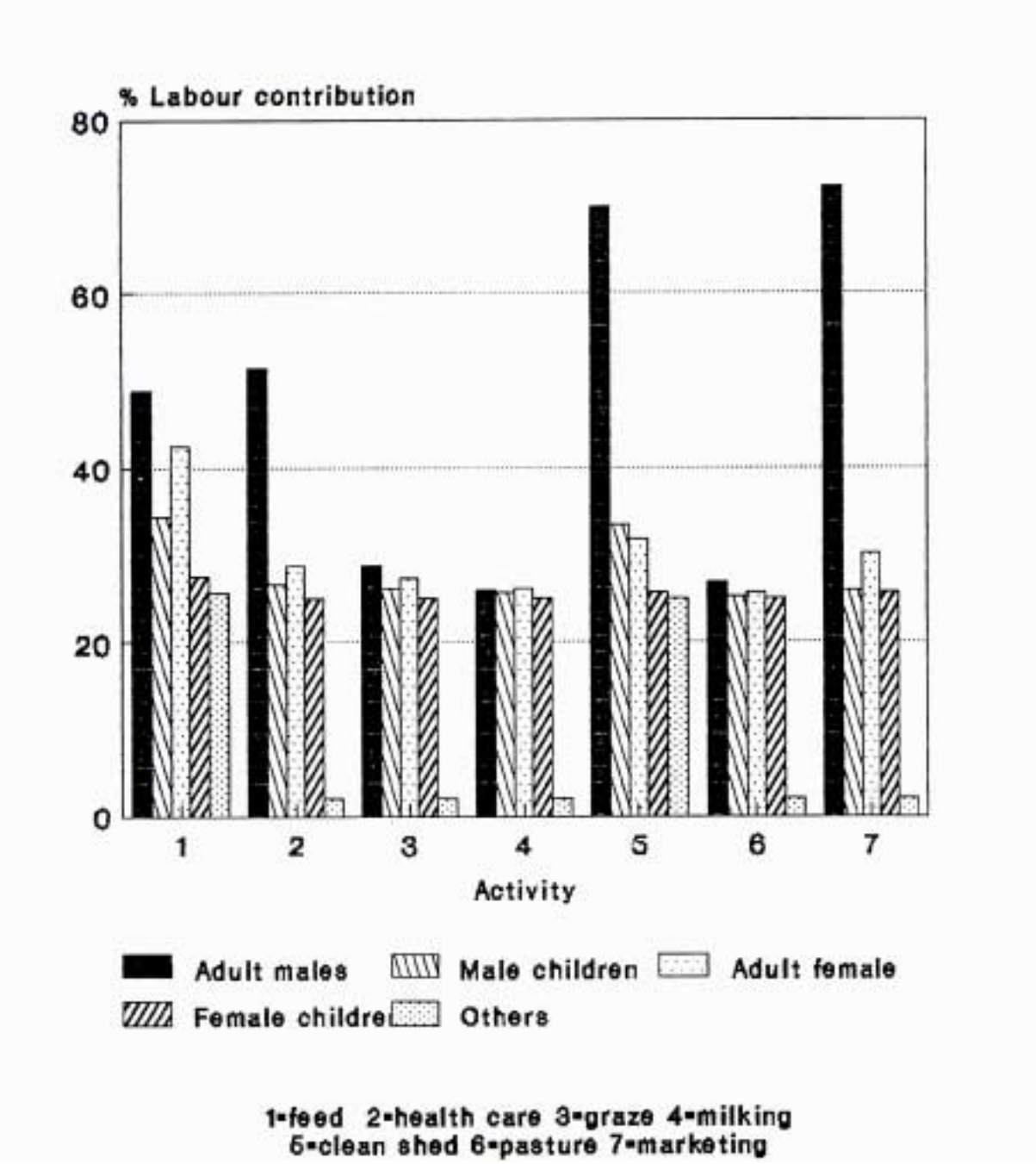

Figure 1: Division of labour in livestock production by gender

In Tchenzema, women perform practically all domestic work and a larger share of off farm income generating activities; thus they lack time to participate in livestock production. For example beer brewing, a time consuming activity is exclusively done by women. Tethering is a tedious task that requires moving the goats from the home to the roadside sometimes a kilometre or two away from home. Male goats are particularly difficult to handle by women. During market days, men travel up to ten kilometres with three to four goats joined together by ropes. Occasionally the goats may run to the bushes when they hear the noise of cars. While men may be able to run after the goats in the bushes, this would be difficult for women. Men have often been approached by extension and given information on different agricultural practices. Men for example apply fertiliser to the cash crops such as vegetables. Cleaning the barn involves removing the bedding and manure and taking them to the vegetable plots a task predominantly done by men.

The above results contradicts findings by Beshara (1987), Natpracha (1989) who observed that livestock husbandry tasks are shared equally between men and women and those of Spring (1986), Conelly *et al.* (1987) and Polomack (1989) which showed that in the societies studied livestock husbandry tasks were unequally shared between gender, the bigger burden lying on females of all ages. However this study results are in agreement with the observations by Nagy et al (1989) in Burkino Faso; Swartz (1985) in Bukoba Tanzania; Feldestein (1990) in Kilwa Masoko Tanzania that the burden of livestock management lies heavily on men.

5.1 Decision-making

Respondents were asked to state the person in the household with the final say in named aspects of livestock production. The responses are shown in Table 1.

Table 1: Decision making by gender in livestock production

Decision on:	Men (n = 100)	Women (n = 100)	Both (n = 200)
Task allocation	39	8	147
Livestock purchase	64	6	91
Hiring labour	81	8	79
Innovation adoption	84	8	100
Time for a task	38	10	147

The results show that decision on task allocation to family members such as livestock purchase; innovation adoption and time to do a task by family members

are made jointly between the couple. However the decision to hire labour is as much made by men alone as jointly between couple.

These results agree with the observations by Due & Mudenda (1982), Ashby (1989), Lassalle & Marquet (1991) and Senkondo (1992) that decision making is carried out jointly.

5.2 Extension method preference by gender

Respondents were asked to indicate their preferred extension method from a given list of methods. There was no limit to the number of methods that they could choose. The results are presented in Table 2**.** The use of demonstrations was the most popular method for both men and women followed by extension officer (EO) visits. EO visits and demonstrations were equally preferred by women. Institutional training was the least popular method for both men and women. Farmers are tied to their agricultural obligations and cannot afford to be away for a long time unless it is in the off season.

A demonstration plot was established by Sokoine University of Agriculture in one of the villages. In this plot different agronomic practices are demonstrated to farmers including soil conservation measures and pasture establishment. A livestock contest was also held in the area which required farmers to display their dairy goats to hundreds of enthusiastic farmers. Those whose dairy goats were found to be healthy and had triplets were highly rewarded. These memories were still fresh in farmers minds when this research was carried out.

It is surprising that women preferred EO visits although the officers are men. It is thus evident that the matrilineal heritages do not prohibit free interaction of unrelated members of the opposite sex.

Table 2: Extension method preference by gender (n = 100)

Method	Men	Women	Percent total
Demonstrations	85	73	81.0
EO visits	84	73	80.5
Meetings	81	65	74.9
Farmer exchange	76	65	72.3
Institutional training	74	57	67.2

Extension meetings are often organised at times that women cannot attend because of other domestic obligations. Meetings organised by male extension officers are attended mainly by men.

6. CONCLUSIONS AND RECOMMENDATIONS

Males of all ages contributed slightly more labour to livestock husbandry tasks than females; which is contrary to observations in other societies. This might mean that the introduction of livestock based development projects might mean more workload to males. However, livestock husbandry tasks are relatively of shorter duration. Decision-making is done jointly between couples. There was limited gender variation in extension method preferred. Of all the extension methods used institutional training was the least preferred by both gender.

6.1 Recommendations

For the livestock industry to prosper in Tchenzema, extension officers should deliver their messages to both genders using demonstrations and extension officers visits. These methods can be supported by meetings and occasionally by farmer exchange programmes. Extension programmes should be scheduled at times that do not conflict with women's domestic obligations.

REFERENCES

ASHBY, A.J., 1989. Production and consumption aspects of technology testing in Pescador, Columbia. In: Feldstein, H.S. and Poats, S.V. (eds) *Working together: Gender Analysis in Agriculture* Vol. 1 . Kumarian Press Connecticut pp 122-133.

BEIDELMAN, T.O., 1967. The matrilineal people of eastern Tanzania. In: Mascarenhas, O. and Mbilinyi, M. (eds.) (1983). *Women and development in Tanzania: Analytical Bibliography.* Scandinavian Institute of African Studies, Uppsala. p.87

BESHARA, A., 1987. The role of women in intergrated development in Egypt. In: Momsen, J.H. and Townsend, J. (eds.) *Geography of gender in the Third World.* Hutchson Education. UK. State UNY Press USA. pp.337-343

BRAIN, J.L., 1962. The Kwere of Eastern Province. In: Mascarenhas, O and Mbilinyi, M. (eds.) *(*1983*) Women and development in Tanzania: An Analytical Bibliography.* Scandinavian Institute of African Studies, Uppsala. p. 87.

BRAIN, J.L., 1969. Matrilineal descent and marital stability: A Tanzania case. In Mascarenhas, O and Mbilinyi, M. (1983*) Women and Development in Tanzania*: *An Analytical Bibliography*. Scandinavian Institute of African Studies, Uppsala. p.216.

BRAIN, J.C., 1975. The position of women in rural settlement schemes in Tanzania. In: Mascarenhas, O. and Mbilinyi, M. (eds.) (1983) *Women and Develoment in Tanzania: An Analytical Bibliography*. Scandinavian Institute of African Studies, Uppsala p.83.

BOLIN, I., 1990. *The hidden power of women: Peru Highlands and Western Sumatra compared:* Development and Cooperation Newsletter 1:12.

BROOCK-UTNE, B. & POSSI, M. (1990) *The expectations of some secondary school students in Tanzania concerning their future life, education and jobs*. Women and Education Report No 1. Dar-Es-Salaam.

CONELLY, W.T; MUKHEBI, A.W, OYUGI, L. & KNIPSCHEER, H.C., 1987. *Household labour allocation in an intensive crop/livestock farming system in Western Kenya*, Proceeding of the sixth Kenya Veterinary Association/Small Ruminants Collaborative Research Support Programme.

DUE, J.M. & MUDENDA, T., 1982. *Women's contribution to farming systems and household income in Zambia*. Illinois Agricultural Economics Staff Paper. Department of Agricultural Economics, University of Illinois, Urbana Illinois, USA, No 84 E - 285.

FELDESTEIN, H.S., 1990. *Food supply and consumption in Masoko District*: *A case study*. Paper presented to the symposium on household food security and the role of women. Sponsored by the World Bank, African Development Bank and the Government of Netherlands.

LASSALLE, T. & MARQUART, B., 1991. *Sharing the pumpkins soup: Some aspects of the Upper Mgeta rural community and their consequence on rural development*. A paper presented to the workshop on agricultural extension held in Dodoma Tanzania. 26 - 27 November 1991

NAGY, J.G., OHM, W.N. & SAWADOGO, S., 1989. Burkina Fasso: A case study of the Purdue University farming systems project. In: Feldestein, H.S. and Poats, S.V. (eds.*) Working together, Gender Analysis in Agriculture.* Vol 1. Kumarian Press Connecticut. pp. 75-97.

NATPRACHA, P., 1991. W*omen in livestock production in Thailand*. A paper presented to the Regional Office for Asia and Pacific (RAPA) FAO. Appropriate livestock technology for a Developing World No. 59.

PAUL, J.C., 1988. *Farming systems in the Upper Mgeta, in Morogoro district.* Franco - Tanzanian horticultural development project, Sokoine University of Agriculture, Morogoro.

POLOMACK, A., 1989. *Women and dairy development in Kilimanjaro region project.* French - Tanzania dairy development support to dairy development in Arusha and Kilimanjaro. Ministry of Agriculture Report. Dares Salaam.

SENKONDO, N.M.E., 1992. *Farming systems analysis of alternative agro forestry systems in Tanzania: The case analysis of Uluguru Mountain areas, Morogoro.* MSc Thesis (unpublished) Agricultural University *of* Norway.

SPRING, A., 1986. *Men and women small holder participants in stall feeder livestock program in Malawi.* Human Organisation, University of Florida. Florida U.S.A.

STAMP, P., 1990. *Technology, gender, and power in Africa*. Ottawa, IDRC

SWANTZ, M.L., 1985. *Women in development: A creative role denied? The case of Tanzania. ,* New Hurst and Co; London; St. Martins Press York.

WEMBAH - RASHID, J.A.R., 1978. The socio-economic system of Wakwere. An ethnographic study of a matrilineal people of Central Eastern Tanzania. In: Mascarenhas, O and Mbilinyi, M.(eds) (1983) *Women and development in Tanzania:an Analytical Bibliography* Scandinavian Institute of African Studies, Uppsala. pp 91-92.