

Gender and animal draught power: experiences of Palabana with small-scale farmers in Zambia

R. Mofya and N. Chisenga

Palabana Farm Power and Mechanization Centre, P/Bag 173 Woodlands, Lusaka, Zambia.

Abstract

The paper looks at gender approaches in the use of animal draught power (ADP). It is centered on the fact that the gender approach to any development recognizes roles played by both men and women considering their different interests and capabilities. Unlike the welfare approach that concentrates only on the reproductive role of women, the gender approach recognizes both reproductive and productive role. The paper discusses the role that women play in agricultural production and the potential for improvement in labour productivity for women farmers.

While encouraging ADP for women farmers would directly improve their labour productivity, this paper identifies some possible side effects or its implications. One critical issue is that encouraging women to use ADP could result in sharing the male activities, in addition to their already heavy workload. A review of some interventions by Palabana to address gender constraints in the use of ADP is highlighted this includes the question of whether implement manufacturers should design special implements for women.

Introduction

In Zambia, like many other countries in Africa, rural women continue to play an important role in agriculture. In Zambia, it is estimated that 90% of food production is produced by women farmers. Women farmers constitute 60% of the small scale farming community who commit 80% of their labour to subsistence food production (Tembo, 1997). This signifies the role women play in not only contributing to ensuring household food security but alleviation of poverty at national level. While rural women can be said to be the most hard working, they are not always the most efficient or effective. Women farmers generally work longer hours than male farmers but have less assets, almost no credit, fertilizer, high yielding seeds and limited technical support. Even in households where animal draught power (ADP) is used, it is usually for the 'male operated activities', thus side-lining the women activities which eventually have to be done by hand causing drudgery and wastage of time.

Various reasons, ranging from social, economic, and technical, relate to the low involvement of women in ADP technologies. The direct result is the low agricultural productivity of women, which in turn has serious consequences for their socio-economic status yielding a negative impact on food security and the alleviation of poverty.

Why the gender approach

The gender approach to any development recognizes both the reproductive (such as child bearing, child-care, food preparation and looking after the sick) and the productive roles of both men and women. To be

able to understand and acknowledge the different roles that men and women play in production as well as reproduction calls for gender sensitivity. Considering the fact that women carry out reproductive roles for physiological reasons and for some tasks due to culture, it becomes necessary to analyze their labour involvement in the production activities to be able to assess their workload and labour productivity. The objective is to ensure that, development activities being introduced or promoted in any given area do not lead to the overloading women, instead they should aim to make their work more efficient and productive. Studies carried out in many countries have shown that imbalances in gender have had some bad repercussions on production, distribution and consumption of food and have led to unsuccessful planning as planners have ended up concentrating on male farmers, while female farmers have been discriminated against (Tembo, 1997).

The roles that women play are different in any given society and their situation is determined by legislation, religious norms, the economic situation or class, cultural values, ethnicity and the types of productive activity of their country, community and household. Women are usually responsible for domestic work, the care of children, family health, cooking and providing food and other household services. In most societies, they also play a major role in the productive activities of the family, in farming, industries and other income-generating activities. In some societies they also have clear community responsibilities. There is however, a wide-gap between the women's high, yet unrecognized, economic participation and their low political and socio-economic status. Development strategies have

usually taken the needs of the most vocal and politically active as their starting point (Brett, 1991).

Invisible female farmers

The role and contributions of women to the economic welfare of the peasant family, remain a neglected topic in the analysis of agricultural production. Women are in many ways the invisible agricultural producers - invisible to developers and invisible to those who disseminate agricultural technologies such as ADP. Development programs and promotion of ADP technology are mostly directed at male farmers forgetting that, the majority of farmers are women (Sylwander *et. al.*, 1997).

The gravity of the above characteristic of the female labour force is further accentuated by the fact women are not an isolated group in society. Therefore, it is imperative that women effectively contribute and benefit fully from agricultural development and the dissemination of ADP technology.

Gender roles in use of ADP

Animal traction in Zambia has been in use for a long period of time especially in the western and southern provinces. In these areas, small-scale farmers have been able to own and cultivate relatively large areas compared to farmers elsewhere in the northern part of the country. Generally, in most small scale farming communities, ADP technology is to a large extent, limited to land preparation, mainly, ploughing. Consequently, the technology is limited to male farmers, who according to cultural-gender labour divisions are responsible for land preparation. (In Zambia, like most African societies, labour divisions are according to gender, relating them to many other factors such as the type of crops grown and the technology involved).

Therefore, despite the significant role that ADP continuous to play in smallholder farming systems, most women farmers do not use it. For such reasons, women take up operations such as planting, weeding and harvesting, which are done by hand. Reasons behind such labour divisions require some understanding of social and traditional roles. The labour divisions on farms though, have seen woman receiving the most tedious and strenuous operations. Studies have reviewed observations in planting behind the plough, where the man holds the plough and the woman comes behind doing the planting. It then follows that when the men are able to plough larger areas with the use of draught animal power, women are left with larger areas to weed and harvest. Even in transporting produce using ADP, women are more involved in the loading and off-loading, while men and boys are involved in the transportation of the harvest. In households which do not have ox-carts

and cannot afford to hire them, it is the women who carry the produce on their heads.

Access and control of ADP

Access to and control of ADP, especially for women farmers, becomes a critical issue in analyzing gender and ADP. Where as access in this context refers to the right to use, whether through hiring or ownership, control relates to having power over ADP. In this analysis, the focus is on the extent to which women farmers in general, have access to and control of ADP. As stated earlier, there are various reasons that limit the use of ADP by women farmers. The reasons vary from socio-economic to technical.

Socio-economic

In most rural areas in Zambia, males through inheritance acquire land while married women acquire it through their spouses. In the same way, ownership of cattle is by men through inheritance from male parents. Alternatively, cattle are owned by boys as payment for working as herd boys after three to four years. It is however untraditional for girls to herd cattle. According to a study in three districts in Zambia, women own cattle through marriages when it is paid to their parents as *lobola*. However, the cattle acquired through *lobola* are left with the women's parents when she proceeds to go and live with her husband (Tembo, 1997). Even when women farmers own cattle, it is usually a male relative or employee who works with the animals. There are many and complex reasons for this, mainly to do with social traditions (Starkey *et. al.*, 1991). One critical limitation is the traditional role of cattle, which are the main work animals, and which are regarded as the domain of the man. Women and children's take responsibility for smaller animal such as goats and chickens. Some social traditional norms such as the case of Katete, where it was observed that it is said to be a taboo for a woman to enter a kraal because it is believed that the fertility of cattle will be reduced are against women keeping cattle. This is because the majority of the cattle owners use traditional medicines for boosting production and following on from this is the custom to forbid females, who are still in child bearing age, to enter the kraal.

Access to and control of ADP by women farmers is further limited by the economic dependence of most women on their husbands or sons. The fact that the land is in most cases owned by men, limits women's access to credit. It also follows that the men generally make all the decisions regarding the use of the animals. A few households however, have indicated the participation of the whole family in decision making.

Technical considerations

The suitability of ADP for use by women still remains unclear especially with regard to implements available to farmers importantly regarding their weight. Although there have been some indications that most ADP technology is suitable for both men and women, there is still need to examine the extent. "There do not appear to be significant technical or ergonomic reasons why women do not generally plough, although the implements are quite heavy, they can certainly be used successfully by youths and girls," (Starkey *et. al.*, 1991). It is also evident that although, women are referred to as the busiest people in the rural small-holder agricultural sector, they are marginalised in research and in assisting them in the selection of ergonomically designed machines. Ergonomics aim at more than just preventive approach, it focuses on creating optimum work situations and conditions. The constructive dimensions of any machine in general, should be closely related to the physical dimensions of the worker. (Schoemaker and Jassey, 1996).

However, a study done by Palabana, in conjunction with FAO/IFAD, indicates that women found some implements too heavy to handle. "The question of the weight of the animal-drawn implements warrants close attention. As already mentioned, there were complaints about the weight of ploughs and cultivators. Women were almost unanimous on this issue as they were also in Zambia where the implements are imported from Zimbabwe." (IFAD/FAO/FARMESA, 1998). This is supported by recent changes in preference by most female farmers for donkeys and donkey-drawn implements, which are relatively lighter and smaller in size. In addition to these constraints, fewer women attend ADP courses as compared to men. Furthermore, the number of women involved in ADP promotion activities remains relatively low.

Palabana's role in gender and ADP

Palabana recognises the significance of taking the gender approach in the development and promotion of ADP among small-scale farmers. Through its training and extension programs, Palabana tries to remove the cultural masculine attachment to ADP. This is significant in Palabana's overall objective of contributing to increased agricultural productivity. To achieve the objective, Palabana acknowledges the role women play in agricultural production. It is in this regard that Palabana, through its training, extension and technology development activities, deliberately incorporates gender activities into its programme.

Training and extension

Among other target groups, Palabana trains women clubs in various ADP technologies, including donkey traction. More than 10 women clubs have been trained from all over the country. The courses target both men and women, but Palabana gives priority to women farmers.

Activities include deliberate extension messages, which encourage women farmers, such as illustrations and pictures showing women using ADP on extension/promotion materials. Specific courses for female farmers are organized at the centre and in the field. General courses give women higher priority. Other activities include exchange visits for women farmers. Palabana encourages female extension staff to participate actively. Somehow, people have become more gender conscious in recent years.

So far the response has been overwhelming. Most women are addressed in clubs and have shown great potential in adopting the use of ADP. With the introduction of donkeys, statistics show that 40% of those adopting donkeys are women (Palabana, 1995). Donkeys are preferred by women because of their relatively smaller size and the lighter implements used, which are easier to handle. Donkeys are also said to be more docile compared to cattle.

Technology development.

Since 1992, Palabana has been involved in the developing and testing of promising ADP based technologies with farmers in the different agro-climatological zones of Zambia. During on-farm trials, it came out strongly, as a recommendation, that lighter implements must be developed to facilitate the active participation of women farmers. Implements such as groundnut lifters, rippers and tie-ridgers are light and children as well as women would find them interesting to work with. Lastly, since the introduction of donkey traction technology, most women farmers are finding the technology well suited for them because donkey implements are light and easy to work with. Palabana recommends that women farmers use donkey implements when ploughing or weeding even with oxen.

However, it is often argued from the engineering point of view that, the weight of the implements corresponds with the nature of work that the implement is designed for. Thus, the weight of an implement has nothing to do with gender *per se* during the design stage but rather the source of draught power. It must be mentioned here that light implements work well in light soils and *vice versa*. Hence, it can be concluded that heavy implements are all purpose and lighter ones are less so.

Conclusion

It is vital to bear in mind the gender aspects in the development and promotion of ADP for small-scale farmers in Zambia. By assessing and understanding the gender roles in a given society, the specific needs of women (and men) can be ascertained and addressed. Of vital importance, is to ensure that, women, who in addition to productive roles have various other reproductive roles, are not overburdened. Instead, women, who have a major role to play in agricultural production and food security, work efficiently through the use of ADP just as much as the male farmers. It therefore becomes necessary for one to go beyond the household and break it down into component parts, to identify and acknowledge the roles men and women play in agricultural production.

Regarding the development of 'special' implements for women farmers, it would be safe for us to

conclude that, the only opportunity at the moment for improving implements lies in the area of quality, durability, ergonomics and a wider assortment of marketed implements. There have been observations that, one of the basic problems in rural Zambia is that rural based farmers do not know what different models of industrially-produced or imported tools/implements exist. Thus, people are forced to buy what they find and not necessarily what they need. Otherwise, they have to travel long distances in search of the right implements or spare parts. Previous efforts by the Magoye ADP research and development project to take spare parts to the doorsteps of the rural based farmers proved that, farmers give different views on the issue. Most of them talk of lack of spare parts, but later change their perception to that of spares and implements being too expensive.

References

- Brett A.** 1991. Why gender is a development issue. Changing perceptions, Oxfam publication, edited by Tina Wallace and Candida March.
- IFAD/ FAO/FARMESA**, 1998, The Potential for Improving Production Tools and Implements Used By Women Farmers
- Schoemaker A. and K. Jassey.** 1996. Agrotec/FAO Workshop proceedings, Gender and Agricultural Engineering, Zimbabwe. 66p.
- Starkey P. Dibbitts H. and Mwenya E.** 1991. Animal Traction in Zambia: Status, Progress and Trends 47p.
- Sylwander L. and T. E. Simalenga (eds)** 1997. Gender issues in Animal Traction.: A handbook. ATNESA publication.
- Tembo, A.N.** 1997. Gender and Animal Draught Power. Consultancy report submitted to Africare-SAMeP
- Palabana Animal Draught Power Development Program** 1995. Rapid Rural Appraisal report. 35p.