

## **An Evaluation of Intra-Household Asset Distribution and Decision Making In A1 Resettlement Areas in Goromonzi District in Zimbabwe**

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**Abstract:** *The primary aim of the study was to evaluate intra-household asset distribution and decision-making in A1 resettlement areas in Goromonzi District in Mashonaland East Province. The study used both quantitative and qualitative approaches. A mixed methods design where the case data occupied a secondary role to national survey data was used. In the case study, five data collection techniques were used namely, questionnaire, interviews, focus groups, simple observations and document reviews in order to improve the quality and validity of the case data through triangulation. The study showed that there was no evidence to suggest that women were discriminated in the allocation of land in A1 resettlement areas. To the contrary, it seemed women's land rights actually increased both as individuals and through joint registration of offer letters. In fact, access to and control over assets including land had significant influence on household gender dynamics as it enhanced a spouse's bargaining power. This was demonstrated by joint decisions in the acquisition and disposal of both household and productive assets. In addition, there were continuous consultative processes on key agricultural activities and utilisation of the income derived from the agricultural enterprise. The study demonstrated that within households women no longer had a subordinated status relative to men and that they had equal decision-making power on intrahousehold allocation of resources and that ultimately more resources were allocated to them than before.*

**Keywords:** *Intra-household; aggregate household; A1 resettlement; assets; mixed methods.*

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### **I. Introduction**

Generally, women's individual control over resources is considered important not only because of the fairness of equal access to resources, but also because of the resulting economic autonomy of women and their increased bargaining power within the household and how these may translate into more egalitarian intra-household relations. The concerns are that within such households women may have a subordinated status relative to men, that they may have less decision-making power on intrahousehold allocation of resources and that ultimately fewer resources may be allocated to them. These were the overarching issues examined in this study.

In this section, two polar economic models of household and intra-household decision-making are identified and discussed: the aggregate household model and the intra-household model. The aggregate household level analysis is associated with the Chayanov model, new home economics model and the farm household model (Cohen, 1996). The Chayanov model was the first attempt to integrate production and consumption decisions in the analysis of a peasant household (Cohen, 1996). According to the Chayanov model, the household seeks to maximise utility through the consumption of goods produced on the farm, goods purchased from the market and leisure. The new home economics model or unitary model is attributed to Samuelson's (1956) consensus model and Becker's (1974, 1981) altruist model (Ironmonger, 2001; Lundberg and Pollak, 1996). In the household economic theory, the household is regarded as a productive sector with household activities modelled as a series of industries (Ironmonger, 2001). The utility of the household is based on home-produced goods known as "Z-goods" (Cohen, 1996; Haddad, Hoddinott, and Alderman, 1997). The Z-goods are for home consumption only and the household gets income solely through wage work. The unitary model assumes that family members pool all their resources (including labour, food and information) and incomes and share common interests and preferences (Samuelson, 1956 cited in Haddad et al., 1997; Agarwal, 2003) or an altruistic head ensures equitable allocations of goods and tasks (Becker, 1981 cited in Agarwal, 2003) in order to maximise household utility.

The farm household model provides a full model of the household as both a consumer and producer and can be applied to non-agricultural households (Cohen, 1996). It assumes that the household seeks to maximise utility which is derived from the consumption of home-produced goods, purchased goods and the time spent in leisure. The household's efforts to maximise utility are constrained by the production function, the total

time available to the household and the availability of wage work. According to Cohen (1996), the major contribution of the farm household model is that it provides a theoretical framework for analysing the interactions between the various activities of the household: production for the market, production for home consumption, wage work and consumption of purchased goods.

The above aggregate household models emphasize sharing, altruism and cooperation. There is mounting empirical evidence that refutes the altruistic assumption (Agarwal, 1997, 2003; Haddad et al., 1997; Strauss and Thomas, 1995 and Behrman, 1997 cited in Meinzen-Dick et al., 2011; Quisumbing, 2003; Stowhase, 2009). The unitary model posits Pareto efficiency as the sole mechanism through which household members achieve their individual and common family goals. Markets and in particular, land markets are imperfect in developing countries such that resource allocation based on such markets may not be Pareto efficient (Shultz, 2007). Apart from losing ground in rigorous tests, the unitary model has failed to explain systematic intra-household disparities in developing countries (Haddad et al., 1997). These empirical results have strengthened the standing of intra-household collective bargaining models (Agarwal, 2003; Quisumbing, 2003).

Intra-household models or collective models were pioneered by Manser and Brown (1980), McElroy and Horney (1981), Chiappori (1988, 1992) and Lundberg and Pollak (1993) (Haddad et al., 1997; Stowhase, 2009). The intra-household models depart from the aggregate household models' assumptions of joint and uniform household utility functions and altruism and replace them with bargaining, conflict and unequal power relations between married partners (Haddad et al., 1997). There are two categories of collective models, namely cooperative and non-cooperative types. Both models use game theory to specify the bargaining process (ibid). The cooperative models assume the attainment of Pareto optimality in household decisions, pooled income, enforceable and binding contracts and symmetrical positions between spouses in relation to the availability of information and the ability to bargain (Haddad et al., 1997). Household members bargain over the use of pooled income and the outcome of the bargaining process depends on the individual members' bargaining power which is determined by their respective fall-back positions. If the spouses fail to reach agreement, both husband and wife receive the utilities associated with a default outcome described as the "threat point," "disagreement point," "breakdown position," or "fallback position" (Pollack, 2002). The factors that influence the fall back position include conditions in the labour market, conditions in marriage market, rules governing divorce and physical, financial, and human capital assets held by the individual marriage partners (Agarwal, 1997; Cohen, 1996; McElroy, 1990; Sen, 1987) as well as the perceived self-interest and self-worth (Sen, 1987). In Manser and Brown (1980) and McElroy and Horney (1981), the threat point is interpreted as divorce, while in the "separate spheres" model of Lundberg and Pollack (1993), the threat point is interpreted as a non-cooperative equilibrium within marriage (Pollack, 2002). The Nash bargaining model provides a conceptual solution in cooperative bargaining models of marriage. In the Nash bargaining solution, the utility received by husband or wife depends on the threat point; the higher a spouse's utility at the threat point, the higher the utility that spouse will receive (Pollack, 2002). According to Pollack, the empirical implication of Nash bargaining model is that a couple's expenditure pattern depends not only on prices and the couple's total income, but also on determinants of the threat point.

The non-cooperative models assume separate utility and non-pooling of resources by the household members (Haddad et al., 1997). The assumptions of Pareto efficiency, income pooling and enforceable and binding contracts are relaxed (Haddad et al., 1997). Instead, the models allow differing preferences between individuals, allow for individual production decisions and information asymmetry between parties with respect to the rules of the game (Wooley, 1988, Kanbur and Haddad, 1994 cited in Agarwal, 1997). In the non-cooperative models, the household is depicted as a site of largely separate gender-specific economies linked by reciprocal claims on members' income, land, goods and labour (Haddad et al., 1997). According to these models, individuals act strategically within a household to maximise self-interest taking as given the behaviour of other members (Chen and Woolley 2001 cited in Shultz, 2007). The non-cooperative models use the concept of Cournot-Nash equilibrium to analyse how an individual will cooperate with other household members when the utility from cooperation would exceed that of his or her selfish behaviour within the household. A threshold level utility from strategic behaviour is modelled as a threat point to cooperation where the threat is about a return to a non-cooperative behaviour in a separate sphere of a household (Lundberg and Pollak 1993, 1996; Shultz, 2007) rather than about quitting the household as in the cooperative bargaining models of Manser and Brown (1980) and McElroy and Horney (1981) all cited in Shultz (2007). The non-cooperative model is more appealing if individual household members are assumed to intuitively know their personal utilities in separate spheres of the household and then use that information to change their bargaining power (Schulz, 2007).

While both the unitary and collective models allow public policy to change intra-household allocations of a good (or asset), only the collective model permits public policy to affect the rules of intra-household allocation (Quisumbing and Maluccio, 2000). Household bargaining models provide a formal framework for incorporating the role and consequences of power into economic models of the household decision making

processes (Cohen, 1996). The social norms and external institutional conditions that influence intra-household interactions can be explicitly incorporated into intra-household models whereas under the aggregate household models (especially, the farm household model), the only external variables to enter into the analysis are market prices and wage rates (Cohen, 1996). Unlike the aggregate household models, the intra-household models provided a theoretical framework for analysing observed differences between men and women in time allocation, expenditure patterns and resources (Haddad et al., 1997) as well as the choice of business enterprise (Cohen, 1996). Haddad et al., (1997) argue that apart from losing ground in rigorous tests, the unitary model has failed to persuasively explain systematic intra-household disparities in developing countries.

In this study, the collective model of the household was used to analyse the distribution of land and related assets within households in A1 resettlement areas of Goromonzi District. The justification was that the collective model focused on an individual as a unit of analysis and thus was able to address interests, conflicts and cooperation (bargaining) among the household members. An individual's bargaining power is determined by his or her control over economic resources (Quisumbing and Maluccio, 2000; Agarwal, 2003). The second reason for using the collective model was that the person controlling the resource(s) is identified in the model which allows an analysis of the direct effects of placing resource(s) in the hands of different household members. According to Strauss and Thomas (1995) cited in Shultz (2007), the unitary model relies on unrealistic assumptions. The unitary model assumes that unobservable factors such as "invisible hand" and "love" account for the observed intra-household allocations while the collective models explain intra-household allocations using the concept of bargaining power (Shultz, 2007).

### **1.2 Study objectives**

- To characterise asset ownership including land in terms of sex in A1 resettlement areas.
- To describe the perceptions and beliefs of A1 farmers on gender relations.
- To examine division of labour within households in A1 resettlement areas.
- To describe decision-making process within households in A1 resettlement schemes.

### **1.3 Research questions**

- How can asset ownership (including land) be characterised in A1 resettlement areas?
- What are the perceptions and beliefs of A1 farmers on gender relations?
- How are tasks allocated within households in A1 resettlement areas?
- How are farming decisions made within households in A1 resettlement schemes?

### **1.4 Hypothesis of the study**

Research question one was operationalised using the following hypothesis.

**H1:** Women have no access to and control over assets including land in A1 resettlement areas.

This hypothesis was tested using statistics on the distribution of land between men and women. This was possible because A1 farmers had offer letters that confirmed their access to and control over land. The test was done by comparing landholding in the following categories: household head; spouse; joint-registration and other(s). The hypothesis would be rejected if there is a statistical difference between the relative distributions of offer letters in the four categories.

## **II. Research Methodology And Design**

The study used both quantitative and qualitative approaches (Creswell, 2009). A mixed methods design where the case data occupied a secondary role to national survey data was used. A case study of two A1 resettlement areas in Goromonzi District in Mashonaland East Province was used to produce more in-depth and comprehensive information. Five data collection techniques were used the case data: questionnaire, interviews (structured and semi-structured), focus groups, simple observations and document reviews. This multi-method approach to data collection was part of an overall approach to improving the quality and validity of the case data through triangulation (Bryman, 2001; Easterby-Smith, Thorpe and Jackson, 2008; Miles and Huberman, 1994; Saunders, Lewis and Thornhill, 2009). Of these methods, no single source had complete advantage over others. Instead, the methods were complementary to each other and where possible, they were used in tandem in order to give an in-depth understanding of gender relations on intra-household asset distribution and decision-making in A1 resettlement areas.

### III. Presentation And Discussion Of Research Findings

The hypothesis in section 1.4 was operationalised using a chi-squared test for independence or otherwise between sex and land holding in A1 resettlement areas.

#### 3.1 How can asset ownership including land be characterised in A1 resettlement areas?

The first research question asks for the effects of women’s access to and control over assets. The research question was used to test if women had less access to and control over land than men in A1 resettlement areas using names on the offer letters. A chi-squared test for independence was used to determine if there was any association between two attributes, availability of offer letter (Offerle) and category of landholding (farmdoc). The rationale for using the chi-square test for independence was that the variables under study, Offerle and farmdoc are categorical (Landau and Everitt, 2004).

The variable farmdoc is from the baseline survey and asks in whose name the offer letter was issued. It takes values: 1=offer letter issued in the name of the household head (usually male); 2=offer letter is in the name of the spouse; 3=joint registration of both spouses’ names on the offer letter and 4=other(s) where the offer letter is in the name of a child or relative. The “other” category also includes category where the sex of the A1 farm holder is not known. The variable Offerle is a dummy variable and specified whether the A1 farmer had an offer letter: Offerle=1, A1 farmer had an offer letter and Offerle=0, A1 farmer had no offer letter. A1 farmers without offer letters included squatters and those who forcibly occupied and self-appropriated the farm holdings. The test included households with couples (dualhead=1) and male-headed households (SexHHH=0) since the researcher expected married women to be deprived of their land rights in A1 resettlement areas. On the other hand, women in single-headed households were expected to have access to land in their own right.

Under the chi-square test, what does the null hypothesis say? The null hypothesis to be tested is that there is no association between category of landholding and availability of offer letter. The categorical variable Offerle has two rows, *r* and categorical variable (farmdoc) has four columns, *c*. The null hypothesis states that knowing the level of variable availability of offer letter does not help us to predict the level of variable category of landholding. In other words, the variables are independent. The alternative hypothesis states that knowing the level of variable availability of offer letter can help us to predict the level of category of landholding. The null hypothesis would be rejected if the p-value is less than the level of significance. Support for the alternative hypothesis would suggest that the two variables are related, but the relationship is not necessarily causal in the sense that one variable “causes” the other (Gujarati, 1988, 1999; Verbeek, 2008). The results of the chi-squared test for independence between category of land holding and availability of offer letter are shown in Table 3.1.

**Table 3.1:** Chi-square test of the relationship between category of landholding and availability of offer letter

Do you have an offer letter?	Under whose name is the farm holding registered?				Total
	Household head	Spouse	Joint registration	Other	
Yes (=1)	1233 90.9 81.1	116 8.5 93.5	5 0.2 62.5	3 0.4 100	1357 100 81.9
No (=0)	288 96.3 18.9	8 2.7 6.5	3 0.0 37.5	0 1.0 0	299 100 18.1
<b>Total</b>	<b>1521</b> <b>91.8</b> <b>100</b>	<b>124</b> <b>7.5</b> <b>100</b>	<b>8</b> <b>0.5</b> <b>100</b>	<b>3</b> <b>0.2</b> <b>100</b>	<b>1656</b> <b>100</b> <b>100</b>
Pearson Chi-square=14.785                      df=3                      p=0.002					

The results of the chi-square test show the degrees of freedom, expected count or frequencies, the test statistic,  $\chi^2$  and the p-value associated with the test statistic. The results of chi-square tests in Table 1 show a statistically significant association between variables, Offerle and farmdoc. The chi-square test statistic is 14.785 with 3 degrees of freedom and p-value of 0.002. Since the p-value is less than the level of significance ( $p < 0.05$ ), the researcher rejected the null hypothesis and concluded that some factor(s) was/were involved for the deviation to be so great. Rejecting the null hypothesis means that there is evidence that the relative distribution of land rights is statistically the same between the landholding constellations: offer letter in the name of the household head (who is usually male); offer letter in the name of the spouse; offer letter in the names of both spouses (joint registration) and other(s) category where the offer letter is in the name of a child or any other relative across the variable Offerle. In fact the results showed that there was no evidence to suggest that women were discriminated in the allocation of land in A1 resettlement areas. To the contrary, it seemed women’s land rights actually increased both as individuals and through joint registration of offer letters.

### **3.2 Research findings from the case study**

The case data were summarised and organised according to these themes: background of A1 farmers; perceptions and beliefs on gender relations on land; characterising asset ownership in A1 resettlement areas; intra-household asset distribution and intra-household division of labour and decision making. The answers to the questions asked revealed how gender relations on land and other assets were organised and what roles and responsibilities were assigned to each member of the household.

#### **3.2.1 Background of A1 Farmers**

Most of the A1 farmers were formerly or currently employed in the urban areas (43.3 percent) while 35.1 percent came from the communal areas. The remainder was made up of 18.9 percent who were in the informal sector mainly as vegetable vendors and 2.7 percent were business people. The breakdown of A1 farmers who were employed in the urban areas was as follows: 32.4 percent, private sector; 8.1 percent, civil service and 2.7 percent, security service made up of the army, police, prisons and intelligence organisation. A majority of the farmers (89.2 percent) did not have formal agricultural training while 29.7 percent did not go beyond primary education. Although 91.8 percent of these farmers had more than six years of farming experience, lack of proper agricultural training impacted negatively on their agricultural production efficiency.

#### **3.2.2 Perceptions and beliefs on gender relations on land**

Studying the perceptions of the A1 farmers helped to analyse the role of social assets in land transfers. For example, 71.4 percent of the A1 farmers said they learnt about the FTLRP through their political party, ZANU-PF while 11.4 percent knew about the programme through friends and/or relatives. This showed that the household is a permeable entity where individual and household interactions played out within the socio-political network which had influence over household decisions and actions regarding the acquisition, use and disposal of land in A1 schemes. The use of political and social networks in land allocation had the inevitable fundamental outcome of excluding those who did not belong to a particular social group. A majority (86.5 percent) of the farmers in Goromonzi District felt that there was need for individual land rights between men and women. However, 83.8 percent stated that there was equal access to and control over land in A1 resettlement areas between men and women.

#### **3.2.3 Physical assets acquired and owned by A1 households**

During a transect walk in the two study sites, the researcher observed farm infrastructure (dams and irrigation); farm buildings (tobacco barns and warehouses); water collection points; roads; types and quality of crops; livestock and productive assets such as tractors, ox ploughs and water pumps. Simple direct observation was used to compare and/or complement data collected through the questionnaire and other sources. In addition, observations allowed the researcher to witness first hand the socio-economic livelihood initiatives such as the number of livestock and types of crops grown as well as observe the physical infrastructure and acquired household and productive assets. The data collection tool was also instrumental in understanding gender and power dynamics, division of labour and asset distribution between husband and wife within A1 households.

The farm holdings in the two schemes are A1 village model. The researcher toured the farms and saw the proportion of the farm under cultivation during the 2012/2013 agricultural season. The arable area allocated to each household varied between five and nine hectares and there was a common grazing area. The researcher observed the emerging land use patterns on A1 farms regarding the type and quality of crops and livestock rearing. Although maize was the major crop grown, some farmers diversified into commercial crops such as tobacco, soya beans and potatoes. However, the researcher did not record the area planted for each crop. This could have enabled me to determine the income earned by the A1 farmers.

During interviews with A1 farmers some revealed that they had virtually no assets when they were allocated land in 2000/2001 and that their livelihoods were now comparatively better in A1 schemes than they were in the communal areas or in the urban areas. From the questionnaire, 94.6 percent answered that their asset holding increased after acquiring A1 farm holdings. The assets mostly mentioned included bigger houses (with either asbestos or zinc roof types), more livestock (mostly cattle) and productive assets (tractors, lorries, ox-drawn ploughs, scotch carts and ox-drawn cultivators) which they bought after selling crops. A majority of the houses had roof types of zinc (56.8 percent), asbestos (27 percent) and improved thatch (10.8 percent). Only a few structures (5.4 percent) remain built of pole and mud. After people's sense of tenure security increased (as their stay on the farms became permanent), construction of houses using bricks, cement and asbestos or zinc increased. Most farmers attributed their improved welfare to richer soils and greater opportunities for a range of alternative livelihoods strategies besides agriculture. The farmers who answered "no" attributed their predicament to either theft or fire. They did not mention poor soils or unavailability of agricultural inputs as the

causes for their not accumulating assets. This showed that A1 farmers regarded farming as a productive business enterprise.

The provision of A1 plots had also a positive impact of enabling some beneficiaries to acquire certain productive assets which they did not have before being resettled in Baines Hope and Ingwenya Farm or assets that they would not have been able to accumulate in the areas they previously lived. This is evident from the fact that several households had acquired assets in the form of small agricultural implements (such as hoes and shovels) (97.3 percent), wheel barrows (86.5 percent), ox ploughs (56.8 percent), ox cultivators (17 percent) and scotch carts (37.8 percent). In addition, some households had acquired lorries, tractors, passenger vehicles and bicycles. Table 3.2 shows the types of assets acquired by households in Goromonzi District. An interesting finding was that 54.1 percent of the households indicated that the acquisition of assets was a joint decision between husband and wife. This was because both spouses contributed to the agricultural enterprise in different ways. Meanwhile putting market values to these assets and other constructions and installations (for example, garden fencing, satellite television and wells) as well as other small household durables like television sets, solar power and stereos, the sum total of such investments was quite substantial.

**Table 3.2:** Types of assets owned by A1 households

Productive assets owned	Yes (Percent)	No (Percent)
Ox cultivator	17	83
Ox plough	56.8	43.2
Ox cart	37.8	62.2
Ox harrow	16.2	83.8
Ox ridger	5.4	94.6
Tractor	5.4	94.6
Tractor implements	5.4	94.6
Lorry	5.4	94.6
Passenger vehicle	13.5	86.5
Motor cycle	8.1	91.9
Agricultural implements e.g. hoe, shovel	97.3	2.7
Bicycle	70.3	29.7
Wheelbarrow	86.5	13.5

### 3.2.4 Livestock owned by A1 farmers in Goromonzi District

Table 3.3 shows the types of livestock owned by A1 farmers in Baines Hope and Ingwenya Farm in Goromonzi District. The table shows that several households had acquired livestock, mainly chicken, ducks, goats, pigs and cattle. However, cattle ownership was still not as broad-based as each household had an average of 1.49 cattle. These livestock were used to supplement household livelihoods besides being used as draught power and meat. Interestingly, there were no households that owned donkeys in the two study sites.

**Table 3.3:** Types of livestock owned in A1 schemes

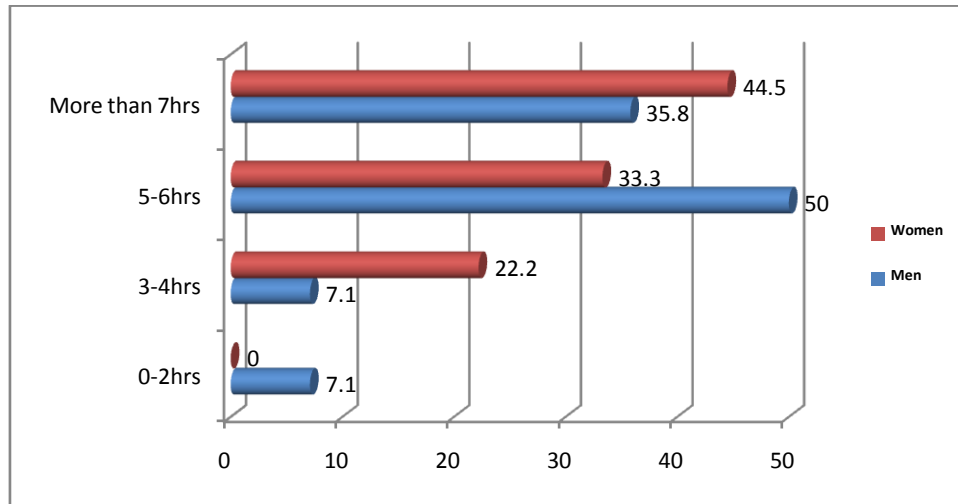
Livestock owned	Mean	Std deviation
Cattle	1.49	4.30
Goats	3.08	8.12
Pigs	1.24	8.58
Donkeys	0.00	0.00
Chicken	13.86	17.89
Fowls	0.56	8.92
Sheep	0.06	0.33
Ducks	2.65	8.93

The acquisition of livestock especially cattle was mainly done by men (54.1 percent). About 24.3 percent of the households indicated that husband and wife (or wives) made joint decisions in the acquisition of livestock. Women tended to acquire small livestock such as chicken and goats.

### 3.2.5 Intra-household division of labour and decision making

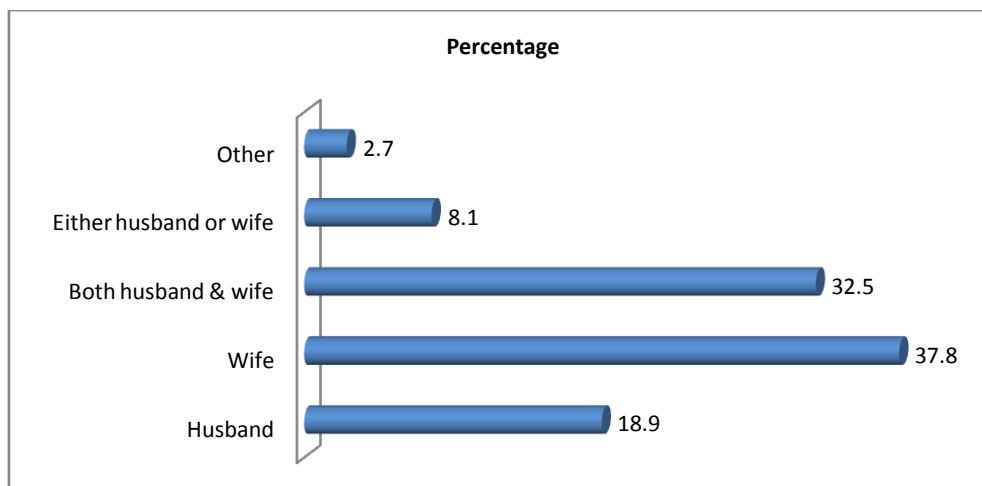
In both study sites, the researcher observed how agricultural work was shared between men and women. In Ingwenya Farm the researcher observed men and women harvesting, grading, curing and packaging tobacco. The farm labour was shared between the family and hired labour. The gendered relations of production

still shaped the division of labour between males and females within the same farming household. This also extended to hired labour which comprised both males and females although female labour predominated. There was more female labour because some of the male farm workers were involved in informal activities such as vending in Harare. Land preparation was mostly done by hired labour (23 percent) while planting and hoeing (or weeding) were mainly done by family members (27 and 26 percent respectively). The harvesting of crops was done by family labour (31 percent). In terms of time budgets, women tended to spend more time on agricultural activities than men. Figure 3.1 shows the times spent per day by men and women on agricultural activities in the two study sites. Interviews with key informants revealed that several households also exchanged grain as payment for labour services rendered by extended family members or farm workers or casual labour from surrounding communal areas.



**Figure 3.1:** Time budgets for men and women

Figure 3.2 shows the person who collects money after selling agricultural produce. From the case data 37.8 percent of the respondents indicated that women were directly involved in the marketing of agricultural products and had considerable influence on the use of the income. That is, 67.6 percent of the spouses confirmed that they made joint decisions on the use of income from agricultural activities. In 21.6 percent of the households, the wife made sole decisions on the use of income from agricultural activities while 8.1 percent of the households indicated that the husband had the sole responsibility on the use of agricultural income. This demonstrated that income from agriculture had value in changing gender roles and relations in the household and probably the whole community. Meanwhile, the resettlement programme also offered married women space to engage in non-agricultural livelihoods-enhancing strategies (such as nutrition gardens, business enterprise and vending) that provided them with independent sources of income. These increased opportunities for women improved overall household welfare (through increased income), gender equality and empowerment.



**Figure 3.2:** Person collecting income from sale of agricultural produce

#### IV. Conclusion

There was no evidence to suggest that women were discriminated in the allocation of land in AI resettlement areas. To the contrary, it seemed women's land rights actually increased both as individuals and through joint registration of offer letters. In fact access to and control over assets including land had significant influence on household gender dynamics as it enhanced a spouse's bargaining power. This was demonstrated by joint decisions in the acquisition and disposal of both household and productive assets. In addition, there were continuous consultative processes on key agricultural activities and utilisation of the income derived from the agricultural enterprise. For example, testimonies by women in the two study sites depicted an improvement in their socio-economic status and food security as well as improved sense of dignity. The study demonstrated that within households women no longer had a subordinated status relative to men and that they had equal decision-making power on intrahousehold allocation of resources, division of labour and that ultimately more resources were allocated to them than before.

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