INTRODUCTION: With the high food insecurity in Zambia, women empowerment in agriculture remains crucial for improving diets and nutrition status, especially in rural areas. This is true given that the recent estimate by FAO et al. (2017) shows that close to half of Zambia’s total population is food insecure, an indication that women empowerment could be low. Moreover, most households in rural areas consume a maximum of seven food groups out of the 13 food groups necessary for attaining sufficient food access (CSO/MAL/IAPRI 2015). Cereals are most commonly consumed food group by 97.5% of the households, followed by dark green leafy vegetables (72.8%), other vegetables (71.1%), roots and tubers (55%) fats and oils (66.5%) and legumes (52%). Meat and meat products and vitamin A fruits were the least consumed food groups (Mofya-Mukuka and Sambo 2018).

The role of women in ensuring improved food security at household level cannot be overlooked. However, despite women’s huge
contribution to the agricultural sector, providing about 52% of the total labor force in the sector, the country continues to perform poorly in terms of gender equity and women empowerment.

Several empirical studies have been carried out to investigate the implications of women empowerment in agriculture on food security and nutrition elsewhere. In Zambia, however, this evidence is still limited with a few studies analyzing the determinants of gender control over agriculture revenue and production among small holder households (Kasanda 2017; Namonje-Kapembwa and Jayne forthcoming and Namonje-Kapembwa and Mukuka-Mofya 2017).

In the current study, we extend this analysis to provide a reference point on the impact of Women Control over Agriculture Income (WCAI) on household food security measured by household dietary diversity score (HDDS) as a key component of food security. The study further analyses joint differential impact of WCAI and household agricultural commercialization on HDDS. Previous studies express concern that increasing agriculture commercialization weaken the role of women in decision making and control over agriculture resources and income (Quisumbing and Maizen-Dick 2001; Fisher and Qaim 2012).

DATA AND METHODS: Data for this analysis primarily comes from the 2015 Rural Agriculture Livelihood Survey (RALS) conducted by the Indaba Agricultural Policy Research Institute (IAPRI). The survey was designed to cover a representative number of 7,934 households covering the 2013/14 farming season. A total of 664 Enumeration Areas (EAs) were drawn out of a total of 442 EAs with 20 randomly selected households enumerated. Due to the challenges of matching household level variables to those of the decision maker, we analyzed data at field/plot or livestock level with total sample size of 18,750.

This study combines descriptive as well as econometric analysis to assess the differential impact of women empowerment in the control of agricultural income on household dietary diversity. To assess the effect of women empowerment on HDDS, an ordered probit model was employed. For more details on data description and methods see (Mofya-Mukuka and Sambo 2018).

KEY FINDINGS: This brief highlights major findings from the study.

Control over Agricultural Income and Level of Commercialization for Crops and Livestock: In general, we found that men control more income from agriculture than the women (Table 1). This gender gap in control over income is observed across all the five rural agricultural enterprises which were studied. Interestingly, we observe that groundnuts which is traditionally considered a woman’s crop in Zambia: women have the largest control of income at 47.9% though this is still below that for men who control over 50%.

It also appears that women enjoy quite a large share of income control from horticultural production (fruits and vegetables) at 46.3%. Further women control over income from other enterprise namely; livestock, mixed beans and maize is 38.9%, 33.4% and 22.4% respectively. It is not surprising to see that women have the lowest control of income for maize being that: this enterprise is typically considered a man’s crop.

Table 1. Percentage of Gender Control over Income from Individual Crops and Livestock

<table>
<thead>
<tr>
<th>Gender of DM</th>
<th>Maize</th>
<th>G/Nuts</th>
<th>Beans</th>
<th>Fruits &amp; Vegetables</th>
<th>Livestock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (%)</td>
<td>77</td>
<td>52.1</td>
<td>67</td>
<td>56.4</td>
<td>61.1</td>
</tr>
<tr>
<td>Female (%)</td>
<td>23</td>
<td>47.9</td>
<td>33</td>
<td>43.6</td>
<td>38.9</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Authors.

With regards to the level of household commercialization, results show that, fruits and vegetables are highly commercialized crops at over 60%. On the other hand, livestock is the least commercialized enterprise at slightly less than 10% (Figure 1).
Figure 1. Level of Commercialization for Each Crop Livestock


Women Empowerment and Household Access to Food: Compared to men, women control over agricultural income is more likely to increase HDDS (a measure of food security). When women take more control over income, HDDS is likely to increase by 0.9, 2.8 and 0.4 percentage points for HDDS levels 6 to 7, 8 to 9 and 10 to 12 respectively. For HDDS lower than 5, women control over agriculture income has lower probability of increasing HDDS pointing to the need for several other basic interventions for such households.

Household crop commercialization on the hand also has significant and positive impact on HDDS. Our findings show that the higher the commercialization index, the larger the impact coefficient on HDDS levels 6 to 7, 8 to 9 and 10 to 12. Similarly, the effect of household crop commercialization on HDDS lower than five decreases. Surprisingly, we find that the impact of livestock commercialization on HDDS is not statistically significant possibly because livestock commercialization is low.

On the other hand, increased household crop commercialization tend to subvert women control over agricultural income such that its effects on HDDS is less strongly significant compared to men although positive for higher levels of HDDS.

These results support concerns raised in previous studies that increasing agriculture commercialization weaken the role of women in decision making and control over agriculture resources and income (Quisumbing and Maizen-Dick 2001; Fisher and Qaim 2012).

Other secondary findings which have a positive significant effect on HDDS include among them; participation in off-farm income, membership to economic organizations such as farmer’s cooperatives and women groups, the size of land owned by the household, whether the household practiced minimum tillage or not and whether households located in Zone IIa and III as opposed to Zone I.

CONCLUSION: The study examined the impact of women empowerment and the differential effects in the control of agricultural income on household dietary diversity. The results confirm that empowering rural women improves household access to food. Crop commercialization is important for achieving household food security whereas livestock commercialization has no effect at all. However, the findings have shown that increased household crop commercialization weaken women control over agricultural income, with men taking more control over income than women.
RECOMMENDATIONS: Based on these findings, the study makes the following recommendations:

Promote Gender-sensitive Policies: In order to improve access to food at household level, there is need to address intra-household gender power differences by promoting gender-sensitive policies. This will empower women to take full control of income raised from agriculture.

Enhancing Policy Factors: Efforts to improve household dietary diversity should focus on enhancing factors that increase household income and improve access to markets augmented by more women control over the income. Empowerment in control over income from Agriculture is therefore crucial.

REFERENCES:


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