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Background

- ❑ Agricultural sector plays an important role in food & nutrition security and livelihoods in developing countries.
- ❑ Sierra Leone has a youthful population & thus facilitating youth participation in agriculture has the potential to drive away widespread poverty.
- ❑ Income is likely to influence dietary diversity if a household share of expenditure is significant or if the income is used to source factors of production to diversify production (Koppmair et al., 2016)
- ❑ The study evaluated the influence of income on food and nutrition security among participants in the Business Loop program (an employment promotion program) in three districts of Sierra Leone.

Methods

- **Study area:** Sierra Leone (Kono, Koinadugu & Kailahun districts)
- **Sampling:**
 - Total sample size = 134
 - 91 intervention & 43 control group
- **Data collection methods**
 - Semi-structured questionnaires
 - Dietary diversity using a 24-hr Recall (MDD-S) (FAO, 2016)
 - 6 FGDs in 3 districts: 39 female and male participants

Research design

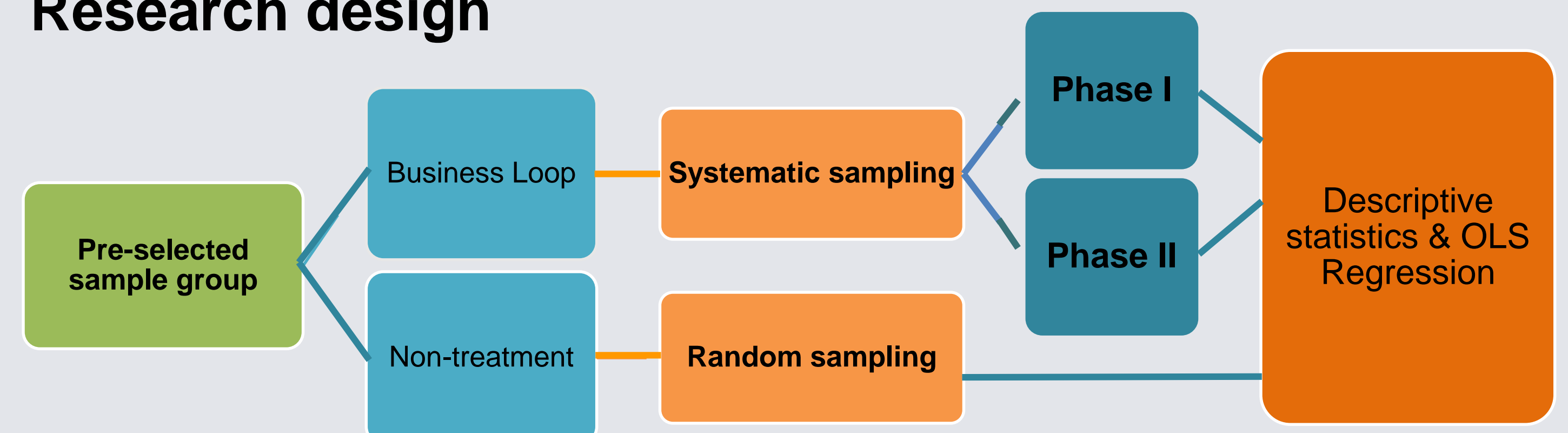


Figure 1. Research Design

Results

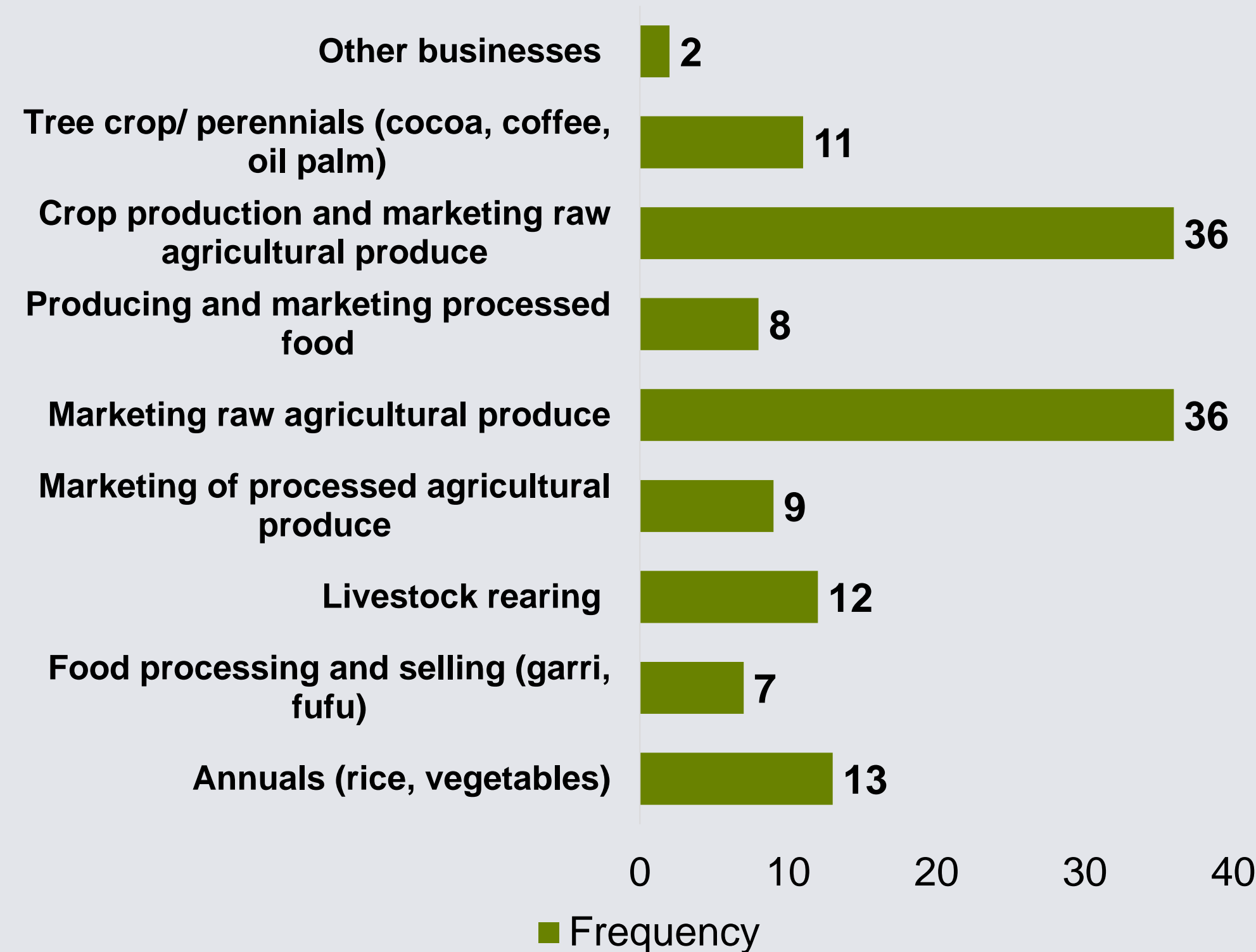


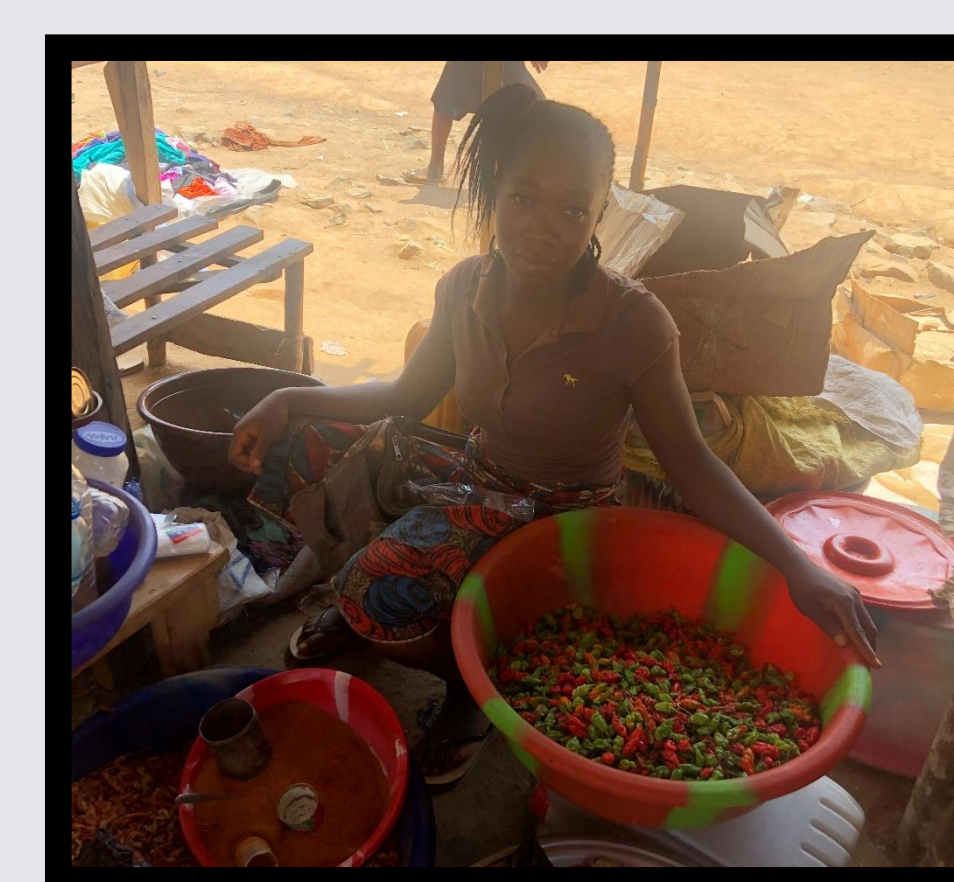
Figure 2. Types of businesses among study respondents



Picture 1. Grains Entrepreneur



Picture 2. Cocoa/ coffee entrepreneur



Picture 3. Pepper Entrepreneur

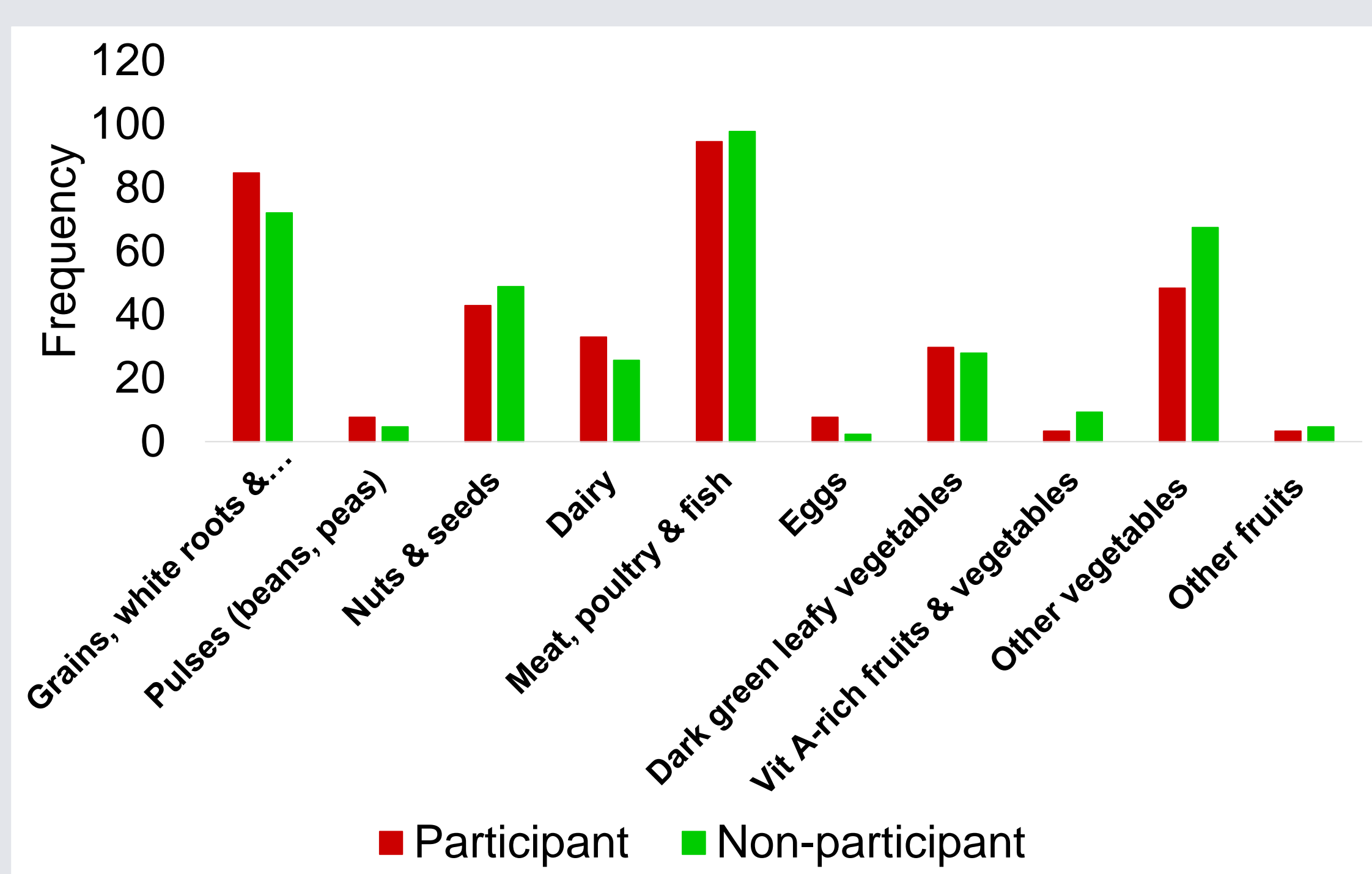
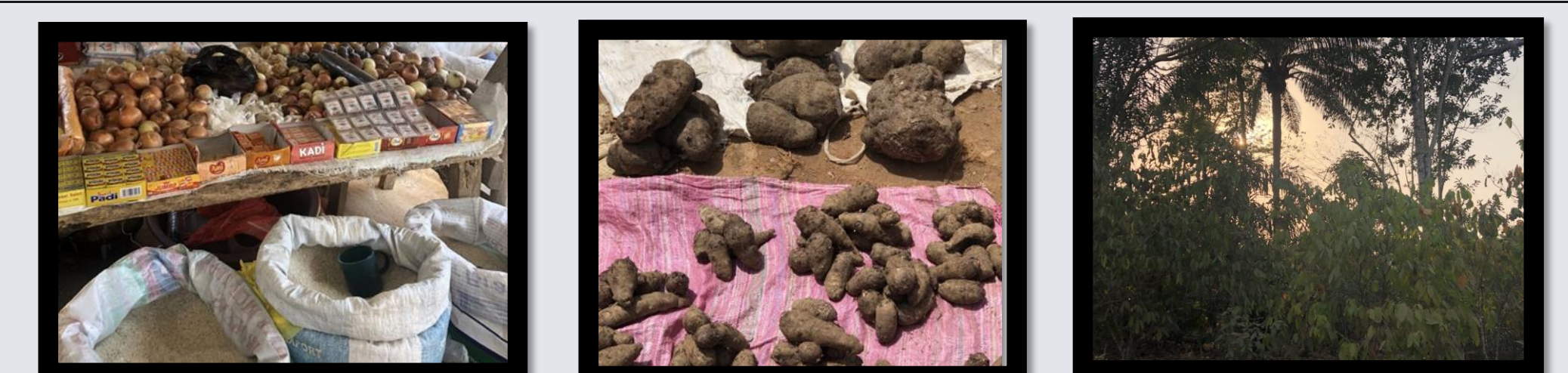


Figure 3. Consumption of food groups using 10-scale MDD-S indicator

Table 1. Influence of income on Minimum Dietary Diversity Score

| Explanatory variables | Expected sign | Unit | Coeff. | Std. Err. | P-value | Sig. |
|--|---------------|------------------------|--------|-----------|---------|------|
| Participation in B-Loop program | + | Yes=1 | -0.23 | 0.24 | 0.336 | |
| Gender of respondent | +/- | Female=1 | -0.51 | 0.25 | 0.042 | ** |
| Gender of household head | +/- | Female=1 | 0.58 | 0.32 | 0.072 | * |
| Age of respondent | +/- | Continuous | -0.04 | 0.02 | 0.063 | * |
| Household dependants | +/- | Continuous | 0.02 | 0.03 | 0.653 | |
| Production diversity score (no. of crop species) | +/- | Score | 0.23 | 0.08 | 0.002 | *** |
| Land size | +/- | Acres | 0.02 | 0.02 | 0.422 | |
| Monthly income of participant | + | Log | 0.09 | 0.05 | 0.052 | * |
| Years of schooling | + | Continuous | -0.02 | 0.04 | 0.627 | |
| Location dummies (omitted=Kono) | | | | | | |
| Koinadugu district | +/- | Yes=1 | -0.53 | 0.31 | 0.089 | * |
| Kailahun district | +/- | Yes=1 | -0.72 | 0.30 | 0.020 | ** |
| Constant | | | 5.35 | 1.06 | 0.0001 | *** |
| Mean dependent var | 5.975 | SD dependent variance | | | 1.209 | |
| R-squared | 0.211 | Number of observations | | | 118 | |
| F-test | 2.575 | Prob > F | | | 0.006 | |

***p<.01, **p<.05, *p<.1



Picture 4, 5, 6: Other enterprises supported by the B-Loop project

Discussion & Summary

- Entrepreneurs were mostly involved in crop production and marketing of raw agricultural produce with limited value addition.
- Income, gender, age, gender of the household head, production diversity score and location significantly influenced dietary diversity.
- Income significantly influenced dietary diversity positively; income increases access to nutritious foods (Hoddinott and Haddad, 1995).
- Intervention group consumed more staples (e.g. rice, cassava, plantain etc.).
- Consumption of meat products was almost the same in both treatment and control groups.

Conclusion

- ✓ Income from youth employment promotion programs have a positive effect on dietary diversity.
- ✓ Even though an increase in income is crucial to improving dietary diversity in developing countries, outcomes can be improved if programs focus on women inclusion and nutrition education.

References

1. FAO. (2016). Minimum dietary diversity for women: a guide for measurement. Rome: FAO, 82.
2. Hoddinott, J., & Haddad, L. (1995). Does female income share influence household expenditures? Evidence from Côte d'Ivoire. *oxford Bulletin of Economics and Statistics*, 57(1), 77-96.
3. Koppmair, S., Kassie, M., & Qaim, M. (2017). Farm production, market access and dietary diversity in Malawi. *Public health nutrition*, 20(2), 325-335.

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