



Diet Quality and Food Security Pattern among Fulani Households in Northern Benin: A longitudinal survey using pictograms



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Introduction

- Food and nutrition insecurity remain critical challenges globally, particularly in Africa (FAO et al., 2024).
- In Benin, food insecurity has worsened from 2017 to 2022: over 25% of households affected and 83% unable to afford healthy diet, particularly in rural northern regions (WFP, 2023; WFP & INStAD, 2022; GIZ, 2020).
- Pastoralist communities like the Fulani play a key role in food systems but are often excluded from nutrition data due to their nomadic lifestyle.
- Analyse seasonal food security and dietary diversity among settled Fulani households in Northern Benin

Methods

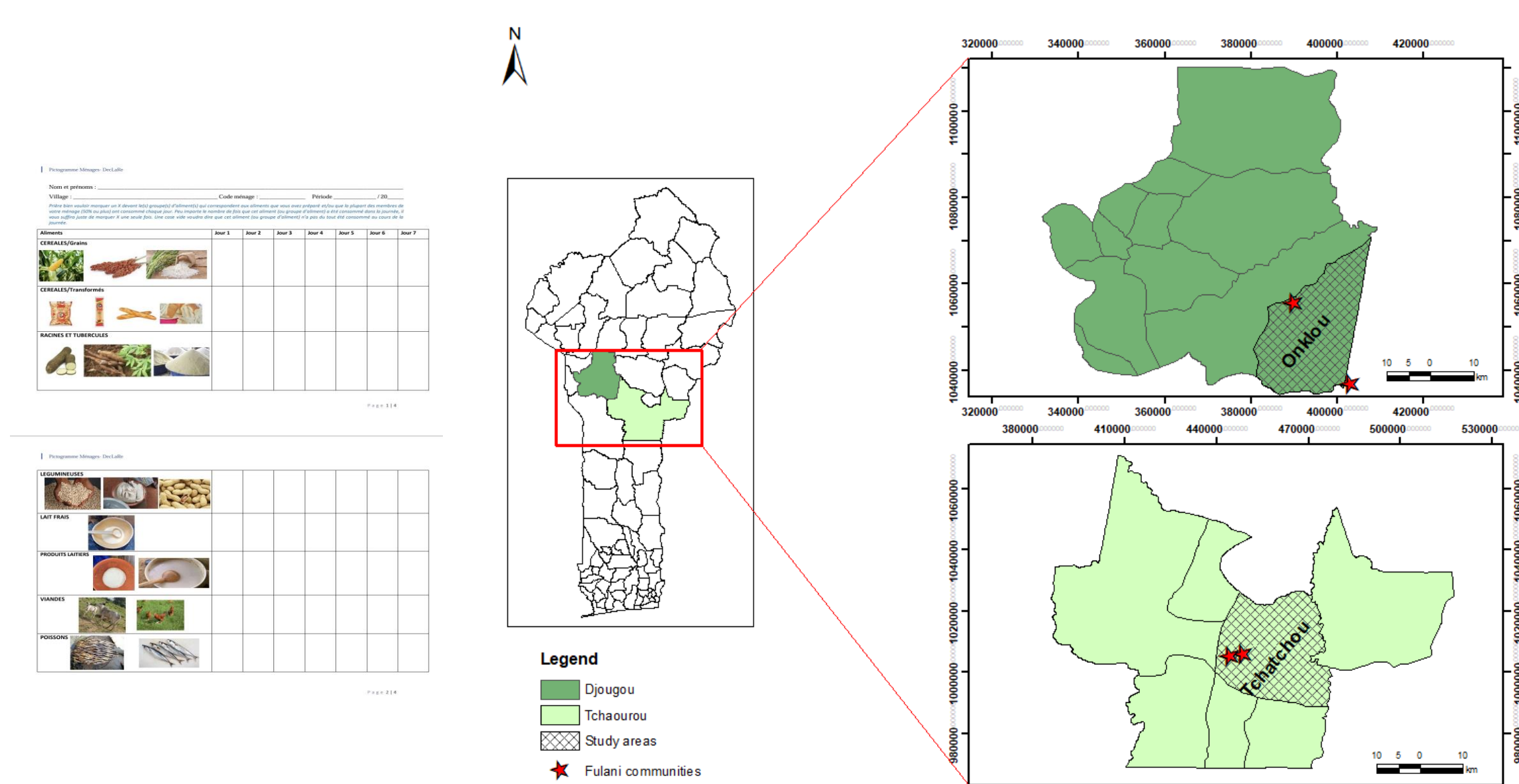


Fig. 1. Map of Benin indicating location of the study municipalities and districts.

May – September 2023

Door to door Census (snowball sampling) (161 households)

Voluntary and informed consent

No plan to leave or engage in transhumance

Baseline food data + Pictogram design and validation

October 2023 – September 2024

Monthly food consumption data (157 households)

Pictogram-based questionnaire

Households Dietary Diversity Score (HDDS)

Food Consumption Score (FCS)

Food consumption frequency with a focus on Animal Source Foods (ASF)

Descriptive statistics, Kruskal-Wallis and Wilcoxon-Mann-Whitney tests following by Dwass-Steel-Critchlow-Fligner Test were conducted using STATA/SE 15

Results & Discussion

- Households in both communities display good level of dietary diversity over time (HDDS > 6) although seasonal variation was observed.

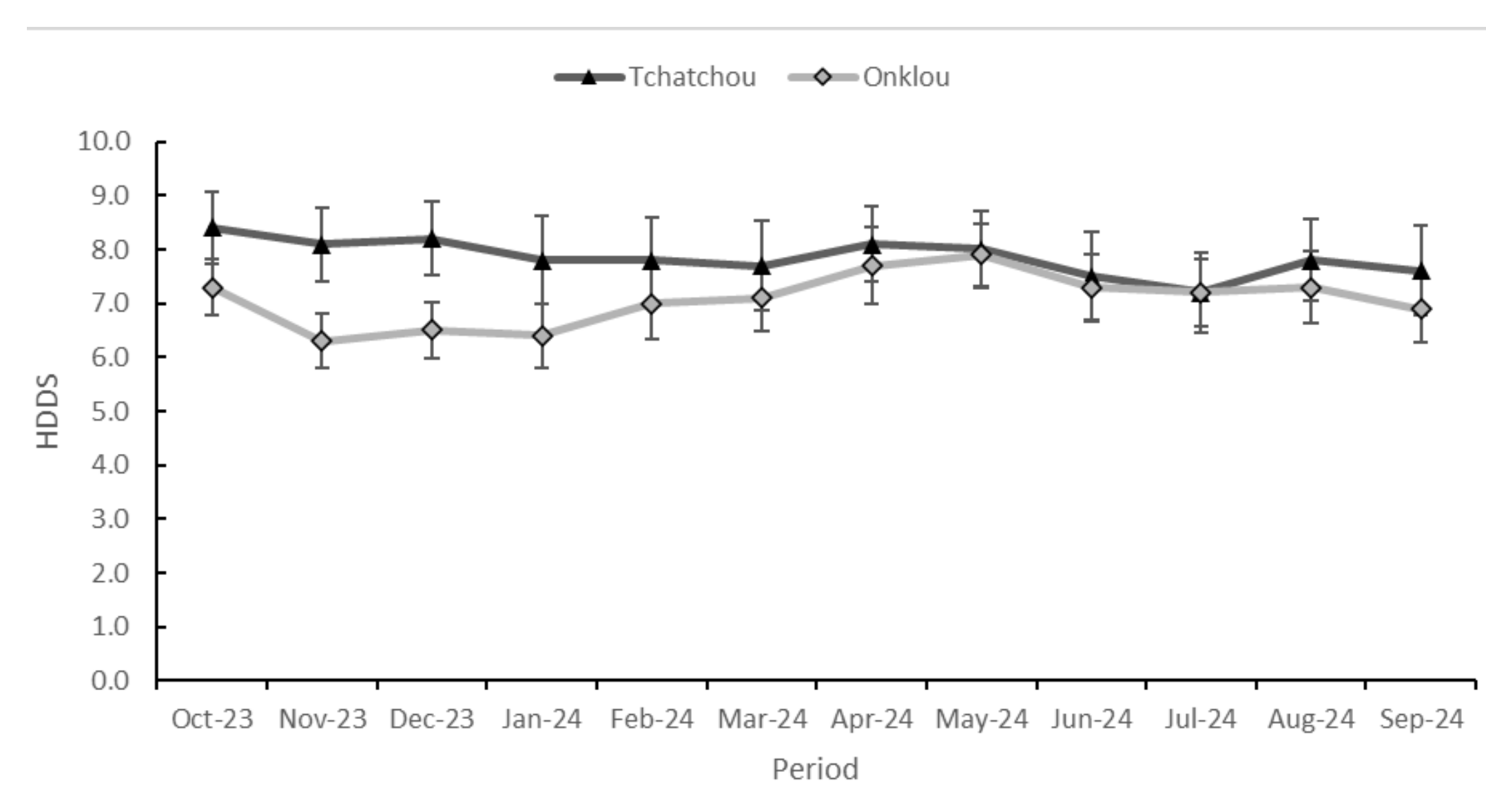


Fig. 2. Seasonal variation of households' dietary diversity score in the selected communities.

- Dairy products = most consumed animal-source foods (ASF) by households although it is subject to seasonal variation. Lowest frequencies were recorded between January and March 2024, coinciding with the dry season.
- Meat and Fish were more consumed by households in Tchatchou than those in Onklou.

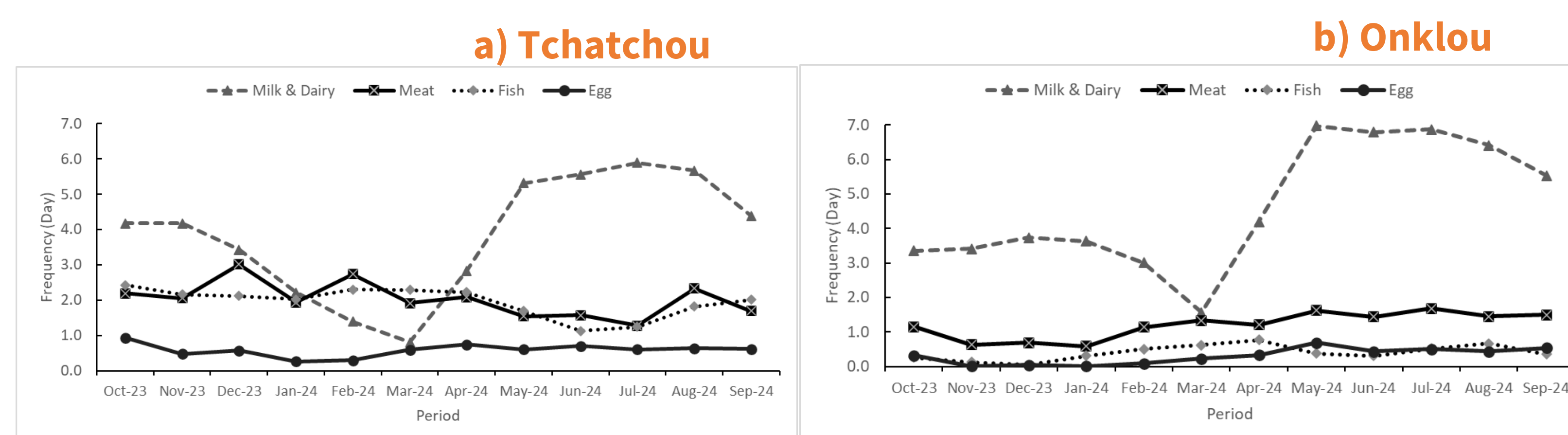
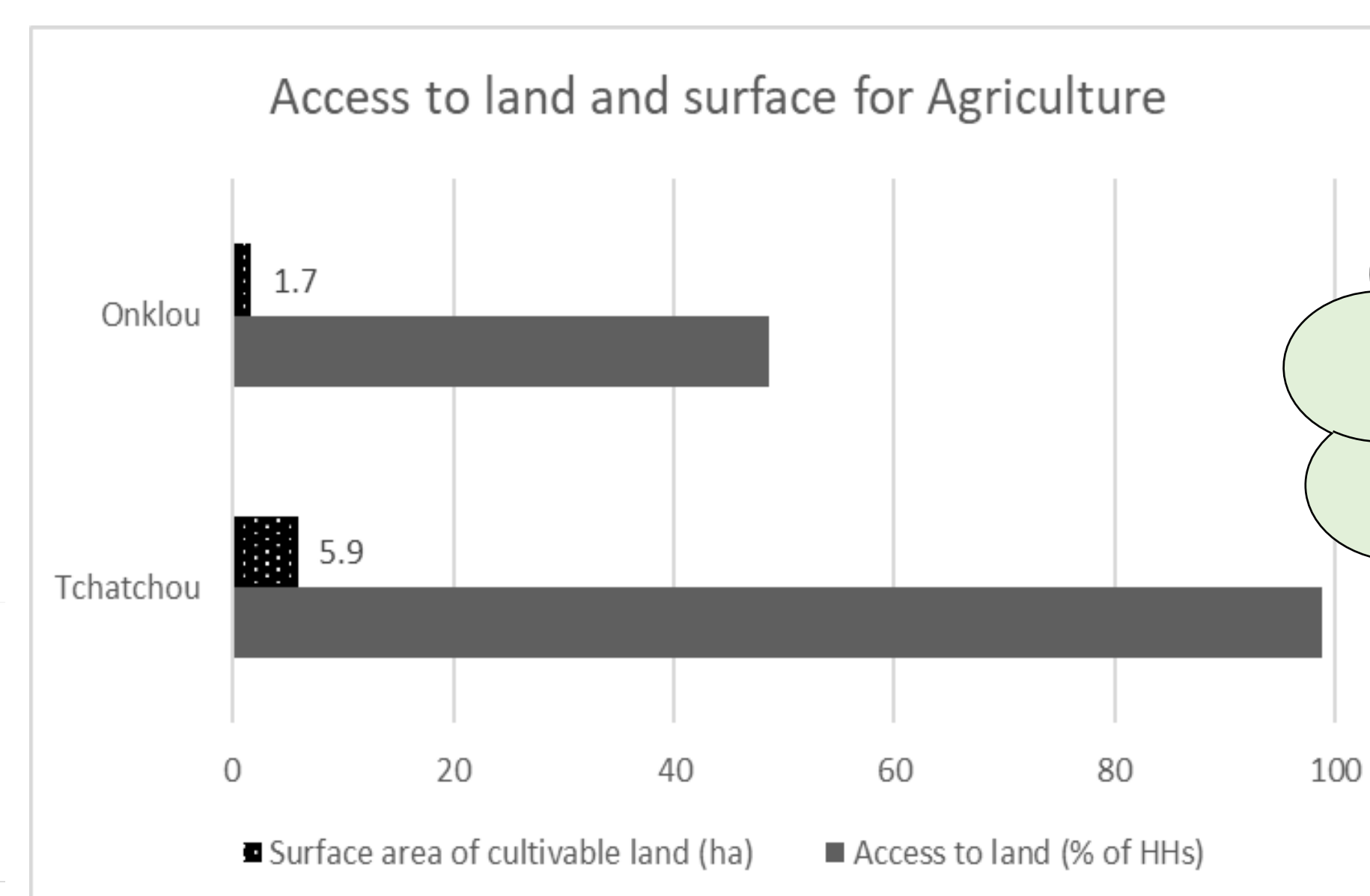


Fig. 3. Weekly frequency of consumption of Animal Source Foods in the selected communities.



Households in Tchatchou have better access to land for agriculture than households in Onklou

Conclusion

Despite relatively high dietary diversity, the consumption of animal-source foods remains low. Seasonal variations were found to influence household dietary patterns.

References:

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