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**CONFERENCE**



agriculture, land reform  
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Department:  
Agriculture, Land Reform and Rural Development  
REPUBLIC OF SOUTH AFRICA

Science transforming food systems for a better future



# **The Influence of large-scale agricultural investment on household food security in Nanyuki area of Kenya**

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# Outline

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Background

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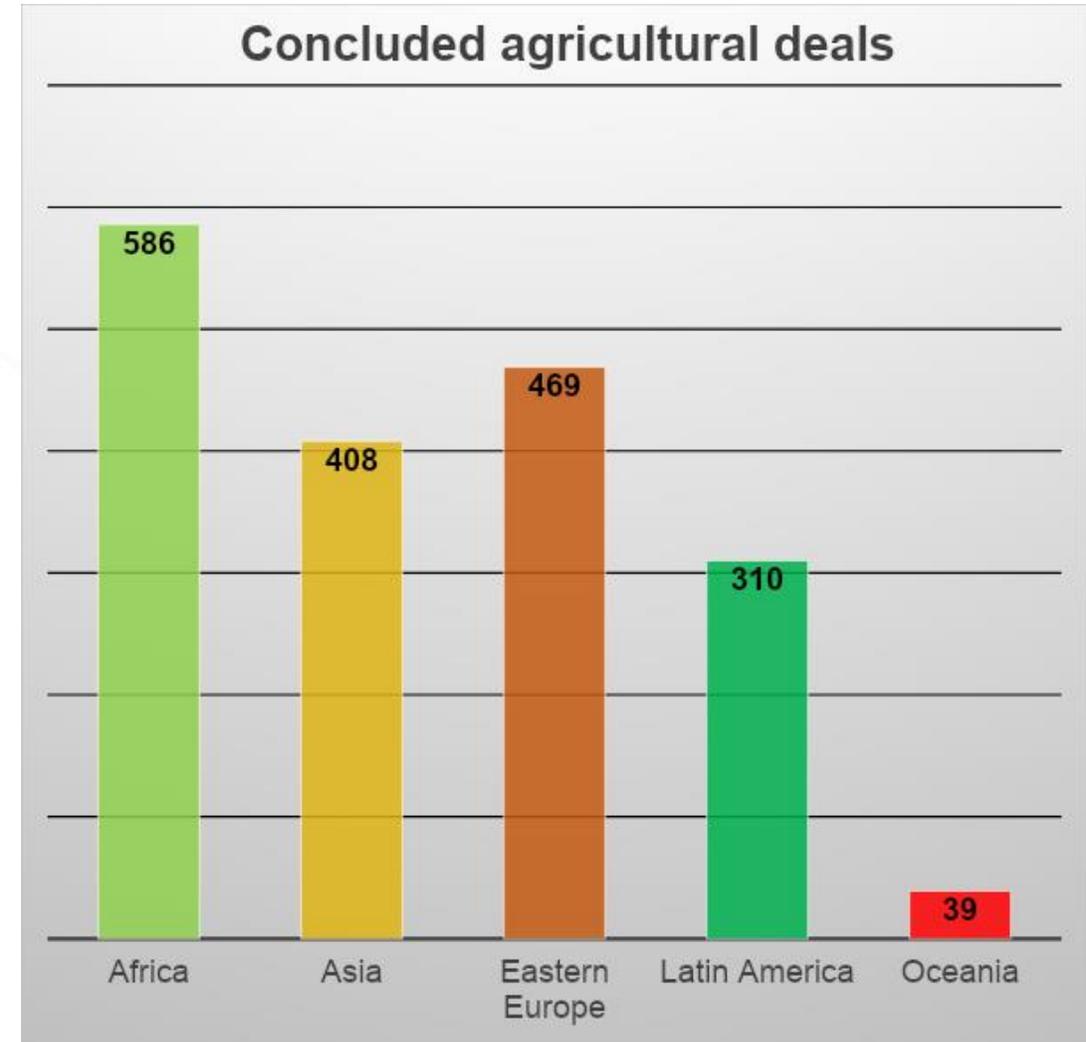
Results

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Conclusion and recommendation

# Background-Large-Scale Agricultural Investment

- ❖ 2007/2008 global food, fuel and financial crisis
- ❖ Acquisition of Large-Scale Agricultural land in developing counties
- ❖ Concessions of more than 20 ha with time line of 25 to 99 years
- ❖ Foreign investors from Europe, North America, South America, the Gulf and East Asia.
- ❖ Land Matrix –trend of African being targeted





# Background Continue

- ❖ Investor drivers-food security, biofuel, carbon markets, market speculations
- ❖ Host country drivers-opportunities to modernised agriculture sector, tax breaks
- ❖ Host countries are net food importers and food aid recipients
- ❖ Studies done in Africa focused: land tenure, environment, livelihood etc
- ❖ Limited empirical evidence on Food Security

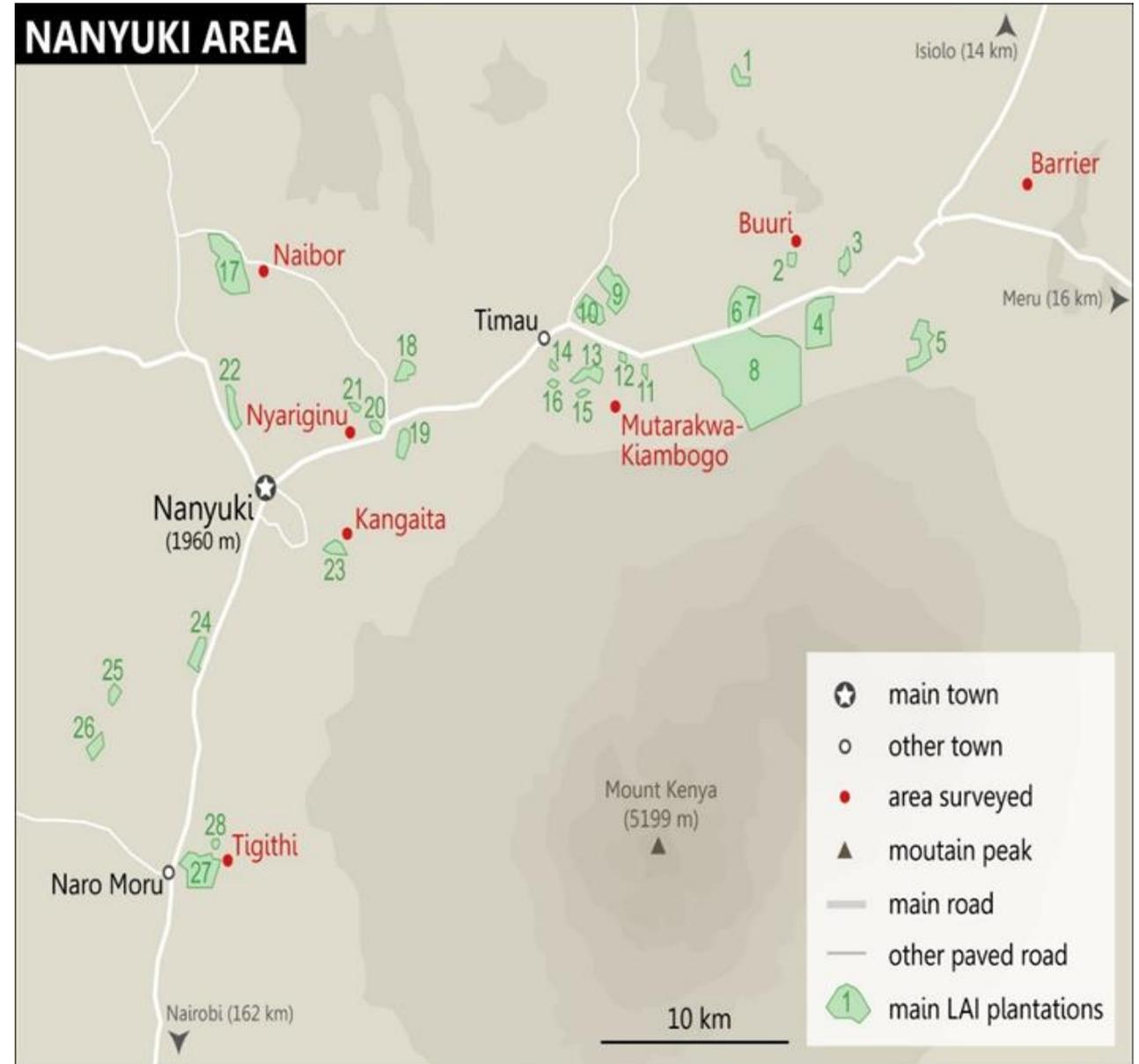


# Objectives

- ❖ Compare food security status of households in factual zone with counterfactual households
- ❖ Assess the adoption of coping strategies by households in vicinity to large-scale agribusiness investments

# Study Area

- ❖ Presence of Large-scale agricultural companies ( operational ( >10 years) and covered > 200 hectares of land).
- ❖ Agribusiness ( Flowers and Vegetable)
- ❖ Seven sub-locations survey
- ❖ Total of 545 household



# Household Classifications

Groups	Description
Employed	Household living in factual zone and employed in agribusiness company
Contract	Households living in factual zone and participate in contract farming
Non-engaged	Households in factual zone that are neither employee nor contractors
Counterfactual	Households living in a neighbouring community



# Measuring food security

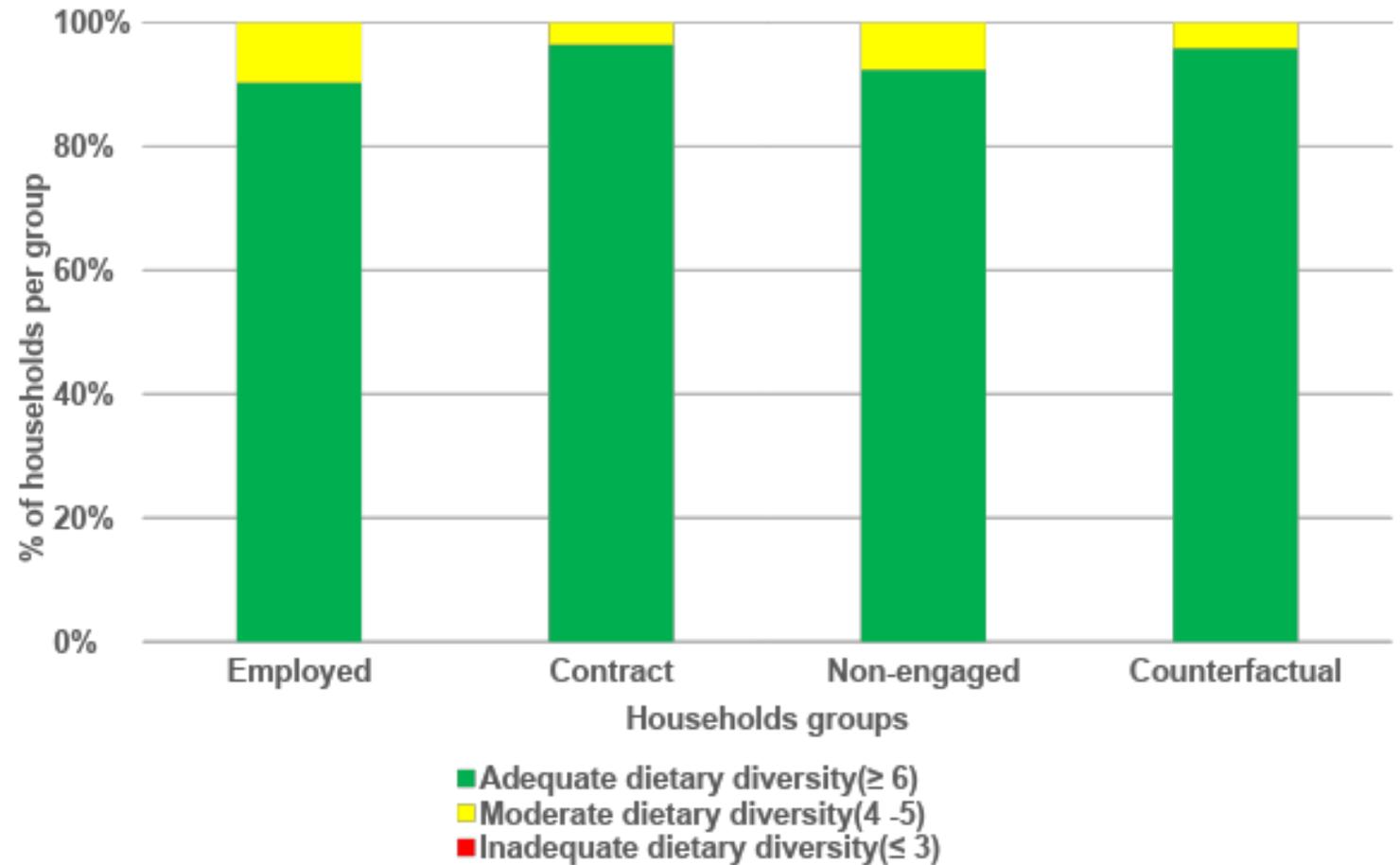
- ❖ Food Security is multidimensional and has no single measure
- ❖ Food security dimensions
  - ❖ Availability
  - ❖ Accessibility
  - ❖ Utilisation
  - ❖ Stability
  - ❖ Agency
  - ❖ Sustainability
- ❖ Seven internationally recognised food security indicators

# Methodology-Food security indicators

Food security Indicators	Recall Period	Description
Dietary Diversity Score (HDDS)	24 hours	Assess diet quality thereby capturing number of food groups consumed
Food Consumption Score	7 days	Sum of consumption frequency of food groups multiple by assigned weight (nutritional value)
Women Dietary Diversity Score	24 hours	Assessed micronutrient diet adequacy in women of reproductive age (15-49 years of age)
Month of Adequate Provision	12 months	The number of months that the household had access to enough food
Coping strategy-Index	7 days	Measures the severity and frequency of household behaviour when no enough food.
Asset ownership	Current	Measures household level of resilience to cope with shocks.

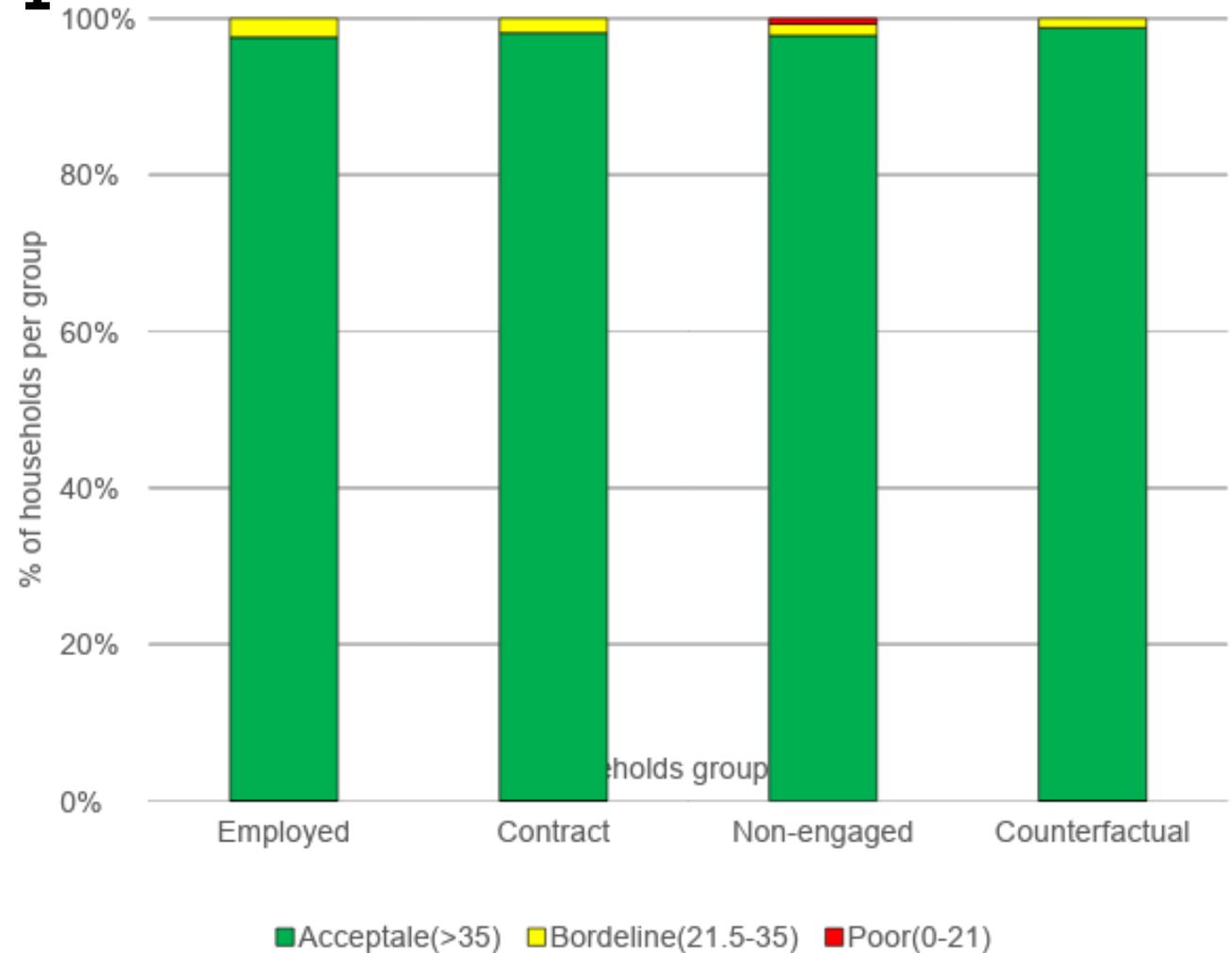
# Results-Dietary Diversity Index

- ❖ Majority of households in all categories – high dietary diversity (> 6 or more food groups consumed)
- ❖ Few households had moderate diets (consumed 4-5 food group)
- ❖ There were no inadequate diets
- ❖ There were statistical significance between groups



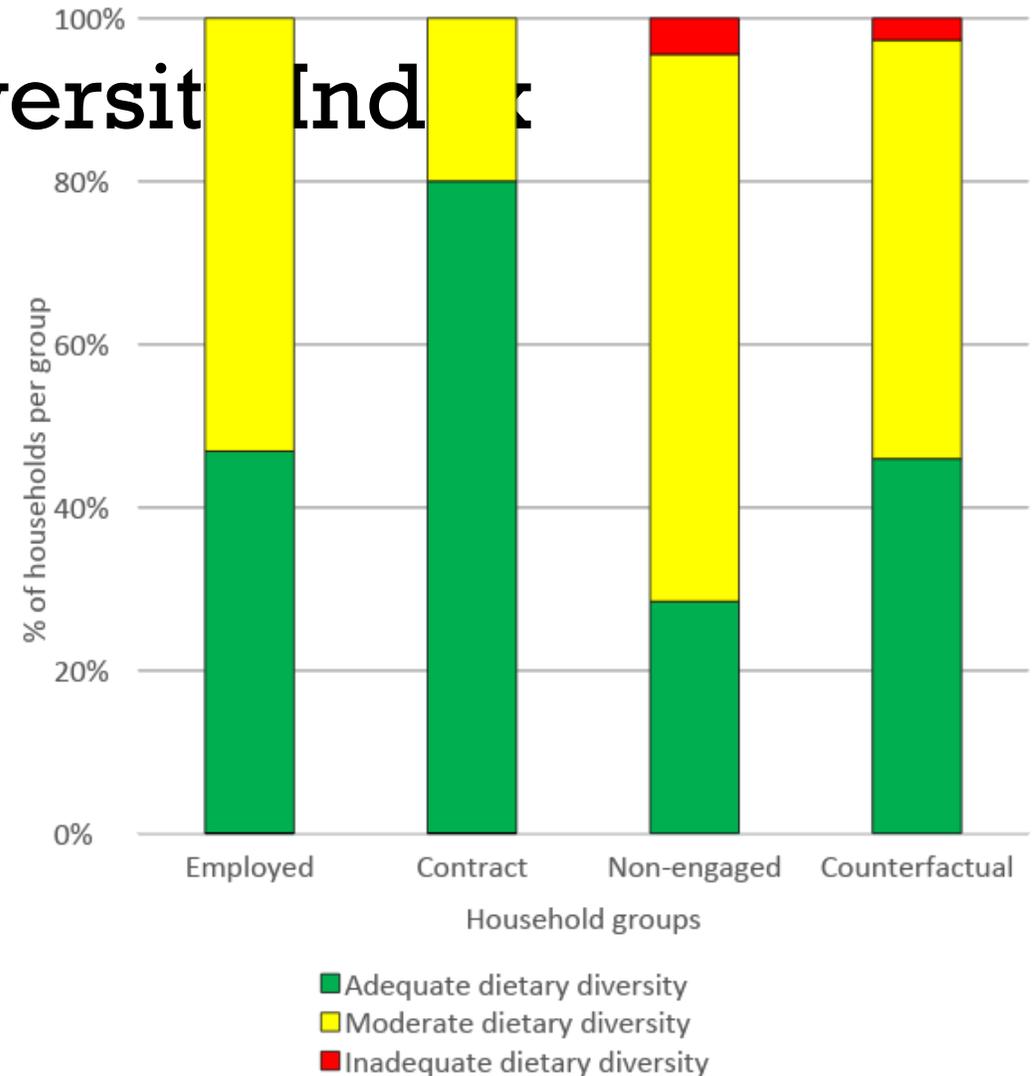
# Results-Food Consumption Score

- ❖ Majority of household(> 90%) had acceptable food consumption
- ❖ Contract and Counterfactual enjoyed quality diet
- ❖ Few non-engaged household had poor diet
- ❖ Statistical significance difference among groups



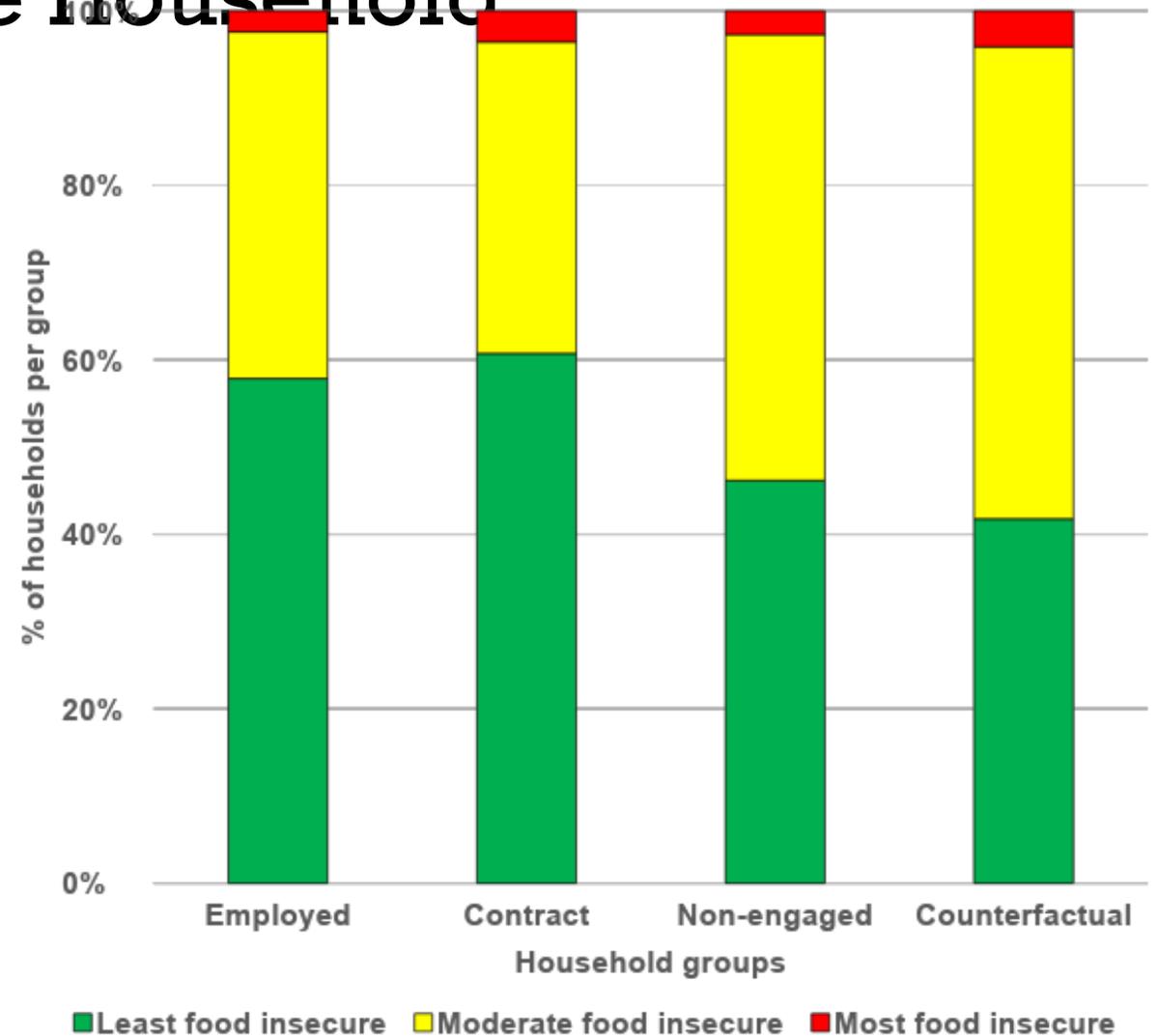
# Results-Women Dietary Diversity Index

- ❖ High proportion of female-headed contract households (adequate diets(6 or more food groups))
- ❖ Two-thirds of non-engaged fell into moderate dietary diversity (4-5 food groups)
- ❖ None of employed or contract females had low dietary diversity(< 3 food groups)
- ❖ Few females in Non-engaged and Counterfactual areas experienced inadequate diets.



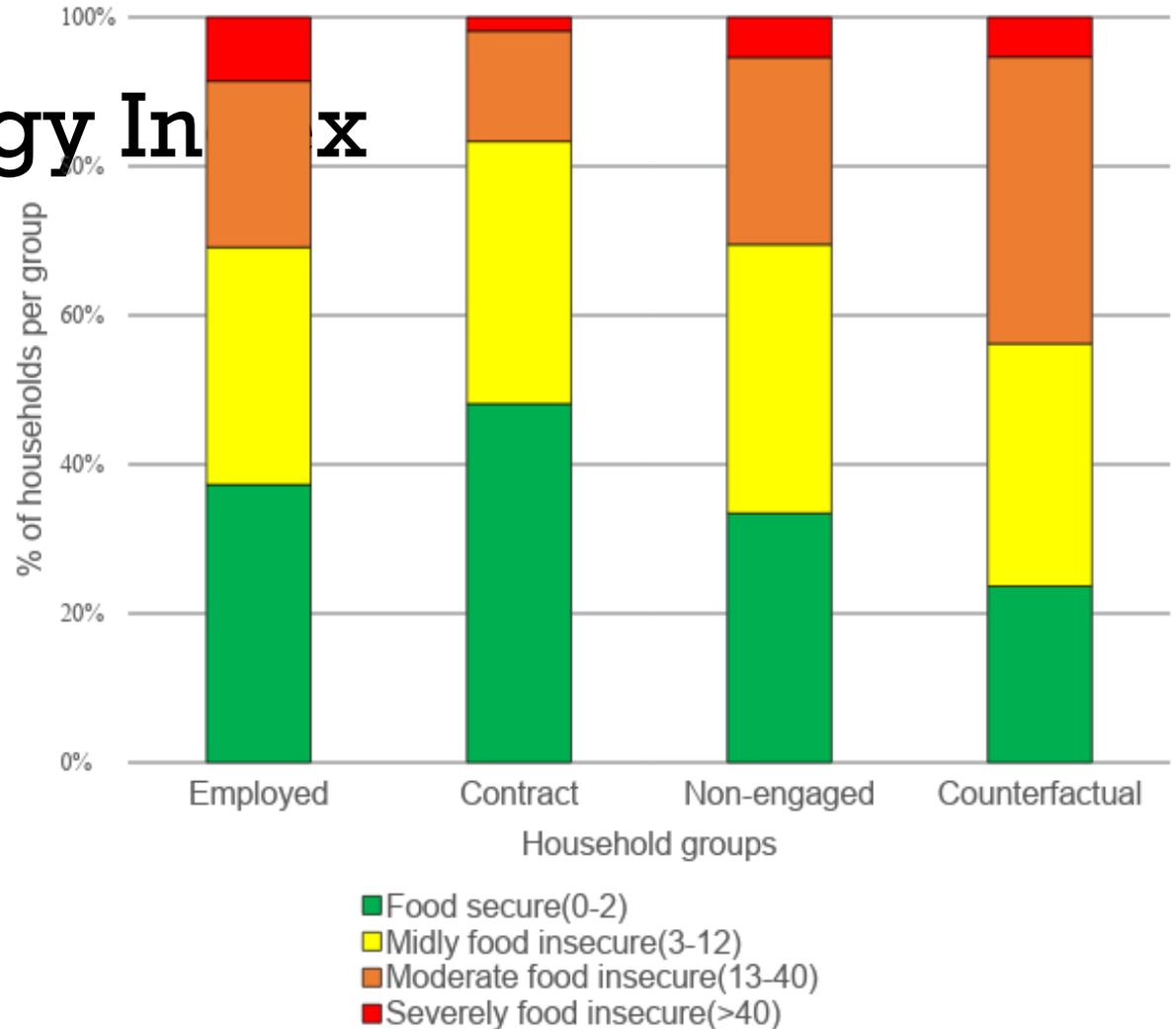
# Results- Month of Adequate Household Food Provision

- ❖ High proportion of employed and contract households had food access (> 10 months)
- ❖ Non-engaged and counterfactual experienced moderate food insecurity
- ❖ Few households fell under the most food insecure category (counterfactual and contract)
- ❖ There were statistical significance difference among groups HH.



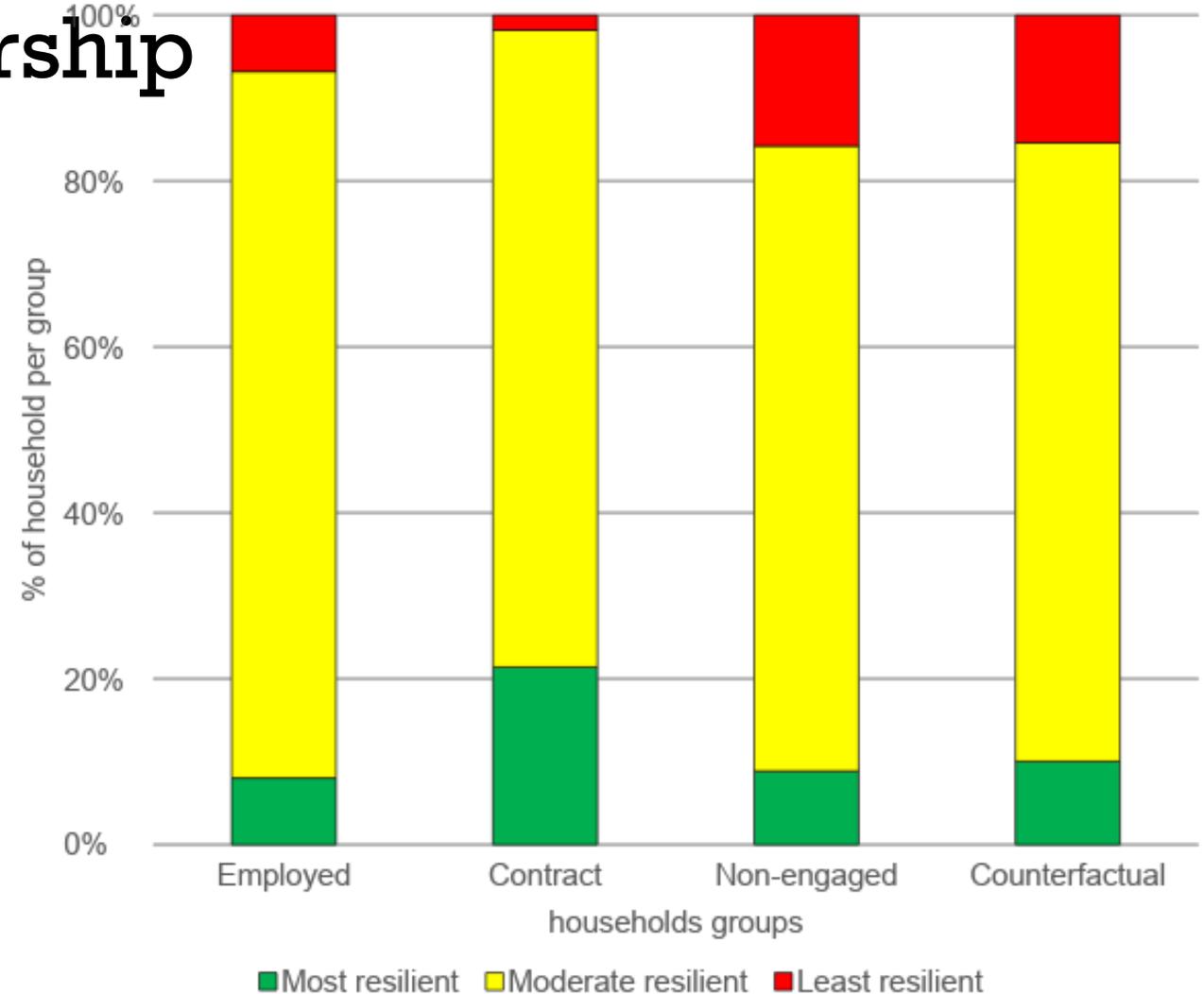
# Results-Coping Strategy Index

- ❖ Contract household were classified as food secure(CSI 0-2 coping strategies)
- ❖ Roughly same proportion of households were mildly food insecure
- ❖ Most of Counterfactual were moderately food insecure( rationed food)
- ❖ Small percentage of employed HH were severely food insecure( severe coping strategies)



# Results-Asset Ownership

- ❖ Contract households had more assets and regarded as resilient in the face of shocks
- ❖ Non-engaged and counterfactual were least resilient (3-6 asset ownership)
- ❖ There were statistical significance among groups





# Conclusion and recommendation

## ❖ **Conclusion**

- ❖ Lack of baseline study, difficult to draw a positive effect on household food security
- ❖ Agribusiness strengthen food security for contract farmers

## ❖ **Recommendation for further studies**

- ❖ Panel data, pre and post data that can assess food security status across different time period

## ❖ **Recommendation for policy**

- ❖ Inclusion of women participation in agribusiness
- ❖ Monitor agribusiness and ensure the welfare of local communities not compromised.

# Acknowledgement

- ❖ Land Matrix
- ❖ University of Pretoria
- ❖ University of Bern

