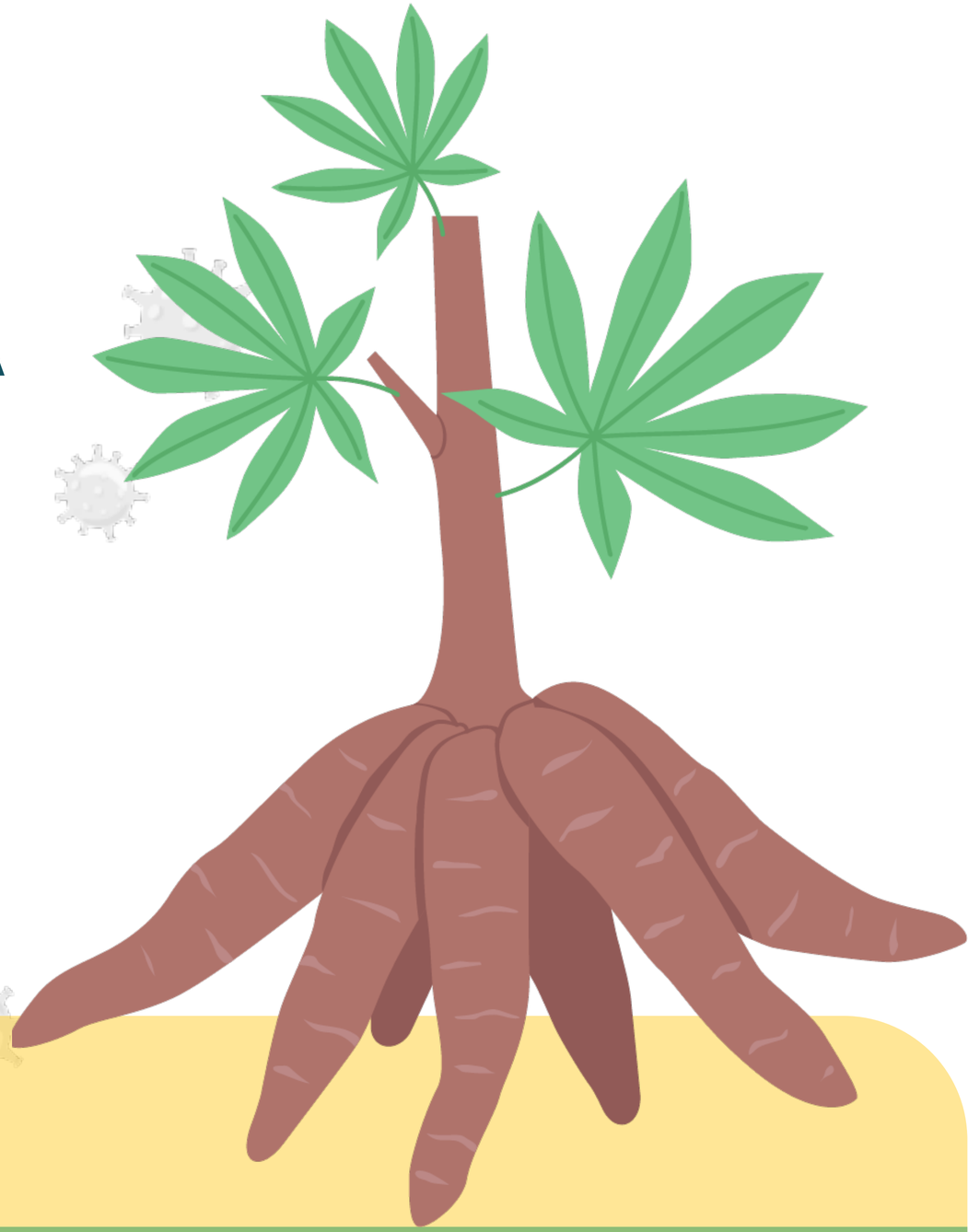
# CAMBODIAN CASSAVA AND COVID-19:

## An Analysis of Production, Productivity, and Gender

Kosal Nith and Yuki Kanayama



IDRC · CRDI
International Development Research Centre
Centre de recherches pour le développement international

Canada

CDRI
Cambodia Development Resource Institute

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# 1. BACKGROUND OF THE STUDY

A

## Great Recession

- Affected the global economy, health care, and households' livelihood.
- In Cambodia, surprisingly, AGRICULTURE has grown-share GDP:
  + 2020: 22.7%
  + 2021: 22.8%
  + 2019: 20.7%

B

## Gaps in Understanding

- How much Covid-19 impacted agriculture?
- Why did agriculture grow during the difficult time?

C

## Gaps in Literature

Impacts of the pandemic on rural households' economic activities by focusing attention on cassava producers.

# 1. RESEARCH QUESTIONS

**RQ1** How were the effects of Covid-19 on production, productivity, and gender participation in cassava?

**1.1** How does the government measure and intervene during COVID-19 affected production, productivity, and gender participation in Cassava?

**1.2** What will happen to production, productivity, and gender participation in cassava after the pandemic?

**1.3** What are the best alternative policies for developing cassava production, productivity, and gender participation?

# 2. METHODOLOGY AND DATA

A

### Descriptive Analysis

to make a comparison of cassava production, productivity, and gender before the pandemic and during the pandemic.

B

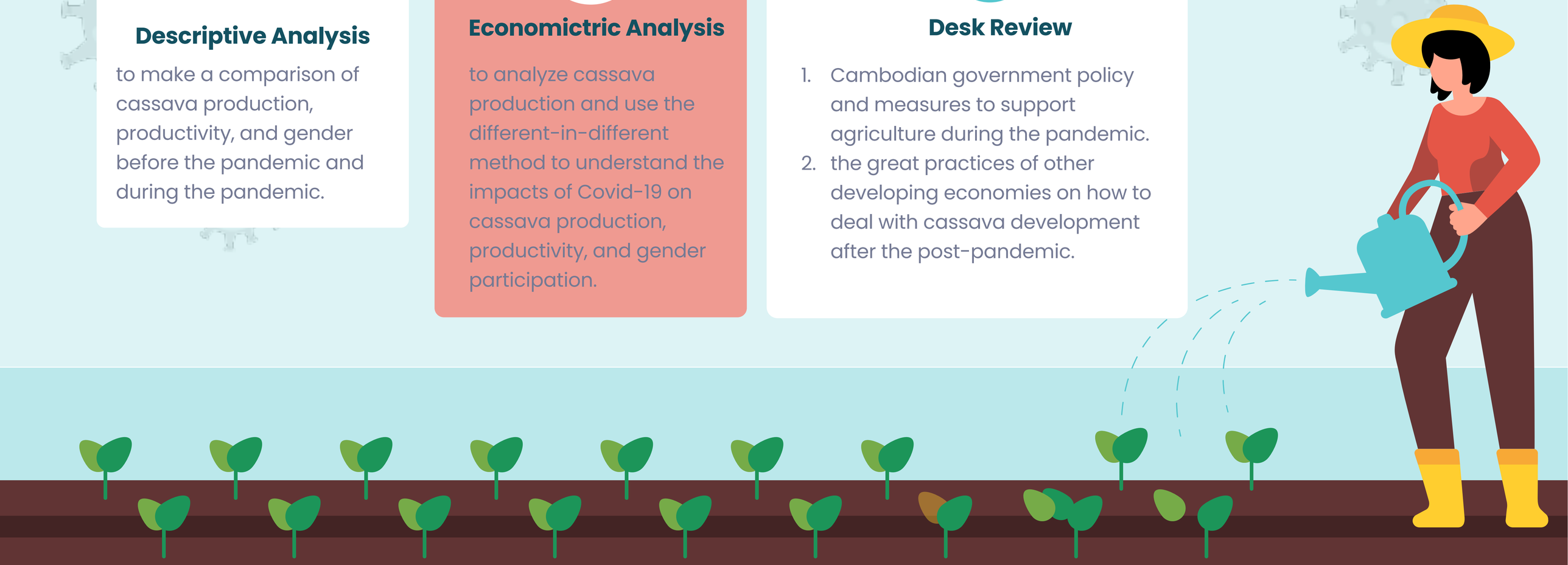
### Economictric Analysis

to analyze cassava production and use the different-in-different method to understand the impacts of Covid-19 on cassava production, productivity, and gender participation.

C

### Desk Review

1. Cambodian government policy and measures to support agriculture during the pandemic.
2. the great practices of other developing economies on how to deal with cassava development after the post-pandemic.



# 2. METHODOLOGY AND DATA

- The questions were asked in reference to **two specific time periods**.

- Our objective is to capture data from **cassava production, income, expenditure, productivity and gender participation** in the production process of respondents, those who have participated and provided answers to all important questions that are linked to our study objective – the change of cassava production between 2019 and 2021.

- However, phone surveys during the lockdown period may be especially **vulnerable to expected to receive sufficient information**.

- For that reason, we decided to **remove 60.80% of samples** that have no information in line to our objective, because the large majority of samples do not report income, cost on cassava inputs and labour participation in both years, in particular, in 2019.

# 2. METHODOLOGY AND DATA

CDRI’s Cassava Household Phone Survey

N: 5,862 households

n: 768 households and we selected 301 households in which reported information on net income, production cost, and gender participation in cassava

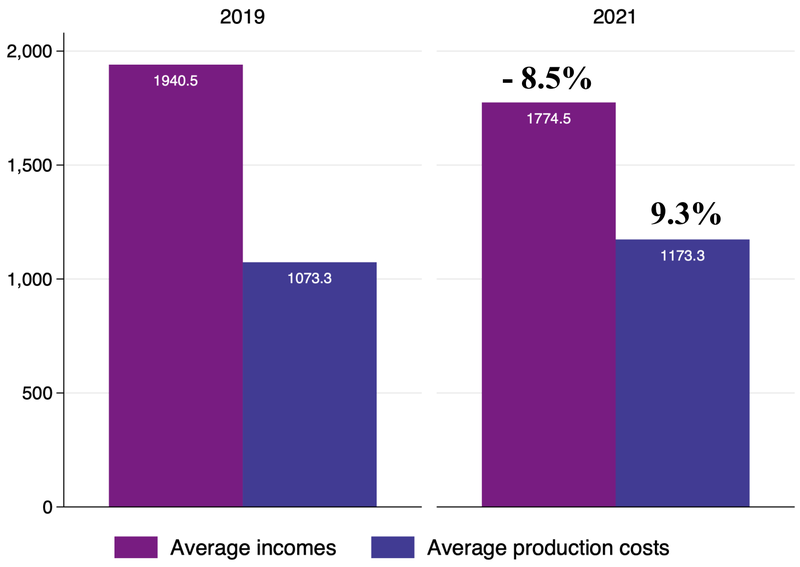
5/25 Provinces: Tboung Khmun, Oddar Meanchey, Battambang, Banteay Meanchey, and Siem Reap

## 3. RESEARCH FINDINGS

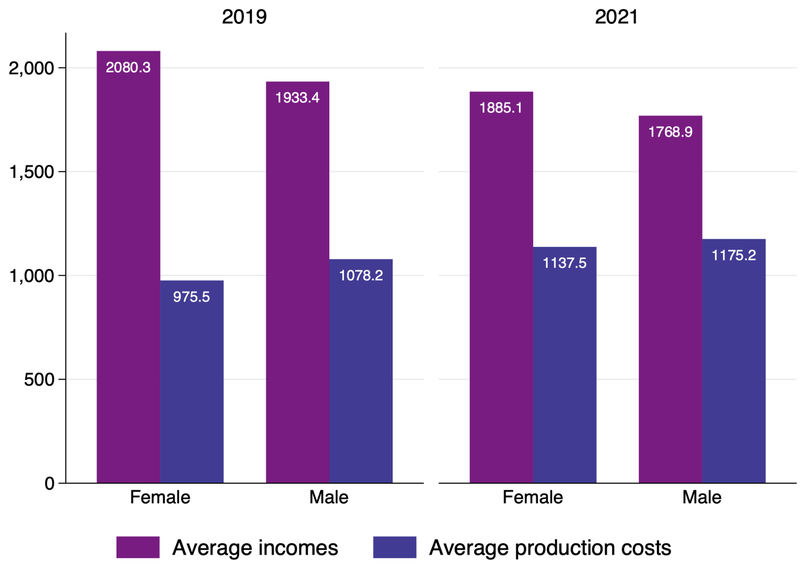
# 1 Change in Cassava Production, Productivity and Gender Participation

# Cassava Net Income and Production Cost

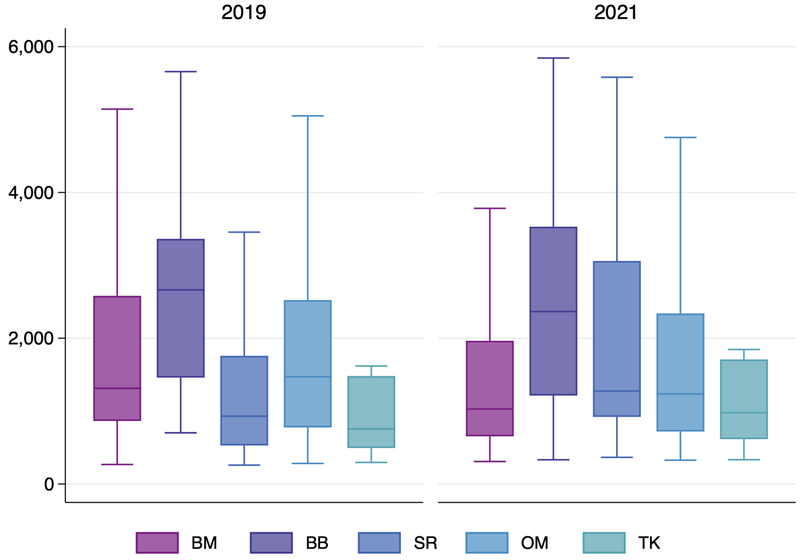
## (a) Average income and cost



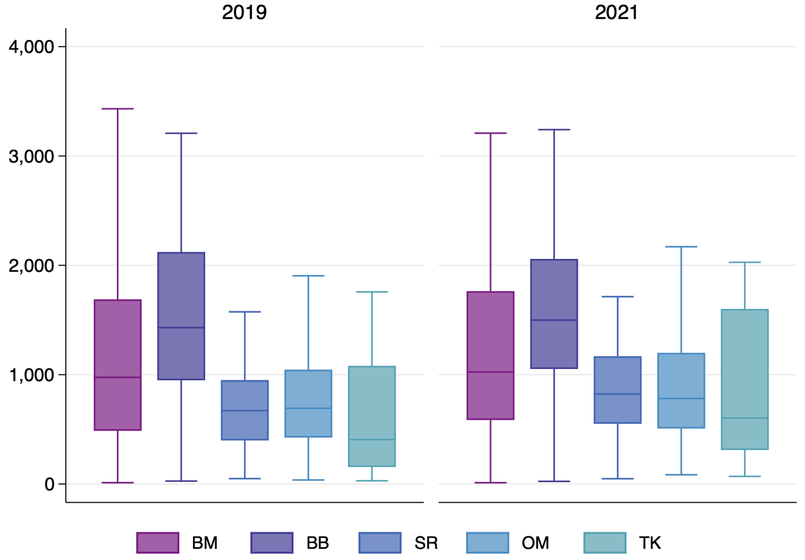

## (b) Average income and cost by gender




## (c) Net income by province

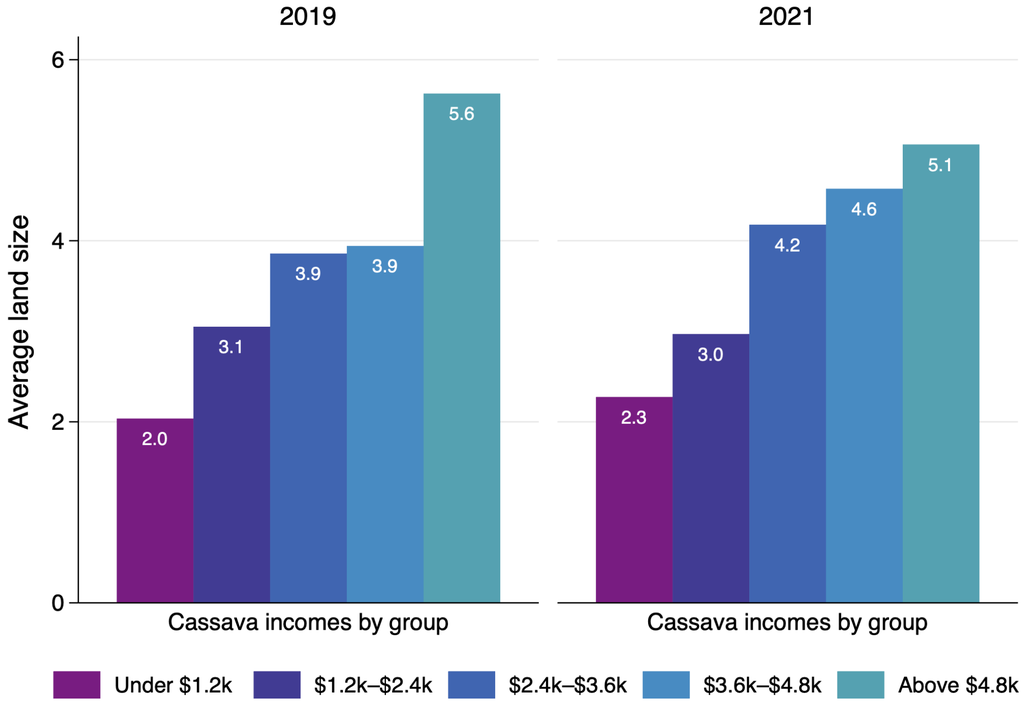



## (d) Production cost by province

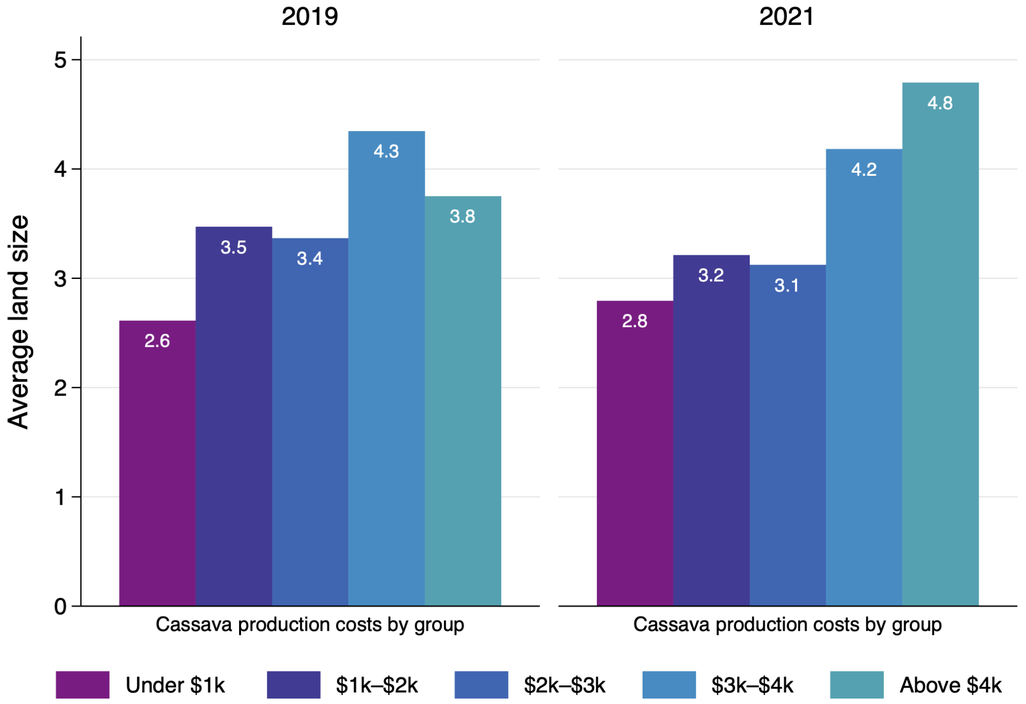


# Average cumulative land size versus net income and production cost by group

(a) Land size and net income

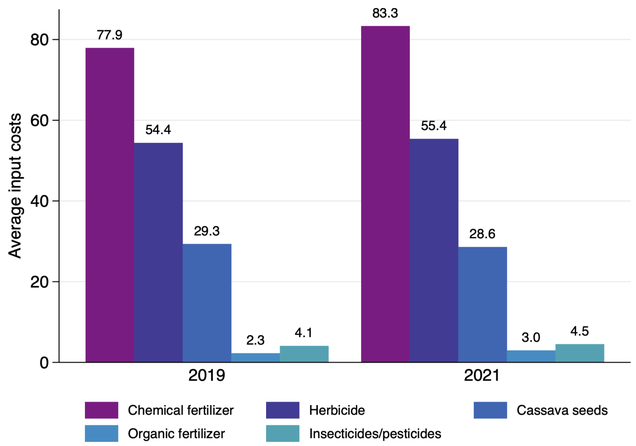



(b) Land size and production cost

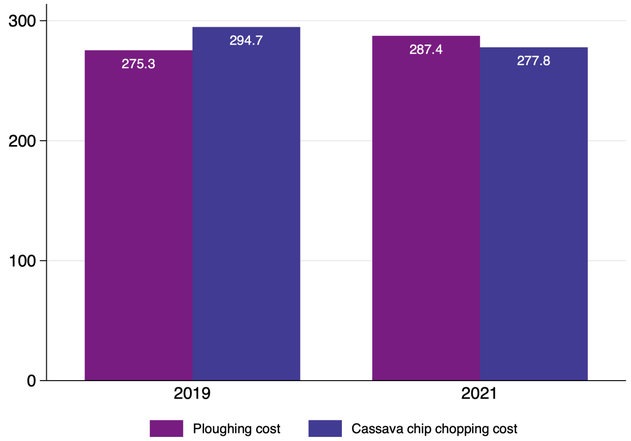


# Production Costs

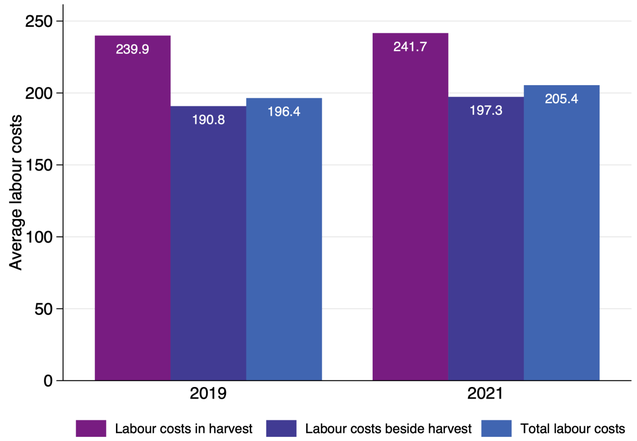
## (a) Input



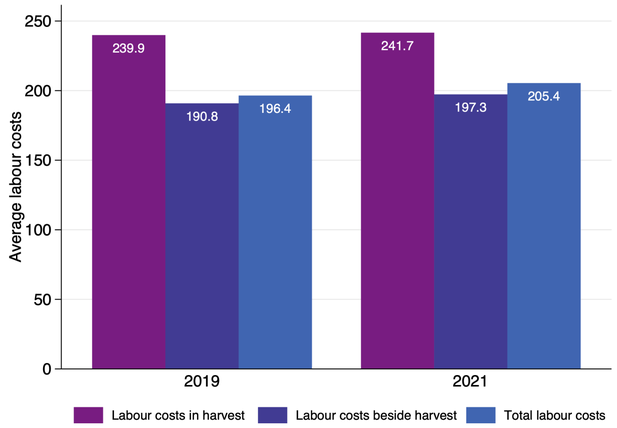

## (b) Ploughing and chopping



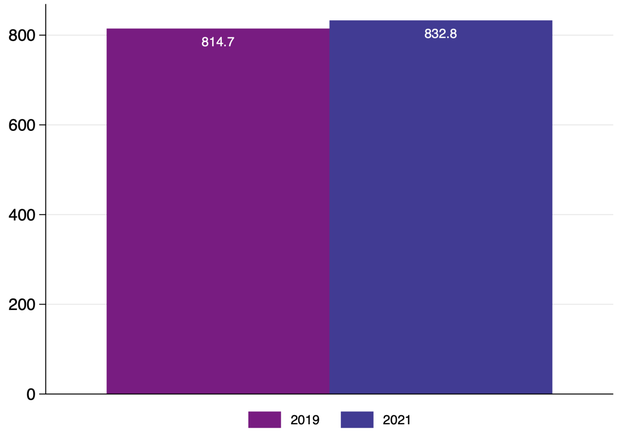

## (c) Labour



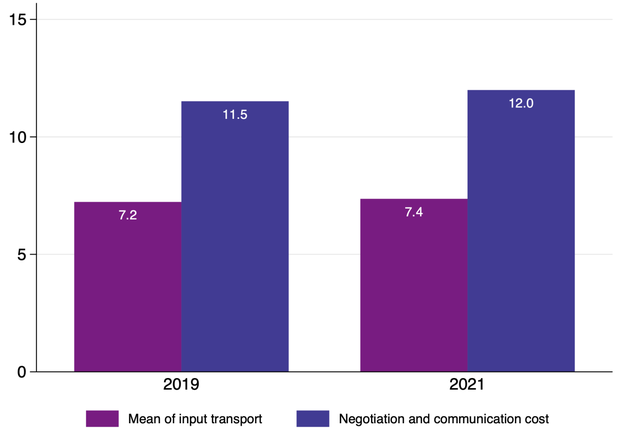

## (d) Transport cost




## (e) Land rent cost

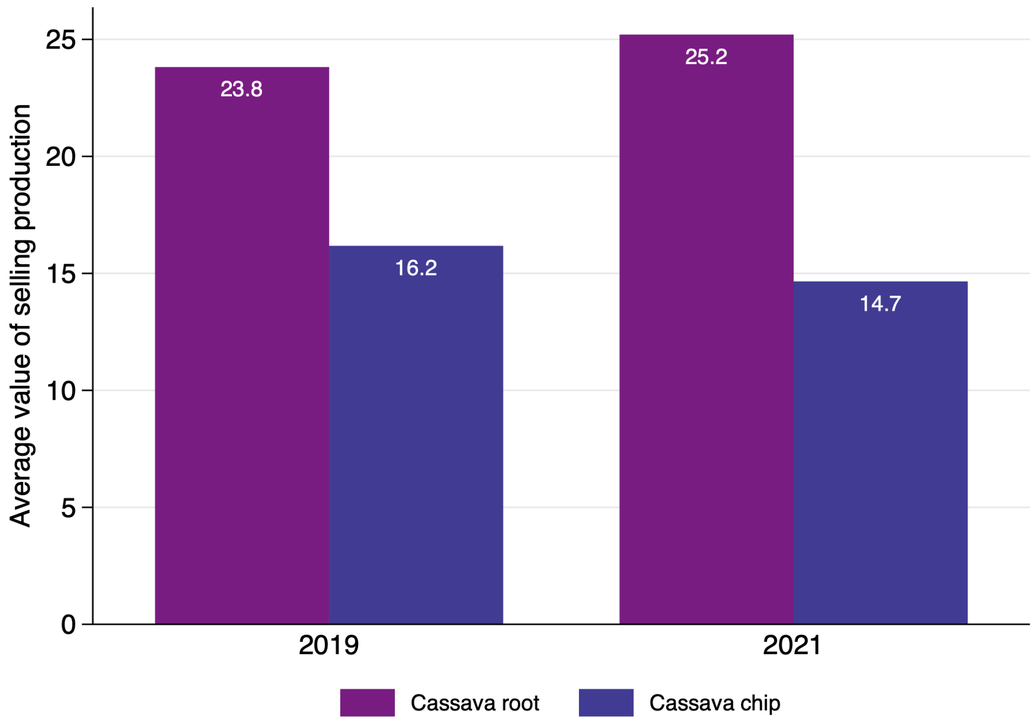



## (f) Input transport and comm

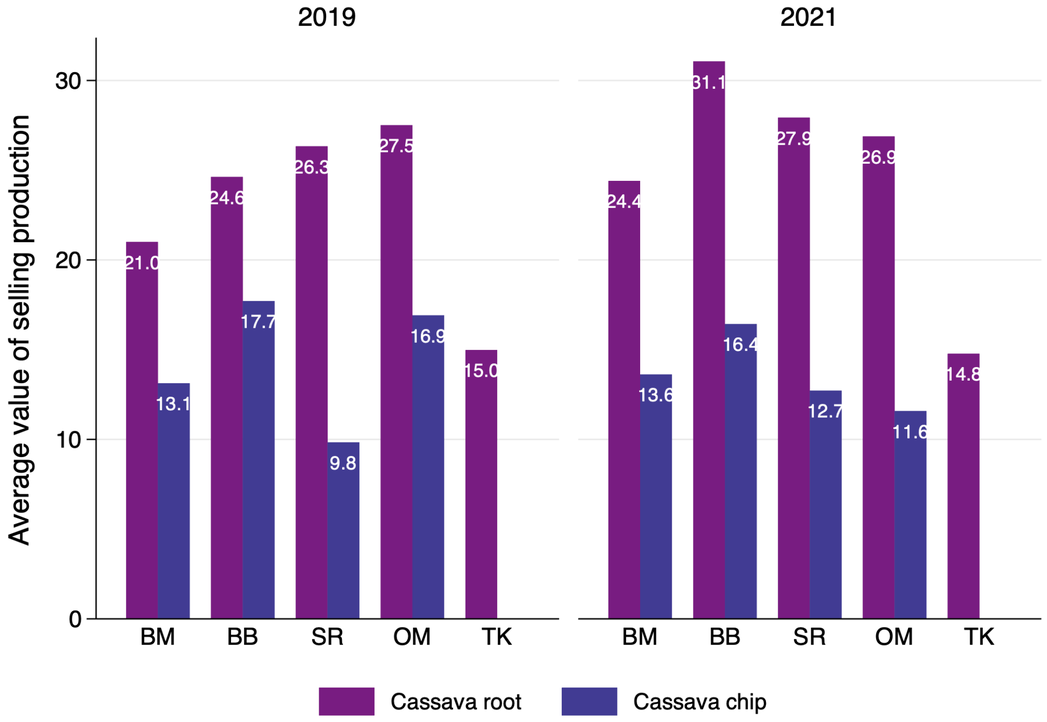



# Change in Productivity: Average value of selling production

## (A) Change in selling by year

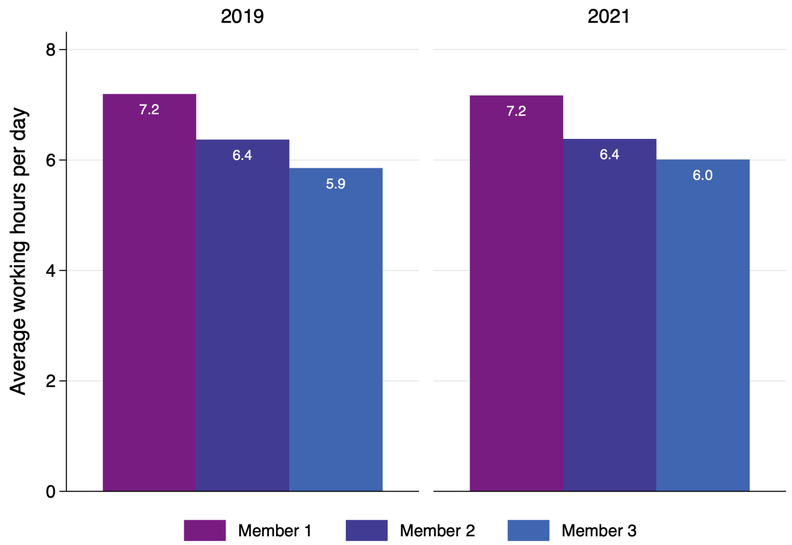



## (B) Change in selling by province

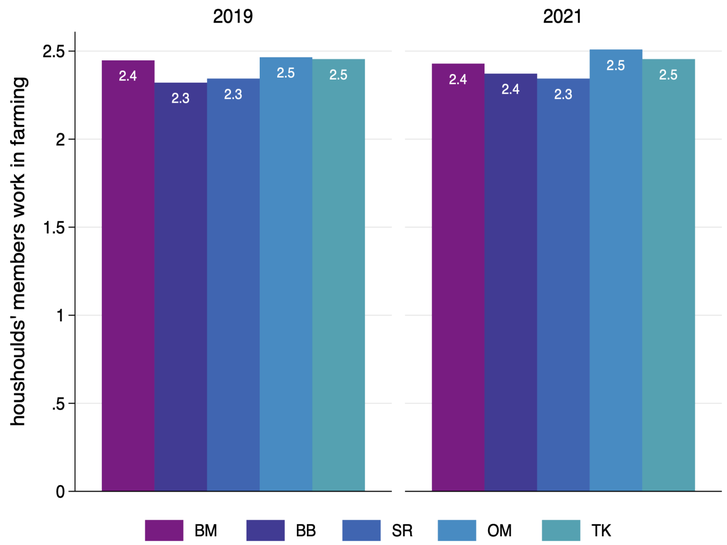


# Change in Productivity: Household member in farming activities

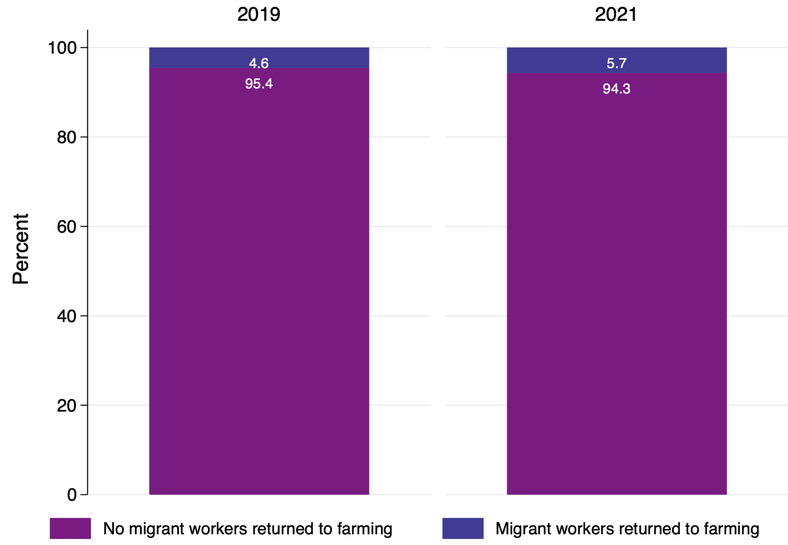
## (A) Average working hours




## (B) Average household members

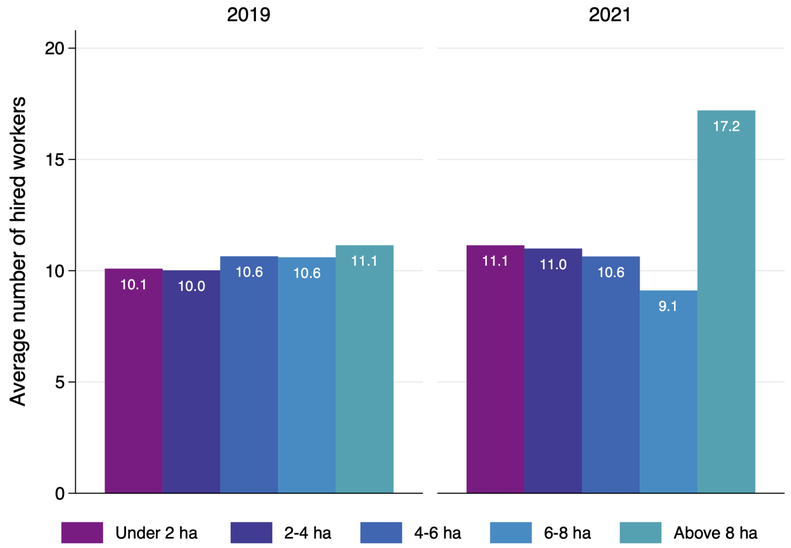



## (C) Migrant workers

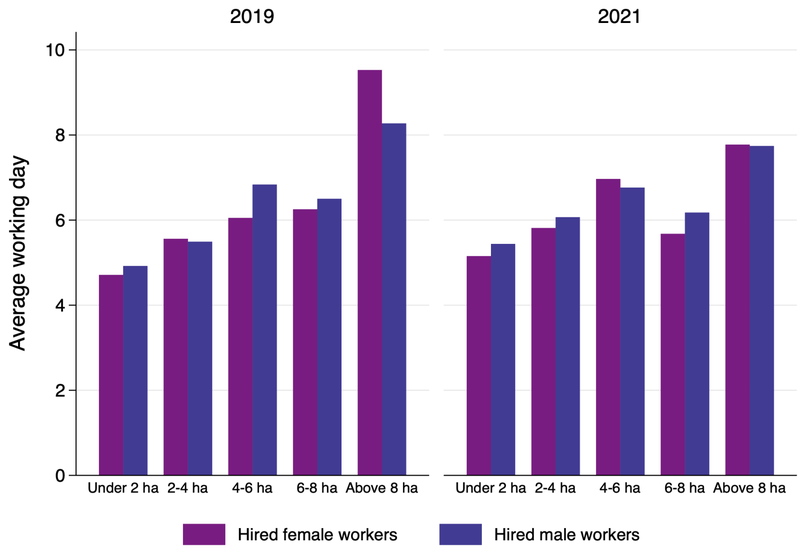


# Change in productivity and labour participation per household

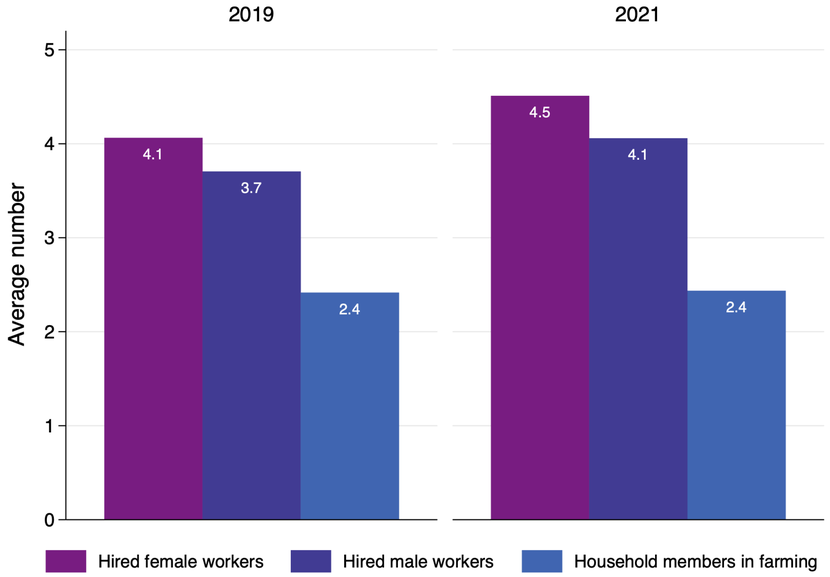
## (A) Number of labour and land size



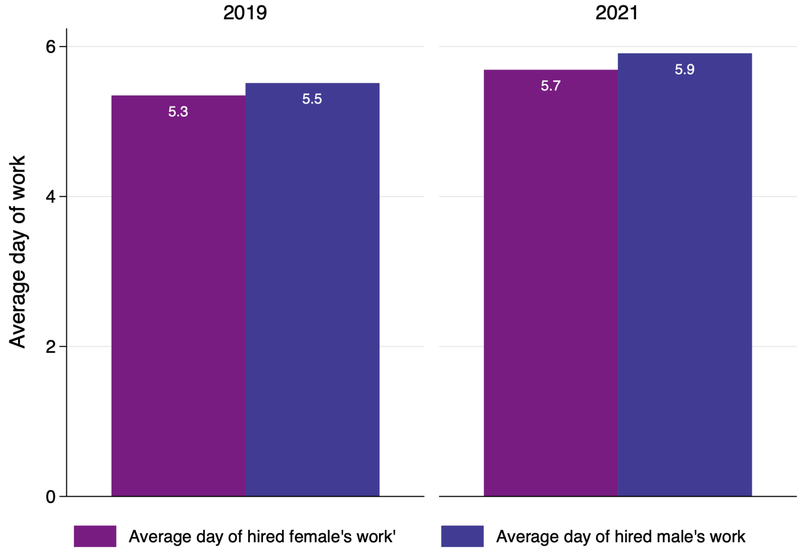

## (B) Working day and land size




## (C) Number of labour by gender




## (D) Working day by gender




# Next Step

(a) We will work on discussion and review relevant policy documents

(b) We will provide policy recommendation.

# Question to Prof. Young Yoon

- How is it possible to remove a large samples that report information we need in the study?

- Could we need the regression for this study? More literature used a fix-effect and D-in-D estimation to evaluate the impact of COVID-19 on household income and consumption.