Impacts of a National Lockdown on Smallholder Farmers’ Income and Food Security: Empirical Evidence from Two States in India

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Impacts of a national lockdown on smallholder farmers’ income and food security: Empirical evidence from two states in India

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Presented by: Samiya Majid
1. Introduction

→ COVID's disproportionate effect on economies worldwide

→ >2/3s of the world's poor depend on agriculture

→ Effect of the COVID lockdown on farmers' livelihood: income, food security, etc.
Haryana

- Dominant winter crop is wheat and is harvested in the first three weeks of April
- Reliance on machinery to get crop
Odisha

→ Winter crops include paddy, pulses, and oilseeds
→ Reliance on manual labor
India’s Response to COVID-19

**March 25th**
Nationwide lockdown announced for a period of 21 days

**March 27th**
Exemption for agricultural and associated activities announced.

**March 15th**
100 confirmed cases in India

**April 14th**
Nationwide lockdown extended, but with localized conditional easing based on number of COVID cases

**April 20th**
Exemption extended for agri-businesses, input supply stores, banks and government centres.

**April 29th**
Guidelines and provisions introduced to facilitate inter-state movement of people

**April 20th - HARYANA**
Staggered procurement of wheat begins at APMC mandis

**May 4th**
Movement of people, private and public transport allowed to resume in less affected zones

**May 7th - ODISHA**
Procurement of limited quantities of pulses and oilseeds begins

Wheat harvest window (All districts, Haryana)

Black gram harvest window (Jajpur district, Odisha)
Challenges for farmers

- *Mandis* or market yards, where farmers sold majority of their crop remained closed
- Interstate movement of goods was delayed
- Local authorities interpreted the new policies in different ways
**Differing Local Policy**

**Haryana**
- Divided up groups of farmers that could enter mandis so it was staggered
- Efforts were made to reach all farmers
- 61% of registered farmers were able to sell their produce through this method

**Odisha**
- Procurement of crops was announced much later than Haryana and much later than the harvest window
- Limited to farmers who could register with agricultural organizations
The Study

➔ Primarily phone based, right after announcement of the lockdown and harvest season in both Haryana and Odisha
➔ Covered 1515 farmers in the two Indian states
➔ Phone surveys were complemented with interviews and review of policy
The Survey

➔ Conducted in farmers primary language

➔ 97% consent rate in Haryana and 100% consent rate in Odisha

➔ 1275 respondents from Haryana and 240 respondents from Odisha

➔ Questioned about access to food during the lockdown and the month before the lockdown.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Haryana (wheat)</th>
<th>Odisha (black gram)</th>
</tr>
</thead>
<tbody>
<tr>
<td>... Harvest earlier than normal</td>
<td>11%</td>
<td>57%</td>
</tr>
<tr>
<td>... Harvest later than normal</td>
<td>32%</td>
<td>35%</td>
</tr>
<tr>
<td>... Spend more on harvest</td>
<td>41%</td>
<td>80%</td>
</tr>
<tr>
<td>... Spend more on labor for harvest</td>
<td>25%</td>
<td>73%</td>
</tr>
<tr>
<td>... Spend more on machinery for harvest</td>
<td>23%</td>
<td>38%</td>
</tr>
<tr>
<td>... Spend more on transport to the market</td>
<td>25%</td>
<td>52%</td>
</tr>
<tr>
<td>... Store harvest to sell or consume in future</td>
<td>61%</td>
<td>74%</td>
</tr>
<tr>
<td>If stored: Farmer lost or discarded harvest in storage</td>
<td>15%</td>
<td>n/a</td>
</tr>
<tr>
<td>... Sell the harvest for a lower price than what farmer would normally get</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>... Borrow money to cope with agricultural losses due to this crisis</td>
<td>2%</td>
<td>14%</td>
</tr>
<tr>
<td>Farmer received notice of compensation from government</td>
<td>0%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Total number of respondents**: 1275, 240
Food Insecurity in Haryana vs Odisha

- **Haryana (n=1162)**
  - Could not afford sufficient quantity of food
  - Could not afford sufficient variety of food

- **Odisha (n=240)**
  - Could not afford sufficient quantity of food
  - Could not afford sufficient variety of food
  - Could not access sufficient variety of food

Legend:
- **Black** Before Lockdown
- **Gray** During Lockdown

Significance Levels:
- **** p < 0.05
- *** p < 0.01
Conclusions

Labor Supply: labor supply was affected more in Odisha, where farmers didn’t have access to mechanized alternatives. In regions with local labor shortages, wages could go up, affecting farmer incomes. In regions with labor excess, wages could go down, affecting labor incomes.

Market Access: established public procurement system in Haryana protected wheat farmers during the lockdown.

Technology: database of farmers in Haryana offered many positive possibilities during this pandemic.

Food Security: policies would need to target areas with lower food production diversity and higher diversity differently.
Discussion

➔ What are possible limitations of this study?
➔ When navigating between strict COVID policy and ensuring food security in poorer areas, where should we draw the line?
➔ How can the results of this study be implemented
Citation

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