SCALING UP CLIMATE-SMART FARMING PRACTICES THROUGH ICT ENABLED PLATFORMS IN INDIA

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**Problem Statement**
- 33% of global emissions from agriculture & food system activities
- 100 million farmers in India depend on agriculture for their livelihood
- 85% of India’s farmland is held by small & marginal farmers

**The broken value chain as a driver of inefficiency**

- Agricultural households (HH) indebted: 52%
- High input cost: 35%
- Exploitative credit: 35%
- Limited marketing channels: 21%
- Exploitative credit: 21%
- Low extension to farmer ratio: 20%
- Limited customized crop advisory: 20%
- Data & transparency challenges: 20%
- Low uptake of new technologies: 20%
- Limited cold storage capacity: 20%
- Insufficient cold storage capacity: 20%

**The broken value chain as a driver of inefficiency**

**Case Example: Bihar**

1. Production lower than yield potential
2. Limited landholdings
3. No direct access to bulk buyers
4. High input cost: $670
5. Agricultural HH (HH) indebted
6. Exploitative credit
7. Limited marketing channels
8. Low extension to farmer ratio
9. Limited customized crop advisory
10. Data & transparency challenges
11. Low uptake of new technologies
12. Insufficient cold storage capacity
13. No direct access to bulk buyers

**Opportunity**
- To test innovative solutions that fix the value chain to improve farmer’s profits & promote Climate Smart Agriculture

**One stop 360 degree solution**

**Input**
- Order quality inputs at right time & price
- 300+ input products available from competitive sources
- Customized crop & variety planning

**Output**
- 10-15% increment in farm gate prices
- Direct access to market
- Customized production planning, demand-led cultivation
- Mobile penetration rate was 47% in 2015

**Our goal and vision**

- Demonstrating the ‘triple win’ at scale
- Increase/maintain yield + profit
- Adopt & build resilience to climate change
- Reduce GHG emissions

**Future steps**

- Continue data collection from academic/public sources, baseline surveys & farmers through expanded DeHaat IT platform
- Use data to develop decision-making tools for policy makers, farmers & private sector as they invest in agriculture sector, understand tradeoffs
- Continue to replicate & scale in different geographies across India

**What does the data say?**

- Results from 2016 DeHaat interventions when compared to baseline farmers

<table>
<thead>
<tr>
<th>Year</th>
<th>Input</th>
<th>Output</th>
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<tbody>
<tr>
<td>2016</td>
<td>Fertilizer cost</td>
<td>Total nitrogen use</td>
</tr>
<tr>
<td>2017</td>
<td>Seed cost</td>
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