Livelihood and Food Security Issues in the Kosi River Basin Area, Bihar

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Background

- Socio-economic and Livelihood Study and Policy Analysis
- 1600 households were surveyed
- Four Regions: (1) Within Embankment (2) Outside Embankment (3) Without Embankment (4) Protected Region
A livelihood comprises the capabilities, assets and activities required for means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base” (Chambers and Conway, 1991).

**Vulnerability Context**
- Flood and Draught
- Low productivity
- Low wage
- Lack of Infrastructure etc.

**Livelihood Assets**
- H= Human Capital; S= Social Capital; P= Physical Capital; F= Financial Capital; N- Natural Capital
Livelihood Asset

Human Capital

- Low Literacy rate. Worse than the whole Bihar. The rate accounts 56.9 percent as compared to 61.8 percent of Bihar.

- Similarly Health status is found relatively poorer.

- The dependency ratio of the study area accounts as high as 102.4 as compared to 95.1 of Bihar.

- Reasonably high female headed household: 16 percent

- Overall literacy rate, average year of household education, status of health, workforce participation, landholding etc. are lagged behind in female headed households.
Livelihood Asset

Physical Capital
- Around 65 percent of HH are Katchha
- 40 percent HH had separate kitchen
- Around 29 percent HH didn’t have electricity connection
- Around 90 percent of HH members go for open defecation

Natural Capital
- 90 percent of households belong to the marginal landholding group (less than 1 hectare).
- 76% households had livestock.
Livelihood Activities/Strategies

- Casual labour in the agriculture sector (40.4 percent) remains on the top followed by cultivators (24.8 percent), casual labour in non-agriculture activity (15.2 percent), business (5.9 percent) and others.

- Female workforce participation is found higher with 24 percent in the Kosi area as compared to the percentage of 19 percent of the entire Bihar.

- Diversification of Economic Activities: around 19 percent of working population are engaged with at least two economic activities. High household diversity.
Livelihood Activities/Strategies

Migration

- 9.4 percent people migrate seasonally.
- Around 38 percent of households in the study area have at least one long-term migrant.
- 85 percent of long term migration takes place for employment related reasons.
- Seasonal migration are mostly intra state.
- Long term migrations are mostly inter state.
Livelihood Output: Household Food Security

“Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”. (World Food Summit, 1996)

Table 4.21: Indicators of Household Food Insecurity (reference last 1 year)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Within Embankment</th>
<th>Outside Embankment</th>
<th>Without Embankment</th>
<th>Protected Region</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of remained worry for food</td>
<td>94.0</td>
<td>94.7</td>
<td>96.5</td>
<td>91.0</td>
<td>93.8</td>
</tr>
<tr>
<td>Average days of worried for food</td>
<td>92.9</td>
<td>92.6</td>
<td>101.3</td>
<td>83.9</td>
<td>92.1</td>
</tr>
<tr>
<td>Percentage of not eating preferred food it</td>
<td>92.8</td>
<td>93.0</td>
<td>94.0</td>
<td>92.2</td>
<td>92.9</td>
</tr>
<tr>
<td>Average days of not eating preferred food</td>
<td>72.3</td>
<td>71.6</td>
<td>75.7</td>
<td>72.1</td>
<td>73.0</td>
</tr>
<tr>
<td>Percentage of eating smaller meal</td>
<td>10.0</td>
<td>12.0</td>
<td>19.8</td>
<td>6.0</td>
<td>11.6</td>
</tr>
<tr>
<td>Average days eating smaller meal</td>
<td>51.7</td>
<td>53.3</td>
<td>51.7</td>
<td>50.1</td>
<td>51.7</td>
</tr>
<tr>
<td>Average number of meals taken in a day</td>
<td>2.9</td>
<td>2.8</td>
<td>2.6</td>
<td>2.9</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Table 4.22: Statistics of food security index

<table>
<thead>
<tr>
<th>Region</th>
<th>Mean</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
<th>S.D</th>
<th>F Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Embankment</td>
<td>6.93</td>
<td>6.87</td>
<td>3.33</td>
<td>10</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>Outside Embankment</td>
<td>6.88</td>
<td>6.87</td>
<td>2.92</td>
<td>10</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Without Embankment</td>
<td>6.48</td>
<td>6.35</td>
<td>3.33</td>
<td>10</td>
<td>1.12</td>
<td>24.94***</td>
</tr>
<tr>
<td>Protected Region</td>
<td>7.15</td>
<td>7.08</td>
<td>2.93</td>
<td>10</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>6.88</td>
<td>6.87</td>
<td>2.92</td>
<td>10</td>
<td>1.19</td>
<td></td>
</tr>
</tbody>
</table>
Vulnerability Context

- Improper Implementation of PDS, ICDS, MDM: Low coverage, Huge leakages

- Recurrent flood, draught, lack of irrigation facility, declining productivity, lack of infrastructural facility etc.

- Increasing soil infertility due to siltation, water logging, soil erosion etc.

- Migration: Increase women headed households, weaken community participation, discourage technological adaptation in agriculture
Conclusion

- Low livelihood resource base to low livelihood outcomes
- Agricultural base economy but it fails solely to support whole livelihood.
- People had to take multiple economic activities. Diversification of activity pattern amongst members had been usual strategy to make livelihood.
- The most important point amongst various livelihood strategies has been migration. But it is likely to have negative impact over agriculture.
- Easy way out of improving livelihood opportunities could be agricultural development through overcoming vulnerability context.
Thank You