The Economic Consequences of Migration

The literature on the economic consequences of migration, especially for those left behind, exhibits considerable debate and confusion (see Bilsborrow, 1998). Some of the confusion stems from inappropriate comparisons used in assessing consequences. The data available for analysis is typically cross-sectional and does not allow an examination of the delayed impact of migration on households. In this study, we use longitudinal data to examine the impact of out-migration on agricultural production of households in origin areas.

Linkages that have been made between out-migration and changes in labour inputs of remaining household members, and out-migration from agricultural households has also been linked to changes in the types of agriculture that are engaged in by households (Singhanetra-Renard, 1992), or a shift from more intensive to less-intensive forms of agriculture (Makinson-Ahlesusuey, 1993).

Out-migration can also change the models of agricultural production. For example, the out-migration of males in an area of shifting cultivation studied in Malaysia reduced the length of tilage. This was a result of the unavailability of men to clear new areas for crops (Joekes et al., 1994).

Objectives

(1) To investigate the effect of migration on the amount of land used in cultivation
(2) To examine the effect of migration on the amount of household labour employed in agriculture

Data

Data from the Kanchanaburi Demographic Surveillance System (DSS) during 2000-2003 is used for this study. The Kanchanaburi DSS is operated by the Institute for Population and Social Research (IPSR), Mahidol University with the support from the Wellcome Trust, U.K.

Data limitation

(1) Left censoring—no information on what had happened before 2000
(2) No follow-up situations where all household members migrate
(3) Lack of household remittance data

Definition

Agriculture households are defined as those households that in the year 2000-2003 used land for agricultural purposes. The land used could be owned, rented, or available free of charge.

Migration is defined as movement out of the village of residence for a period of at least one month.

Units of analysis

The unit of analysis is households, which the total is 4955. There are four categories of households, which are:
(1) No out-migration occurred in the three years,
(2) Households where out-migration first occurred three years before the final census round in 2003,
(3) Households where the first migration occurred two years before the final census round, and
(4) Households where the first migration occurred the year before the final census round.

Dependent Variables

The main outcomes of interest in the analysis are:
(1) The amount of land that households use for agricultural production;
(2) The amount of agricultural land used for high labour intensive production (defined in terms of use of land for growing rice, and other annual or biannual crops);
(3) The amount of land used for low labour intensive agriculture (defined in terms of animal husbandry and crops taking more than two years to mature), and
(4) The number of household members whose main occupation is in agriculture.

Results

Table 1: Percentage Distribution of Households by Out-Migration Status and Year

<table>
<thead>
<tr>
<th>Migration Status</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
</tr>
<tr>
<td>No out-migration</td>
<td>76.0</td>
</tr>
<tr>
<td>First out-migration in 1 year</td>
<td>24.0</td>
</tr>
<tr>
<td>First out-migration in 2 years</td>
<td>24.0</td>
</tr>
<tr>
<td>First out-migration in 3 years</td>
<td>24.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: - Migration data not available

Figure 1: Mean amount of land (in Acres) used by agricultural households for intensive forms of agriculture, by type of migrant household and year

Figure 2: Mean amount of land (in Acres) used by agricultural households for less-intensive forms of agriculture, by type of migrant household and year

Table 2: Unstandardised ordinary least squares regression coefficients of models predicting amount of land used in agriculture and number of household members working in agriculture

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Agricultural Land</th>
<th>Agricultural Land Intensive</th>
<th>Agricultural Land Non-Intensive</th>
<th>Number of household members working in agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrant households</td>
<td>-0.07</td>
<td>0.001</td>
<td>0.004</td>
<td>0.002</td>
</tr>
<tr>
<td>Migrant years under 20 years</td>
<td>0.001</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Migrant years over 20 years</td>
<td>0.003</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Migrant members employed</td>
<td>0.001</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Migrant households employed</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Conclusions

The interplay between migration and household allocation decisions is complex and this paper has only scratched the surface of this relationship. The study suggests that households do face constraints in the amount of land that they can cultivate and the amount of labour they can use in agriculture immediately after the out-migration of household members.

However, households soon adjust to these constraints, drawing on existing household resources to substitute for the labour of household members who have migrated. There is no evidence to suggest that out-migration seriously impacts upon the agricultural production of households in this context.

Acknowledgement

The data upon which this analysis is based are collected by the Institute for Population and Social Research, Mahidol University as part of the Kanchanaburi Demographic Surveillance System, which is funded primarily by the Wellcome Trust, United Kingdom, and be a member of the INDEPTH network since 2003.

Selected References