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# Determination of Key Correlates of Agricultural Labour Migration in Less Resources Endowed Areas of Tamil Nadu§

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**Abstract**

This study has been conducted in the backward district of Perambalur, which is a less resource-endowed district of Tamil Nadu, with the following objectives: (i) to identify the major causes and empirically determine the key correlates of agricultural labour migration in the study area, and (ii) to identify the causes for rural out-migration. The study has been conducted by taking landless (group I) and landed (group II) respondents. The Garatte ranking of the causes of migration has revealed that of the ten push factors and ten pull factors (both economic and non-economic), lack of continuous employment at place of origin is at the first rank with mean score of 77 and 78 per cent for group I and group II, respectively, followed by low wages at place of origin and economic condition of the family. On the pull side also, economic reasons, viz. availability of job at destination has achieved the first rank with mean score of 75 for group I and 74 for group II, followed by hope of getting a job and higher wages. In the case of non-economic reasons, surplus labour availability at places of origin has received maximum scoring on the push side and skill development on the pull side. The study has concluded that though both economic and non-economic reasons are responsible for migration of agricultural labourers, economic reasons are stronger. Not only that, push forces of migration have been identified more strong than pull forces in catalyzing migration. The study has given some policy implications also for consideration of policymakers in Indian agriculture.

**Key words:** Agricultural labour, Labour migration, Tamil Nadu

**JEL Classification:** J61, R23

## Introduction

In India migration of agricultural labourers from villages to towns is not a new phenomenon, but its magnitude in the past one decade due to liberalization has attracted the attention of policymakers and they are trying to find ways to arrest this migration. Hence, studying the impact of liberalization at the micro level on agricultural labourers, on their employment opportunities, working and living conditions and trends, is of vital importance. However, the magnitude of rural labour circulation is of recent origin and is a direct consequence of structural changes, which have taken place both in the origin (villages) and destination areas of migration. Though direct statistics on rural-urban migration of agricultural labourers for India are not available over decades for a comparison, it can be well understood with increase in urban population. The urban population increased from 26 million in 1901 to 62 million in 1951, an increase of 36 million in 50 years. But thereafter the absolute increase during the next three decades was in the order of 94 million (1951 - 81).

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Urban population has reached the highest percentage of 31.16 per cent in 2011 from 27.81 per cent in 2001. The reasons attributed to this were net migration of labourers from rural areas and agricultural economy, in addition to natural increase in urban population (Tondon and Singh, 2007). Industries situated in the urban areas require a steady supply of labour which induces migration from the adjoining villages and so rural-urban migration impacts the most on the labour market in sending and receiving areas. It also influences development in a number of crucial ways.

In the light of the above scenario and the current focus on migration of agricultural labour, a study was conducted in the backward district of Perambalur with the following objectives: (i) to identify the major causes for rural out-migration, and (ii) to empirically determine the key correlates of agricultural labour migration in the study area.

## Methodology

To achieve the objectives of study, districts with higher percentage of rainfed area to total cropped area than state average coupled with higher percentage of agricultural labourers to total workers than state average were selected. Among such districts, Perambalur district and from its blocks, Sendurai block was selected for the study. Out of 28 villages of Sendurai block, three villages were selected randomly. All the households in these three villages were surveyed with the help of revenue officials for identifying migratory households and 300 households were selected based on probability proportion to size of migratory households. To collect information, survey method was adopted.

Based on the z-test results, the sample households were post-stratified into two groups, viz. group I was of landless households and group II was of households with agricultural land, based on household income.

### Analysis

The linear function was estimated by the method of ordinary least squares to find the factors that may influence the decision of the households to migrate (correlates) and the model specified was:

$$Ym = \beta_0 + \beta_1 X_{1m} + \beta_2 X_{2m} + \beta_3 X_{3m} + \beta_4 X_4 + \beta_5 D_{1m} + \mu_m$$

where

$Y_m$ = Number of days a migrant remained migrated,

$X_{1m}$ = Age of migrant (years),

$X_{2m}$ = Educational status of migrant (number of years of schooling),

$X_{3m}$ = Dependents of migrant household (No.),

$X_{4m}$ = Loan availed by migrant (‘),

$D_{1m}$ = Marital status of migrants (1 if married, 0 otherwise),

$\beta_0$ = Constant,

$\beta_1$ to $\beta_5$ = Parameters to be estimated, and

$\mu_m$ = Random error-term.

To study the difference in perception between the two groups of migrants (Group I and Group II), chi-square test was used. Garret’s ranking technique was used to rank the push and pull factors responsible for migration, as perceived by the sample respondents. By referring to Garret’s table, the per cent position estimated was converted into scores and then for each factor, scores of various respondents were added and the mean value was calculated. The factor with highest mean value was considered to be the most influencing factor, for moving out.

## Results and Discussion

### Correlates of Migration

The results of linear regression analysis have been presented in Table 1. The variation in intensity of migration was explained by the following explanatory variabless: age of migrant, educational status, marital status, dependents and loans availed. The linear regression analysis was carried out for group I group II separately.

To start with, asset position and expenditure level of households were considered as explanatory variables, but the variation in asset position and expenditure level did not emerge as significant variables. This indicated that the households had no asset worth to contain migration even in the normal years and it was true for both the groups. This reconfirmed that unless a critical minimum area is available in dryland conditions for landed households (group II in this study), even households with relatively reasonable cropped area but

**Table 1. Estimates for correlates of migration**

| Variable | Group I Coefficients | Group II Coefficients |
|---|---|---|
| Constant | 222.76 | 188.72 |
| | (17.814) | (13.173) |
| Age (years) | -0.2824 | -1.15 |
| | (-0.962) | (-0.819) |
| Educational status (years) | 0.9150 | -0.99 |
| | (1.841) | (-0.692) |
| Dependents (No.) | 3.414*** | 6.19** |
| | (3.319) | (2.432) |
| Loans availed (₹) | 0.000931*** | 0.18*** |
| | (6.184) | (6.456) |
| Marital status (dummy) | -1.031 | -0.12 |
| | (-0.042) | (-0.449) |
| $R^2$ | 0.61 | 0.63 |
| $\bar{R}^2$ | 0.47 | 0.42 |

*Note:* Figures within the parentheses indicate estimated 't'-values

*** and ** denote significance at 1 per cent and 5 percent levels, respectively.

without enough credit worthiness or savings to meet the implication of shocks like crop failure, may have to resort to migration.

The variables 'loans availed' at origin and 'number of dependents' were found significant at one per cent level for group I and at one per cent and five per cent levels for group II (Krishnaiah, 1997). It revealed that under normal situations, other factors remaining the same, as number of dependents (children and aged) in a household increased the intensity of migration also increased. It was not surprising because the migrant has to feel a large number of dependents at origin which automatically increases the migration intensity. This is a negative imperative of a large number of dependents which also increases the parting period.

The variable loans availed also was significant at one per cent level for both the groups, indicating that as volume of loan increases, the migration intensity also increases. The other variables did not emerge significant, though education had a positive influence for group I.

The results of the study should be interpreted with caution for two reasons. First, there is likelihood of error in measurement and as low value of $\bar{R}^2$ indicates the model specification might have a risk of omitted variable bias as well. The specification is least likely to have simultaneity bias; logically it can be argued that the situation at places of origin makes migrants to create new livelihood struggles, since migration is an outcome of the process.

## Causes for Rural Out-Migration

The reasons for agriculture labour migration can be grouped into push factors and pull factors. Several studies in the past, including the seminal paper by Tadro (1969), have tried to explain the migration behaviour in developing countries in terms of push and pull factors. The rural exodus could be attributed to a number of these push-pull factors and hence migration itself was the outcome of the relative strength of these factors. Both of these heads were sub-dived into economic and non-economic factors. Push factors of economic nature were lack of continuous employment opportunities, low wages and the like at origin. The non-economic factors included family feud, social differentiation, etc. Likewise, pull factors of economic nature included high wage and availability of job and the non-economic nature included city attraction, skill development, etc. Thus, in this study, ten push factors (five economic and five non-economic) and ten pull factors (five economic and five non-economic) were identified and the respondents were asked to rank them according to the relative weightage they give to factors as reason for migration.

## Push Factors

### (a) Economic

The push factors of economics nature with their mean scores and ranks have been presented in Table 2. Lack of continuous employment in the study area was perceived as the main economic reason for migrations in both group I and group II, followed by low wages at native place. (Gupta and Prajapati, 1998). For group I, mechanization of agriculture was at the third rank and economic status of the family at the fourth rank. For group II, it was decline in per capita land availability at the third rank, mechanization of agriculture at the fourth and the economic condition of the family at the fifth rank.

The migrants of both the groups explained that only during the months of July and August, they have sowing work (mainly rainfed crops) in the village for a few

**Table 2. Push factors for out-migration in Perambalur district**

| Push factors | Group I | | Group II | |
|---|---|---|---|---|
| | Meanscore | Rank | Meanscore | Rank |
| | **Economic** | | | |
| Lack of continuous work at origin | 77.7 | I | 78.1 | I |
| Low wages at origin | 71.5 | II | 73.2 | II |
| Mechanization of agriculture | 61.4 | III | 56.1 | VI |
| Economic status of family | 57.6 | IV | 44.8 | V |
| Decline in per capita land availability | - | - | 70.2 | III |
| | **Non-economic** | | | |
| Population pressure/ surplus labour | 67.0 | I | 64.7 | I |
| Social differentiation | 30.3 | II | 3.33 | II |
| Poor infrastructure | 29.0 | III | 31.0 | III |
| Penetration of market economy | 24.2 | IV | 21.2 | IV |
| Family feud | 19.1 | V | 19.2 | V |

weeks and then practically there is no work till harvest. At the time of harvest too, they have work for a few weeks, if yield is reasonable. For the remaining long period of the year it was not possible to get a job in the village, forcing them to go out in search of livelihood. During sowing and harvesting period also in a normal year, the labour demand is not adequate to provide employment for most of the labour. Hence, economic distress due to lack of continuous employment was the prime reason for rural to urban migration of agricultural labourers in the study area.

Lack of employment opportunities has been mentioned as the root of migration decision in the most of the studies (Arup, 1992; Solocius, 1998; Sidhu and Rangi, 1998; Nirmal *et al.*, 2002; Ramesh, 2007). Understandably since agriculture is not 'so remunerative', low wages prevailing at place of origin was the next important reason in this area. In group II, fragmentations of ancestral landholdings had declined the per capita land availability to an unviable size, rendering migration as the only option for livelihood.

**(b) Non-Economic**

A perusal at the mean scores and ranks of different non-economic push factors has revealed that except surplus labour because of population pressure, other factors did not depict a significant role in triggering migration and hence, economic reasons were the key players in out-migration of agricultural labourers (Arup, 1992).

## Pull Factors

**(a) Economic**

The pull factors of both economic and non-economic nature with their mean scores and ranks have been presented in Table 3. On the pull side, the migrants of both the groups ranked the availability of job at destination as their first choice with mean score of 75 and 74 in group I and group II, respectively, followed by the hope of getting a job (rank II by group I and rank III by group II) and higher wages (rank III by group I and rank II by group II).

Other economic reasons, viz. flexible hours of work and information about employment also received reasonable scorings from both groups and subsequent good rankings. The migrants of both groups expressed that availability of job at destination with high wages coupled with flexible hours of work were the prime factors on the pull side. The migrants also stated that at destination for most of works, the wages were on piece-rate basis (i.e. per bag, per box, etc.) which provide good amount of flexibility.

**(b) Non-economic**

A perusal at mean scores and ranks of different non-economic pull factors reveals that skill development and ambitions received maximum but not high scorings in both the groups, and other factors got only low scorings and subsequent low rankings. Here again economic pull factors economic factors were stronger in triggering migration.

**Table 3. Pull factors for out-migration in Perambalur district**

| Pull factors | Group I | | Group II | |
|---|---|---|---|---|
| | Meanscore | Rank | Meanscore | Rank |
| | **Economic** | | | |
| Availability of job at destination | 75.7 | I | 74.9 | I |
| Hope of getting a job at destination | 71.7 | II | 70.8 | III |
| Higher wage at destination | 64.7 | III | 72.1 | II |
| Information about employment | 51.2 | IV | 56.0 | V |
| Flexible hours of work at destination | 49.9 | V | 61.6 | IV |
| | **Non - economic** | | | |
| Skill development | 40.9 | I | 50.7 | I |
| Ambitions | 34.7 | II | 41.2 | II |
| City connections and relatives | 22.2 | III | 30.4 | III |
| Glamour of city life | 21.0 | IV | 20.4 | IV |
| Bustling social life/urban comforts | 19.2 | IV | 19.2 | V |

Thus, these findings indicate that under normal situation both economic and non-economic factors have a role in triggering migration. On both push as well as pull side, the economic factors were stronger (Samir and Vinod, 1991). Between the pull and push side factors, it could be easily deciphered that push factors of migration were stronger than pull factors in effecting migration as has also been observed by Bipin *et al.* (1998) and Singh and Agarwal (1998).

## Policy Implications

- Strengthening of agriculture in the area by conserving soil-moisture (through water harvesting interventions)
- Breaking the debt-trap that triggers migration by creating access to institutional consumption credit
- Strengthening the borrowing capacity by group funding for production-oriented and consumption-supporting self-help groups that augment institutional finance
- Facilitating the process of migration by providing amenities and facilitating movement
- Providing facilities at destination.

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