

# Labour Issues and the Impact of Migration on Kerala Agriculture

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## Abstract:

The state of Kerala structurally abundant in labour supply is facing a labour shortage especially in the agricultural sector. A prior reason for this shortage is the national and international migration of labour from Kerala. Among the 29 states in India, Kerala has the largest number of international labour migration. In addition to that Kerala's labour force migrates from the rural areas to other major urban towns and cities. Hence, being a labour intensive industry agriculture faces serious labour shortage in its different activities. Even after mechanization, labour problem persist in this sector. Mechanization resulted in a reduced requirement of labour in agriculture. However, there still exist a shortage in agricultural labour. Based on the circumstances prevailing in Kerala, an attempt is made through this paper to throw some light on the labour issues and also to analyze the impact of migration of labour force on Kerala's agriculture sector with special reference to paddy cultivation. In Kerala two major regions famous for paddy cultivation are in Alappuzha and Palakkad districts. The present study, which is both historical and empirical in nature, is restricted to Kuttanad region in Alappuzha district, conducted using both primary and secondary data.

**Keywords:** Agricultural Development, Paddy Cultivation, Migration, Scarcity .

## 1. Introduction

In Kerala paddy cultivation is undertaken mainly in Palakkad, Alappuzha and Thrissur district<sup>1</sup>. According to an analysis conducted in the year 2013-14, Palakkad has the highest intensity in paddy cultivation, where area of cultivation equals 82,896 hectares. This accounts for 41.5% of paddy cultivation in the state. This was increased by 4.6% between 2012 and 2013. Palakkad is followed by Alappuzha, where 37,403 hectare of area is under paddy cultivation, which amounts to 18.7% of paddy cultivating area in the state. The area under paddy cultivation increased by 3.3% in Alappuzha district between 2012 and 2013. Thrissur and Idukki districts hold third and fourth position respectively in paddy cultivation in the state.

This paper studies about paddy cultivation and related activities with special reference to Kuttanad. The major occupation in Kuttanad is farming. Rice is the important agricultural product in Kuttanad [George Jose, 1984; Tharamangalam Joseph, 1981]. So it is known as the "The Rice Bowl of Kerala" [Simon Santhosh and Jacob K Paulose Jacob, 2012]. Migration had a major impact on the society of Kuttanad.

Agricultural farming generated employment opportunities to the labour force of the district and the nearby areas [T.M. Thomas Isaac, 1992]. It not only provides employment opportunities but also is a major source of income. The agricultural farming benefits the Keralites as it provides opportunities for employment, income generation, food security, etc. But these facilities are seldom utilized. Traditionally, agriculture is part of livelihood or mere subsistence. But moderation has led to the commercialization of agriculture [Lakshmi Geetha, 2018].

In olden times there were many labourers in Kuttanad for doing different agricultural operations [George Jose, 1984; Tharamangalam Joseph, 1981] but now a days there is a scarcity of labourers in the same place [Lakshmi Geetha and Aniyankunju P.C., 2018]. It be caused mainly because of the fact that in earlier times labour movement in search of jobs were very less as compared to modern times. Presently compared to other states in India, the wage rate and working conditions of agricultural labourers are far better in Kerala, especially in Kuttanad

<sup>1</sup> State of Indian Agriculture, 2015-16; Government of India Ministry of Agriculture & Farmers Welfare Department of Agriculture, Cooperation & Farmers Welfare Directorate of Economics and Statistics, New Delhi.

[Oommen, M.A., 1993; Lakshmi Geetha, 2018] and there is a persistent upward trend in wage rates [Patrick Martin, 2005].

The primary cause for labour scarcity is migration of labourers from agriculture to other areas. Job creation in the agricultural sector is slow as a result of lower growth expectations in this sector [Rangarajan C., Seema, Vibeesh E.M., 2014; Narayanamoorthy A., Bhattarai M., Suresh R. and Alli P., 2014]. Industrial development has been restricted to the urban areas. So a large number of people are attracted to urban areas, seeking better jobs, higher income and standard of living [Thomas, P.M., 2002; Abhishek Shaw, 2013]. Overall progress of the urban areas in the IT sector and the service sector resulted in immense economical, educational, health care and social developments and this attracted the labour force of the rural areas in Kerala [Lakshmi Geetha and Aniyankunju P.C., 2018; Census, 2011]. The agricultural labourers moved from rural to urban areas for better life. Migration helps in the social and economical development of their life [Kannan, 1998 and Mahesh, 2002]. This movement accelerated their economic growth. It gave greater job opportunities in non-agricultural sectors [T. M. Thomas Isaac, 1992; C. Rangarajan, Seema, Vibeesh E.M., 2011; GOK, 2016; R. Maniyosai, Antony Kuruvilla, 2018].

In earlier days workers were prohibited from education, because only high caste family members alone possessed right to education [George Jose, 1984; Tharamangalam Joseph, 1981 and Mukundan M., 2005]. Education is a major factor for attaining a better life for everyone [George K.M., 2010]. Now the Government gives free and compulsory education to all children and also gives different schemes for attracting children to the schools. So farm labourers started giving education to their children and thereby they got better jobs than being agricultural labourers [C.R. Neelakandan, 2004]. The labourers and their family migrated to other areas for attaining a better economic and social life [Kannan, 1998; Prakash Pillai R, 2015 and K. M. George, 2010]. Majority of the population believed that agricultural employment will not bring any dignity into their life, which attracted them towards white collar jobs [Maniyosai R., Kuruvilla Antony, 2018]. This resulted in a scarcity of labour in the farming sector, considering which farming in Kuttanad now- a-days has become highly mechanized and which was even welcomed by trade unions [Venu K., 2010; Lakshmi Geetha and Aniyankunju P.C., 2018].

## 2. Objectives

1. To find out the reasons behind the migration of labour from the agricultural sector of the Kuttanad region.
2. To examine the economic impact of migrating labourers.
3. To assess the extent of labour demand and supply in the farming sector in Kuttanad, before and after mechanisation.

## 3. Methodology

The present study being a historical cum empirical one, both primary and secondary data are used. Primary data are collected from Kuttanad through interviews and through a survey using pre-set questionnaire.

Kuttanad taluk is primarily a rural region comprised of 14 villages with a total area of 26593 hectares. These villages fall under 12 panchayaths. They are Neelemperoor, Kainakary, Pulinkunnu, Thakazhy, Nedumudi, Champakulam, Edathua, Veliyanad, Kavalam, Ramankary, Thalavady and Muttar. Among these 12 panchayaths, it has been observed that four panchayaths have major paddy cultivation. They are Neelemperoor, Kainakary, Pulinkunnu and Champakulam. The total land area under paddy cultivation from these four panchayaths combined is 10,928 hectares. Per hectare requirement for labour force is 80. On a random basis 40 sample households are selected for this specific study. That is 10 from each of the selected panchayaths.

## 4. The Scenario of migration

Migration first started during the 1970 of the 20<sup>th</sup> century. It reached its peak during the 1990's and retreated during the 21<sup>st</sup> century.

### 4.1 Concentration of labour in urban areas

Economic development is generally associated with the growth of urban population. Economic development makes migration faster. In Kuttanad there are no urban areas. In Alappuzha district there is a considerable decline in the growth of rural population. The rural population decreased from 14, 87,703 in 2001 to 9, 79,643 in 2011. And the urban population here, has increased from 6, 21,457 in 2001 to 11, 48,146 in 2011. The percentage of the rural population has decreased from 70.5 per cent in 2001 to 46.0 per cent in 2011. The percentage of the urban population has increased from 29.5 per cent in 2001 to 54.0 per cent in 2011. The rural-urban population for 2001 and 2011 is illustrated through the following table.

	2001		2011	
	Population	Percentage	Population	Percentage
Rural population	14,87,703	70.5	9,79,643	46.0
Urban population	6,21,457	29.5	11,48,146	54.0

Source: Census 2001, Census 2011 Government of India.

**Table 1: Rural - Urban population in Alappuzha district**

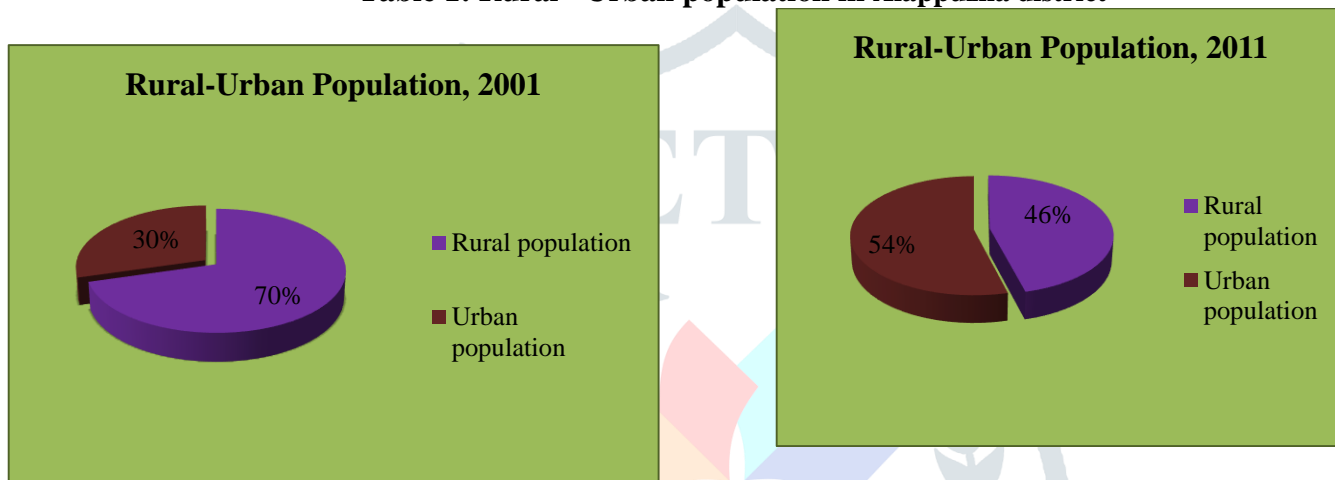


Figure 1 : Rural - Urban population Alappuzha district

Source: Census 2001, Census 2011 Government of India.

## 4.2 Pull and Push Factors

There are two critical factors that affect the movement of labourers from rural to urban centers. They are Pull and Push factors.

### A. Pull factors

The first is the “Pull” factor. With accelerated economic growth, job opportunities in non-agricultural sector are created much faster and this leads to a pull on labour force, away from agriculture to higher productive and higher paying manufacturing or services sector. Pull factors are those factors which attract the rural population migrating to urban areas in response to demand for labour. The attracting factors are the following:

#### a. Economic growth

There are different industries, institutions, hospitals, etc. concentrated in urban areas. Industrial development has been primarily focused in these areas creating externalities. Therefore it creates lot of employment opportunities. This attracts rural labourers and they shift to urban sectors.

#### b. Job opportunities in non-agricultural sector

There are permanent and higher wage rates prevailing in non-agricultural works. Such jobs attract agricultural labourers. This reduces the labour force in agriculture.

#### c. Improvement in the educational status, health facility, living condition

There are different types of educational institutions in urban areas which operate under competitive conditions. The development of educational institutions and better living conditions attracted a number of families. For the overall development of their children they shift to urban areas. The availability of good education, superior living conditions and excellent medical and health care facilities in urban areas attracted the rural people to urban areas.

#### **d. Glamour of city life**

The way of urban life is much more sophisticated yet comfortable compared to their counter parts in rural areas. Shops and establishments are opened till night. People attend late night parties and many events are organized in the late evening. Everything is available in the city at the door step. There are many opportunities for entertainment like clubs, cinemas, museums, libraries etc. All these glamour of city life attract rural population.

#### **B. Push factors**

Push factors are those factors which are responsible for the rural population getting pushed out of villages due to adverse economic conditions. Poor standard of living, lack of basic amenities, high unemployment rates and reduced wage rates forces the labour force out of the rural areas.

##### **i. Children's Education**

Weak education systems in rural areas compel the labourers to move to urban areas. The urban areas provided good opportunities for higher education which is lacking in the rural areas.

##### **ii. Social differentiation**

In rural areas people were differentiated on the basis of caste, economic condition etc. Discrimination practices based on caste and other social conventions are relatively low in urban areas.

##### **iii. Backwardness of the villages**

The living conditions are not good and there is a feeling of insecurity of life in villages, because of land disputes, caste conflicts, etc.,.... So these types of disputes, caste difference are not seen in urban areas.

##### **iv. Lack of continuous work at origin**

Kuttanad taluk has no urban areas. It is completely a rural economy and large scale production of rice is done in this place. So the main work is farming which has a seasonal nature. Agricultural labourers compel themselves to escape from the seasonal unemployment, because they want full time employment. This make them shift to urban areas for attaining a continuous and permanent job.

##### **v. Economic status of family**

If a person's income increase there by their economic status, education of their children, position, skill, etc. will definitely increase. So the shift enables to improve their economic life.

##### **vi. Decline in per capita land availability**

The density of population is very high in Kuttanad. Majority of labourers have less than 5 cent of land. Due to the scarcity of land at the time of partition ,some of their children were forced to shift to urban areas.

Agricultural labourers shifted to urban areas due to several reasons, some for better wages, some were attracted by the glamour of city life, some to educate their children, some to escape social discrimination, etc... [D. Jayaraj, 2015]. The factor behind migration will be different from person to person [Mridul Eapen, 1994]. In addition to that, the supply of labour from agriculture to other sectors is also affected by wages in the rural areas. Social welfare programs such as Mahatma Gandhi NREGA, has in effect been boosting rural incomes and incentives, thereby reducing the Push factor of movement away from agriculture. As rural wages rise, the urban labour market gets distorted and the Push factor gets weakened. This is supported by the fact that there is considerable decline in the growth of rural migration.

## **5. Impact of Migration on Agricultural Labourers in Kuttanad**

Migration of labourers from agricultural to modern sector increases their income. It positively benefited all such as, for themselves, for the family, for the Government, etc. Because of migration the gap between rich and poor is reduced, thereby reducing Government expenditure and increase Government revenue through tax. The following are some of the impacts of migration on agricultural labourers in Kuttanad.

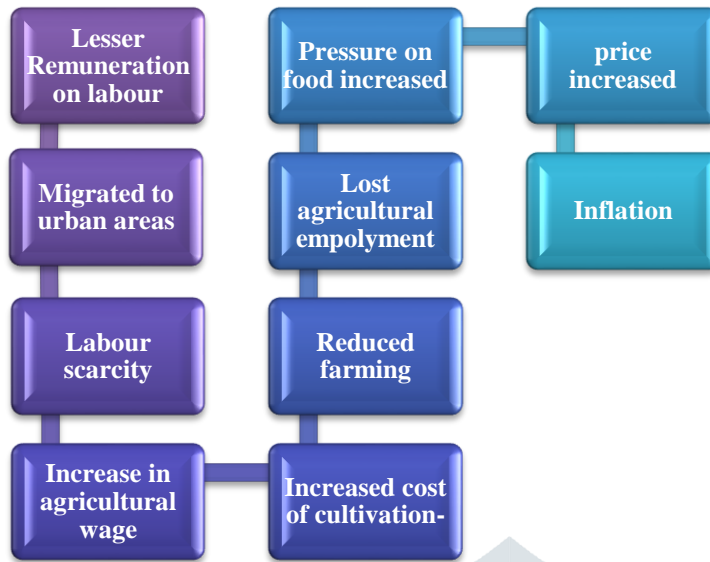
1. **Urban work is a permanent one giving more confidence to workers with stable income**
2. **Improvement in the education of children with especially, professional education**
3. **Improved standard of living**
4. **Increase in Social status of the family**
5. **Improvement in food consumption**
6. **Better medical and health care facilities**
7. **Purchasing power increases**
8. **Demand for luxury commodities has increased**
9. **Increase in the overall happiness of the family**
10. **Improved Economic well-being of the families.**

The primary reason for migration is the lower remuneration in the agriculture sector. The exodus from agricultural workforce is expected to slow down in the coming years till 2019-20 compared to the previous six years. Nevertheless, the size of the workforce in this sector is expected to shrink by another 23 million in the next eight years till 2019-20 and to form only 41% of the total workforce. This trend calls for immediate steps to improve labour productivity in the sector (FICCI).

- The Economic Survey, Jan 31, 2017 stated that the interstate migration of labour is significantly higher than previous estimates and the annual average flow was close to 9 million migrants between states during 2011-2016.
- According to Arun Jaitley, “The migration for work and education is accelerating. During 2001-2011, the rate of growth of labour migrants nearly doubled relative to the previous decade, rising to 4.5 per cent per annum”.

## **6. Consequences of Labour Scarcity In Kuttanad**

The major occupation of the people of Kuttanad is farming and they face various problems. Compared to other works, agricultural job is seasonal and is less remunerative. So majority of labourers migrated to other jobs and to have permanent income. At the same time farmers in paddy fields face scarcity of labourers for doing work. Under this circumstances, farmers are compelled to increase the wages of the labourers, thereby increasing their operational cost. With high operational costs the profit share of farmers decreased and many farmers dropped agricultural altogether. This resulted in farm labourers losing their job from paddy lands and the situation created a lot of linkage effects in the economy. The fall in income of agricultural labourers because of production decrease creates pressure on food items. Along with that large number of farmers introduced mechanization leading to an increase in cost of production. The net result will be price hike of food items leading to inflation. This linkage effect is given in the following chart.



**Figure 2: Consequences of Labour Scarcity in Kuttanad**

The use of machines to reduce labour requirement significantly in Kuttanad is not cent percent success because of the special geographic peculiarities of this land. 90% of farmers in Kuttanad follow mechanisation for ploughing, pesticides application and also for doing harvesting activities. Other activities in paddy cultivation need agricultural labourers.

**7. Scarcity of labour**

With scarcity of labour there emerged a need for mechanization in agricultural sector. In this session we discuss the comparison between the demand and supply of labourers before and after implementation of machines. Paddy cultivation is highly segmented in nature and different operations are included in it.

For the convenience, here total supply and demand for labourers is taken by combining male and female labourers. The observation is given in the following table. The number of labourers involved in various agriculture operations in one acre of land, after mechanization is as follows.

**Table 2: Demand and Supply of labourers before and after mechanisation**

SL. No.	Operations	Before Mechanisation		After Mechanisation	
		Demand	Supply	Demand	Supply
1	Dewatering	3	3	1	1
2	Ploughing	2	0	0	0
3	Repair of inner bunds	7	5	5	2
4	Sowing	3	2	3	2
5	Weeding	8	6	6	5
6	Transplanting	6	6	7	5
7	Manuring	3	3	3	3
8	Plant protection	3	3	3	3
9	Harvesting, Threshing and Winnowing	20	13	2	2
10	Paddy drying	2	2	2	2
	Total	57	43	32	25

**Source: Primary Data Collection**

The study observed that in Kuttanad, demand of agricultural labours was 57 man days in 1 acre of paddy land before mechanization period and supply of agricultural labourers was 43 man days. It is not the same in all

cultivation period. Weed growth determines the demand for labourers in paddy cultivation. If weed growth is high there is a need for more number of labourers for removing the weeds. So all farm operations need more labourers. Now, let us test whether the difference between the demand and supply of labourers in paddy cultivation has any impact on mechanization.

After mechanization demand for agricultural labourers for various agricultural operations for both men and women comes to 32 man days. It is much lesser than that required before mechanization. That is instead of 57 now only 32 is required. That means mechanisation itself reduces the demand for labourers. Even then, the supply of labourers fall short of the demand. That is supply is only 25 man days instead of the required number 32 man days. The scarcity of labourers is one among the main reason for introducing mechanization in agriculture.

The table shows that there is a significant difference between supply and demand for labour before and after mechanisation. The availability of the agricultural labour is lesser than the demand before mechanisation. It is clear that the demand for the agricultural labour after mechanization is lesser than the demand before mechanisation, which shows that we would be able to manage with lesser agricultural labour. But it is clear that the scarcity of labourers has been reduced for different farm operations after mechanisation. Also, from the table, it is clear that there was a scarcity of labour before mechanisation in the agricultural sector, which forced the farmers to adopt mechanisation.

### 8. Gap between demand and supply of agricultural labourers

The major problem faced by farmers in Kuttanad has been the scarcity of labourers. The supply and demand for labour is not the same in this region. Demand for labour is very high in these regions because in Kuttanad only three activities are done with the help of machines, they are ploughing, pesticide application and harvesting operations. Large number of labourers is needed for doing other operations such as weeding. But the labour supply is very less.

For calculating the labour demand and availability, we firstly measure how many labourers are needed for doing one acre of paddy cultivation. On the basis of interview with farmers it was understood that the required number and available number of labourers for one acre of paddy land, then multiplying this with total cultivated area of these three panchayaths one can arrive at the supply and demand gap for agricultural labour. For cultivating one acre of paddy land we require 32 man hours. In Neelemperoor, the total cultivable area is 3613 hectares, Kainakary 2762, Pulinkunnu 2493 and Champakulam panchayath 2060.

Calculations are done with One Hectare = 2.5 acre.

Table 3: Supply –demand gap in agricultural labour in study area

	Neelemperoor	Kainakary	Pulinkunnu	Champakulam	Total
<b>Requirement</b>	289040*	[80×2762] =220960	[80×2493]= 199440	[80x2060]= 164800	874240
<b>Availability</b>	225812.5**	172625	155812.5	128750	683000
<b>Gap</b>	63227.5	48335	43627.5	36050	191240

Source: Primary data collection      \*(32x2.5) x 3613      \*\* (25x2.5) x 3613

In Neelemperoor panchayath the required number for agricultural labour is 289040, Kainakary 220960, Pulinkunnu 199440 and Champakulam panchayath 164800, but the available number is very low in these three panchayath that is 225812.5, 172625, 155812.5 and 128750 respectively. The demand and supply gap for the labour is 63227.5, 48335, 43627.5 and 36050 in Neelemperoor, Kainakary, Pulinkunnu and Champakulam Panchayath respectively. So in my study area 191240 agriculture labours is needed for doing farm operations. This is diagrammatically represented below.

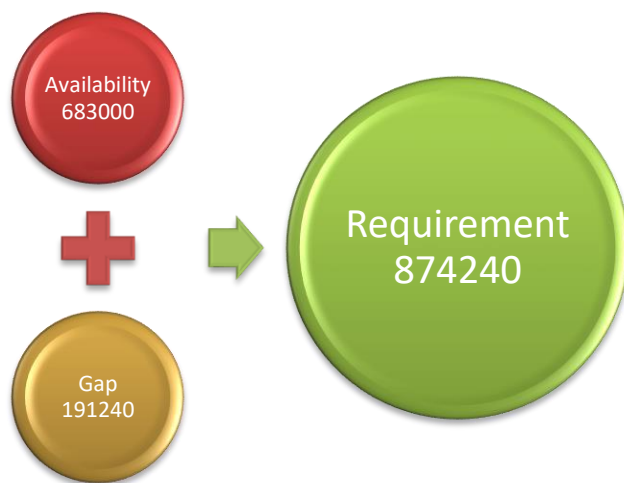


Figure 3: Supply –demand gap in agricultural labour in study area

There are numerous factors that influence the demand and supply of farm labourers in Kuttanad. One of the important demand factors for agricultural labourers is marginal productivity. In the period before mechanisation the productivity of labour was not high and disguised unemployment was present at that time. But now with the introduction of mechanisation their productivity increased. The other factors that influence the demand for labour is its wage rate. The demand and supply gap occurred mainly due to the scarcity of farm labourers in Kuttanad.

## 9. Challenges

Unskilled labourers engaged in the agricultural sector of Kerala find it difficult to earn his livelihood from agriculture alone. During recent times this resulted in heavy migration of labour from agricultural sector to other sectors, mainly to service sector and also to foreign countries. Migration of labour from the agricultural sector resulted in the shortage of labour tempting the farmers to adopt modern technologies including mechanization.

Migration is an important factor that has a major impact on labour availability. In Kerala, migration helped the labourers to improve their living standards but it has created a shortage in the availability of labour in the agricultural sector in rural areas.

Migration to other countries are also not free from any problems. In foreign countries the labour conditions are not so good as it was in the past. Because of various governmental labour policies foreign economies prefer to employ domestic labour. As a result the migrants to foreign countries face the problem of eviction. When they return to their own domestic country, there is the problem of resettlement, further job and other daily problems. Hence the Government now a days is thinking of schemes and other job opportunities, re-settlement options through, utilization of the earnings of the NRI's for their own benefit.

## 10. Conclusion

In agriculture, labour is the means as well as the end of all production. There is an acute shortage of labour especially in the paddy cultivation compared to other agricultural activities. This scarcity is not because of the lack of labour force, but the shift of the labour force from agriculture to other more income earning areas referred to as migration of labour in my study. Mechanization in agriculture reduces the gap in demand and supply of labour in Kuttanad. Along with it, mechanization of agriculture leads to increase in the productivity of the labour, which has a positive impact on the welfare of the labourers and their families.

Even after mechanization there is a shortage of labour for certain work that cannot be done by machines. Migrated labourers from agriculture to other sectors with in the country helped them to earn more income and also acquaint skill and dexterity in doing the work. It helped them to earn more income, better standard of living for



their family, better housing, good education for their children, and better medical facilities. All these conditions are true to those migrants to foreign countries also.

Thus, I conclude that a populated country like India face the problem of labour abandonment and at the same time the problem of scarcity of labour for doing certain type of work.

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