

Migration Effect of Agricultural Labourers on Agricultural Activities

Omprakash Parganiha¹, M.L. Sharma², P.M. Paraye³ and V.K. Soni⁴

1 & 4. SMS (Agril. Ext.), 3. Programme Coordinator, KVK, Bhatapara, 2. Asso. Prof., Deptt. of Ext., IGAU, Raipur
Corresponding author Email: extensionop@gmail.com

ABSTRACT

Agriculture has been the base of Indian economy. Agricultural labourers constitute the vital input in the agriculture production. Human resources are very important. Agricultural labourers are migrating to different parts of the country for earning their livelihood and in this way there is in-equilibrium between labour demand and supply. Migration of labour is still a major problem, which has to be resolved for stabilizing production of a particular region. Under certain circumstances, intensification of cultivation may increase the rate of labour absorption in agriculture. To find out the effect of migration on different agricultural activities, the present investigation was carried out in the eight selected villages of two blocks viz., Palari and Simga of Raipur district of Chhattisgarh during the year 2001-2002. A total of 80 migrant and 40 non-migrant farmers were selected randomly and personally interviewed with the help of structured interviewed schedule. Data were analyzed with the help of suitable statistical analysis. Majority of migrants (72.50%) occupied only less than 1 ha land and majority of non-migrants (52.50%) occupied 2.1-5 ha of land. About 16.25, 7.50 and 3.75 per cent migrants were found as small, medium and big farmers, respectively. As for as crops grown by respondents was concerned during kharif season, majority of migrants and non-migrants were growing paddy crop in maximum part of their arable land about 79.98% and 79.11% of there land respectively. Whereas, in case of rabi crops, majority of the migrants used to grow lathyrus crop in about 50.57% of their cropped land, but non-migrants were growing gram and summer paddy in their maximum part of land. Regarding the productivities of the crops, the significant difference was found for kharif season crops i.e. paddy, pigeonpea, maize, til, vegetables. Whereas, significant difference was noted in rabi for the productivity of gram among the migrant and non-migrant respondents. In case of knowledge and adoption it was found that non-migrants had more knowledge and adoption of different agricultural practices.

Key words: Land holding; Knowledge; Adoption; Cropping pattern; Productivity;

Agricultural labour migration is an increasingly important aspect of livelihoods in rural areas of Chhattisgarh. Such migration can no longer be viewed merely as an adjunct to an essentially agrarian way of life, but has to be seen as integral to the coping, survival and livelihood strategies of rural farming families. Agricultural labourers constitute the vital input in the agriculture production. Agricultural labourers are migrating to different parts of the country for earning their livelihood and in this way there is in-equilibrium between labour demand and supply. Migration of labour is still a major problem, which has to be resolved for stabilizing production of a particular region.

In the changing world, in most of the countries the increase in labour supply exceeds the increase in demand for it, which results in severe unemployment, India is one of them. At present it is facing a problem of surplus

labour force of 35 per cent in rural sector. This huge surplus labour force is mainly motivated to migrate within the country with the desire to improve their economic and social condition. Besides unequal distribution and lacking of resources in the village is key factor in inducing migration. Though migration is a common problem everywhere in the world. Sunny (2001) viewed that probably the number of migrant workers are larger in India than any other Asian country.

The effects of migration on rural employment are highly contextual. A wide range of variables interact and influence the cross-effects of workforce loss, financial transfers, investments, asset acquisitions and demographic changes. In densely populated regions, out migration may be a way to alleviate underemployment in agriculture and protect the livelihoods of the farmers who remain behind. Seasonal migration allows for

a better deployment of labour, since those who are underemployed during the agricultural lean season can find work in towns or in other areas, thereby increasing their incomes. On the other hand, more lasting out migration can deprive rural areas of critical agricultural labour during farming seasons. To an extent, remittances can compensate for the negative impact of out migration by allowing hired labour to replace the labour force lost. Out-migration can also cause the drain of skills and the loss of innovative community members from rural areas.

In Chhattisgarh, 82.56 per cent population lives in 20,376 villages. About 80 per cent population of the state is practicing farming. There are 16 districts, the population of Chhattisgarh is 20,795,956 (*Census 2001*) this is about 2 per cent of total population of country. The geographical area of this state is 135,194 sq.km., which is 4.1 per cent of total area of country. There is majority of tribles and out of total scheduled tribes (in country) population, 8 per cent are living in this state. The literacy rate of Chhattisgarh is 65.18 per cent (77.18 per cent male and 52.40 per cent female). (*Census C.G. 2001*).

There is large number of small and marginal farmers having low agricultural productivity and extremely low level of investment in agriculture, specifically in irrigation. Rice is grown in about 90 per cent of cultivable land of which just about 20 per cent is under irrigation. Thus, the region is paddy dominated and known as the "bowl of paddy". Due to poor irrigation facilities, the region is mono-cropped and in such a condition any improvement in the economy of agricultural labourers/farmers is become very difficult. On one hand, farmers have no crop at their own field after paddy and on other hands they are unable to get works as hired labour at other farms due to absence of second crop in the region. In spite of the several schemes of employment especially for the marginal farmers and landless labourers, people are increasingly migrating from this region in search of a job to raise their level of income. Present study conducted To study the cropping patterns of migrant and non-migrant respondents and their effect on productivity of different crops

METHODOLOGY

The present study was conducted on Raipur district of Chhattisgarh and four stage of sampling

procedure was done for selection of district. Out of 16 districts one district was selected in first stage. In the second stage two blocks were selected, four villages from selected blocks were purposively selected on the third stage. At last fourth and final stage was conducted for the selection of respondents from each selected village a representative sample of 10 migrant and 5 non-migrant respondents were selected randomly. In this way total 80 migrants and 40 non-migrants were considered. This selection method was done by simple random sampling method for the purpose of the study. To asses the level of knowledge and adoption of the respondents about agricultural practices, two devices was developed and responses of the respondents were recorded on a four point (complete, medium, partial and nil. 3, 2, 1 and 0 scores respectively) continuum scale for knowledge and three point (complete, partial and nil. With 2, 1 and 0 scores respectively) continuum scale for adoption respectively. Knowledge and adoption index were worked out to asses the level of knowledge and adoption of each respondents with the help of following equations.

$$(1) \quad KI = \frac{O}{S} \times 100$$

Where,

KI = Knowledge index of a respondents

O = Total scores obtained by respondents

S = Total obtainable score

$$(1) \quad AI = \frac{O}{S} \times 100$$

Where,

AI = Adoption index of a respondents

O = Total scores obtained by respondents

S = Total obtainable score

RESULT AND DISCUSSION

Land Holding : The data compiled in Table 1 reveals that majority of migrants (72.50%) occupied only less than 1 ha land and majority of non-migrants (52.50%) occupied 2.1-5 ha of land. About 16.25, 7.50 and 3.75 per cent migrants were found as small, medium and big farmers, respectively. Whereas, the percentage of non-migrants for land holding were found 12.50, 27.50 and 7.50 per cent as marginal, small and big, respectively. Similar findings were reported by *Prajapati (1991)*, *Gupta and Prajapati (1998)* and *Mishra (2000)*.

Table 1: Distribution of the respondents according to their land holding

Categories	Migrants (n=80)		Non-migrants (n=40)	
	f	%	f	%
Marginal (<1ha)	58	72.50	05	12.50
Small (1-2 ha)	13	16.25	11	27.50
Medium (2.1-5 ha)	06	7.50	21	52.50
Big (>5ha)	03	3.75	03	7.50

Cropping Pattern: The data in Table 2 indicates that in *kharif* season all migrants and non-migrants were growing paddy crop. Out of total respondents, 8.75 migrants and 20 per cent non-migrants were growing pigeonpea crop, In *rabi* season, majority of migrants (13.75%) were growing lathyrus crop followed by linseed (6.25%). In case of non-migrants, majority of respondents (47.50%) were growing gram followed by lathyrus (20%).

Table 2: Distribution of the respondents according to major crops grown to their area

Crops	Migrants (n=80)		Non-migrants (n=40)	
	f	%	f	%
<i>Kharif</i>				
Paddy	80	100.00	40	100.00
Pigeonpea	07	8.75	08	20.00
Maize	05	6.25	06	15.00
Urd	06	7.50	07	17.50
Minor millets	06	7.50	04	10.00
Til	03	3.75	05	12.50
Soybean	02	2.50	03	7.50
Vegetables	05	6.25	06	15.00
<i>Rabi</i>				
Gram	04	5.00	19	47.50
Wheat	00	0.00	05	12.50
Lathyrus	11	13.75	08	20.00
Linseed	05	6.25	05	12.50
Vegetables	02	2.50	05	12.50
Summer paddy	00	0.00	07	17.50

Extent of knowledge and adoption of respondents about agricultural practices: Fig.1 shows the comparison between migrants and non-migrants in respect of their knowledge and adoption about agricultural practices. It was found that non-migrants had more knowledge and adoption of different agricultural practices like land preparation, improved variety, seed treatment, nursery preparation, fertilizer application, fungicide and insecticide application etc.

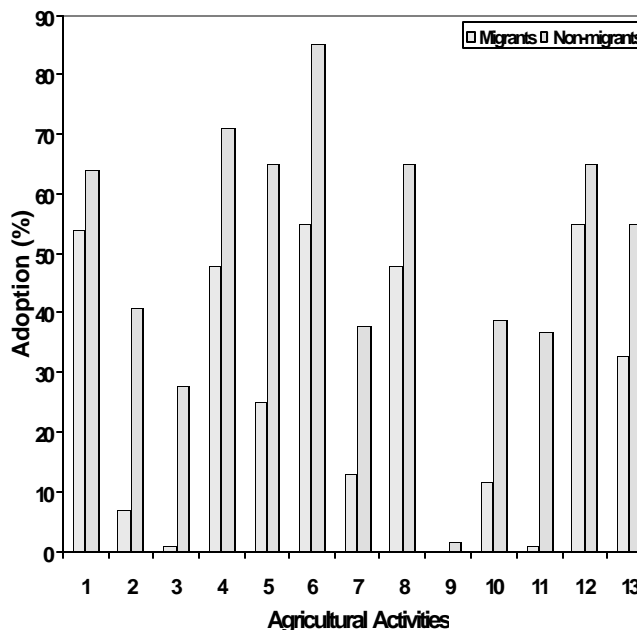
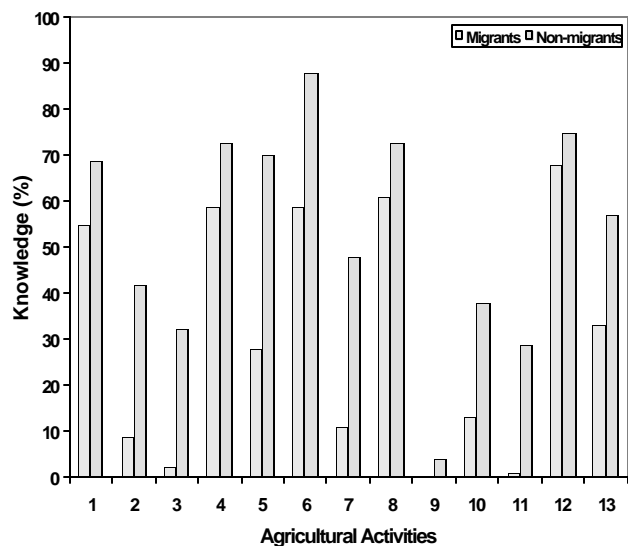


Fig.1: Effect of migration on knowledge and adoption of various agricultural activities

Agricultural activities: 1- Land preparation, 2-Improved variety, 3-Seed treatment, 4-Sowing, 5-Nursery preparation, 6-Weeding, 7-fertilizer application, 8-Irrigation, 9-Weedicide application, 10-Insecticide application, 11-Fungicide application, 12-Harvesting, 13-Storage/marketing.

Level of knowledge and adoption of selected practices of rice production technology: Table 3 indicated that the majority of migrants (53.75%) had low level of knowledge while, 38.75 and 2.5 per cent had very low and medium level of knowledge, respectively. But majority of non-migrants (47.50%) had medium level of knowledge while, 32.50, 17.50 and 2.5 per cent had low, high and very low level of knowledge

Table 3: Distribution of the respondents according to their level of knowledge and adoption of the selected practices of rice production technology

Particulars	Extent of knowledge/adoption			
	Very low (<25%)	Low (25-50%)	Medium (50.1-75%)	High (>75%)
Level of knowledge				
Migrants	31 (38.75)	43 (53.78)	06 (7.50)	00 (0.00)
Non-migrants	01 (2.50)	13 (32.50)	19 (47.50)	07 (17.50)
Level of adoption				
Migrants	25 (31.25)	55 (68.75)	00 (0.00)	00 (0.00)
Non-migrants	03 (7.50)	14 (35.00)	23 (57.50)	00 (0.00)

Table 4: Effect of migration on productivity of major crops grown

Crops	Migrants (n=80)		Non-migrants (n=40)		'z'/'t' value
	P	S.D.	P	S.D.	
<i>Kharif</i>					
Paddy	25.50	6.47	29.60	7.70	2.98*
Pigeonpea	5.71	1.88	11.09	3.09	3.72*
Maize	4.00	1.62	6.25	1.11	2.66*
Urd	4.10	2.29	7.86	1.72	1.16
Minor millets	1.28	2.78	3.43	2.13	0.03
Til	3.40	1.33	5.00	0.88	2.50*
Soybean	2.40	0.88	17.50	2.50	1.06
Vegetables	1.80	1.85	7.29	0.51	2.90*
<i>Rabi</i>					
Gram	4.53	0.59	7.44	1.97	2.76*
Wheat	0.00	0.00	19.75	1.85	-
Lathyrus	3.92	1.31	4.12	1.41	0.42
Linseed	3.75	0.88	4.50	0.68	1.34
Vegetables	5.62	0.88	7.75	1.85	1.31
Summer paddy	0.00	0.00	44.27	8.98	-

P= Productivity (q/ha)

* Significant at 0.05 level of probability

'z' test applied for paddy crop

about agricultural practices. It was reveals that the majority of migrants (68.75%) had low level of adoption, while rest had very low level of adoption. On other hand, majority of non-migrants (57.50%) had medium level of adoption while, 35 and 7.5 per cent had low and very low level of adoption, respectively.

Effect of migration on productivity of different crops: To determine effect of migration on agriculture 'z' and 't' test was applied and results are summarized in Table 4. It reveals that there was significant difference between migrants and non-migrants in productivities of crops like paddy, pigeonpea, maize, til and vegetable in *kharif* season and only gram in *rabi* season.

CONCLUSION

Out-migration is greater in the poorly developed agricultural areas, and particularly high amongst the landless farmers. It is concluded that non-migrants had more knowledge and adoption about different agricultural practices and also production and productivity of different crops was higher as compare to migrants. Only few farmers were growing second crop after rice, therefore a major group of small and marginal farmers were free during *rabi* and summer and did not have work so they migrated elsewhere for job and this seasonal migration is main cause of lacking of agricultural labourers. Basically, Chhattisgarh is the agrarian state. Most of the farmers earn their livelihood from agriculture. With less mechanization agriculture is totally based on manpower. That is why agricultural activities and production are affected due to migration. So there is need to check this migration and improve their livelihood system and which can be possible through study thoroughly and steadily thinking over the reasons responsible for the same.

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