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Coping with the Supply-Demand Gap of Agricultural Labourers: A Case Study of Uttar Dinajpur District of West Bengal[§]

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Abstract

The present paper has analyzed the mechanism by which farmers try to cope with the supply-demand gap of agricultural labourers during busy agricultural seasons in the face of growing shortage of agricultural labourers. The traditional mechanism of patron-client relationship between farmers and agricultural labourers has been dealt with in this regard. In this paper an attempt has been made to find answer to the following questions: What is the degree of attachment of the agricultural labourers with the employer? Is there any patron-client relationship between the employer and the employee? How effective is this relationship as a coping mechanism to mitigate the problem of supply-demand gap of agricultural labourers? The paper is based on a micro level study conducted in six villages of Uttar Dinajpur district, a predominantly agricultural and backward district of West Bengal. The study has suggested that to cope with the situation of supply-demand gap of farm labour, there is no other alternative but to adopt selective mechanization of farm activities. Some degree of mechanization is already there which is visibly on the rise. In future, there will be more inducement to undertake mechanical innovation to tackle the growing supply-demand gap in the farm labour.

Key words: Patron-client relationship, Supply-demand gap, Farmer-labourer attachment, Agricultural labourers

JEL Classification: J22, J23, J43

Introduction

Agricultural labourers constitute the poorest section of the rural population in India as well as in West Bengal. In numerical terms, they constitute about one-fourth of the total work force. Their number has been rising faster than the rate of growth of rural population. A number of studies had been done on the living conditions as well as on the employment, wages and income of agricultural labourers in the 1970s and early-1980s (Krishnaj, 1971; Jose, 1974; Bondopadhyaya, 1977; Lal,

1976; Bardhan, 1984, 1986; Dasgupta, 1984, Chattopadhyaya, 1985). But since late-1980s onwards very few studies have been undertaken on this topic. However, during this period vast changes have taken place in the rural socio-economic scenarios of West Bengal, including its northern part popularly known as North Bengal. A large area of land has come under modern agricultural strategy. With the introduction of bio-technological innovations in agriculture, there has been a perceptible increase in agricultural production and productivity. However, modern technology is yet to reach every nook and corner of North Bengal. Along with the changes in technology, production relations have also undergone a considerable change. The old patron-client relationship between the employers and the employees is not prevalent in the same form as it was before the 1980s. Yet, the relationship has not

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changed altogether. There has been widespread casualization of agricultural labour and one hardly finds permanent farm servants today at the houses of large landholders.

Agricultural labourers now enjoy more freedom compared to what it was in the 1950s or 1980s. Though degree of mechanization in agriculture has increased in the mean time, still the introduction of high-yielding varieties (HYVs) and its gradual expansion in new areas has resulted in a net increase in employment opportunities in agriculture. Moreover, due to the increase in non-farm activities in the semi-urban and urban areas as a result of development of transport and communication facilities and as a result of expansion of social network of labourers, there is a rapidly increasing trend of out-migration of agricultural labourers. Though most of these labourers are getting employed in the urban informal sector, number of days of employment available as well as earning is much higher in such employment. Thus, agricultural labourers are not much dependent on landlords for their employment. As a result of this migration of rural labourers to urban areas, a huge supply-demand gap of farm labour is created, especially during the busy agricultural season. The employer farmers are evolving mechanisms to attach agricultural labourers in different ways to ensure supply of labourers during busy seasons.

The main objective of the present paper is to analyze the mechanism by which landlords try to cope with the supply-demand gap of agricultural labourers during busy agricultural season. Attempt has been made to find answer to the following questions: What is the degree of attachment of the agricultural labourers with the employer? Is there any patron-client relationship between the employer and the employee? How effective is this relationship as a coping mechanism to mitigate the problem of supply-demand gap of agricultural labourers? The present paper is based on a micro level study of six villages of Uttar Dinajpur district, a predominantly agricultural and backward district of West Bengal.

Data and Methodology

The present study is based on the existing literature, official documents and field survey. The area of the study was the district of Uttar Dinajpur in West Bengal. For field survey, three types of sampling: (i) stratified, (ii) purposive and, (iii) random have been used.

To select six villages for field survey, all nine blocks of Uttar Dinajpur district were categorized into three groups, viz., highly developed; moderately developed and least developed blocks and each category had three blocks. Then two blocks were randomly chosen from each category (altogether six blocks). Two non-irrigated villages were chosen from the two highly-developed blocks and one irrigated village was chosen from one of the moderately-developed blocks. Again, two non-irrigated villages were chosen from the two least-developed blocks and one non-irrigated village was chosen from one of the moderately-developed blocks. From these six villages, thirty households were taken from each village randomly; among them, 15 households were of landless labourers and 15 households were of the marginal farmers-cum agricultural labourers. Thus, total size of sample was of 180 households. Data were collected through personal interview using specifically-designed questionnaire.

Dynamics of Employer-Employee Relationship

The following types of employer-employee relationship can be found in rural areas on the basis of attachment: (a) Annual Farm Servant (fully attached labourers), (b) Temporary Attached or Semi-Attached Labourers, (c) Casual Labourers (daily basis), (d) Group Labourers (casual, daily or piece rate basis), (e) Landless Agricultural Labourers, and (f) Marginal Farmer-cum-Agricultural Labourers.

Annual Farm Servant (fully attached labourers)

The relationship between annual farm servant and his employer is of patron-client form; the patron saving on the non-wage cost of recruitment and supervising and utilizing hired labour and client benefitting from greater employment-security and higher total earnings (Rao, 1980; Sarap, 1991). But, the existence of annual farm servant is now hardly found. Out of 180 surveyed households in the present study, only two such labourers were found, one in Lalbazar and the other in Jagadishpur. The reason for the decline of this type of farm servants is reluctance of labourers to remain engaged with one employer for a year or more, as they find working as a casual labourer more profitable. Also, most of large farmers have become small and marginal farmers after fragmentation of land and they are not able to utilize the capacity and bear the cost of permanent labourers.

Table 1. Distribution of attached labourers on the basis of duration of association

Block	1 st Category 1 - 5 days	2 nd Category 1 - 2 weeks	3 rd category 1 - 6 months	4 th category > 6 months	Name of village
Highly-developed block	14(15.22)	4(4.35)	1(1.09)	1(1.09)	Jagadishpur
	15(16.30)	5(5.43)	-	-	Kamalpur
Moderately-developed block	12(13.04)	2(2.17)	-	-	Alianagar
	7(7.61)	2(2.17)			Dolua
Least-developed block	8(8.70)	2(2.17)	1(1.09)	1(1.09)	Lalbazur
	13(14.13)	4(4.35)			Solpara
Total	69(75.00)	19(20.65)	2(2.17)	2(2.17)	92

Note: Figures within the brackets are percentages of total number of attached labourers.

Source: Field Survey.

Temporarily Attached or Semi-Attached Labourers

These are labourers who have continuity of association with employer for a few days or month and freedom to work for other employers for the major part of the year. In the villages under study, only a few labourers reported that the attachment of land and old debt were the basis of their attachment. One of the important motivations of the lender-employer in giving such loan is to secure labour services for the peak season.

Casual Labourer (Daily Labourer)

A casual labourer is paid wages in cash or kind or may take wage as advance payment. The casualization of agricultural labourers has increased over the years because of preference of both farmers and labourers for this type of attachment. The number of casual labourers was found more in villages under moderately and least-developed blocks than in highly-developed block.

Group Labourer

It is a group of labourers of equal able-bodied persons to work on piece rate basis. This system is spreading rapidly and is used for major agricultural operations such as transplanting, weeding, harvesting and threshing involving more amount of labour. Each group has a leader who searches work, bargains and controls the group's work. All members, both males and females, get equal remuneration as wages. The income of the group labourers is higher as compared to other categories of labourers. In the villages under

highly-developed block, most of the agricultural activities were being done by the group labourers. The cost of supervision of work done by a group labourer is lower as compared to casual labourers.

Marginal Farmer-cum-Agricultural Labourer

He is a person who works in his own land and also works in other person's land on wages. The income of these labourers is generally higher than of other categories of labourers.

Landless Agricultural Labourers

They mostly do not possess any land or have only a tiny piece of land for farming. In our study area, 90 households were of landless agricultural labourers. Their income is lower than that of other labourers and their source of income is mainly wages. Sometimes, they lease in land from other farmers.

Attachment or Association of Labourer with Employer

Duration of Association

The duration of association between a labourer and his employer was found more important than the duration of contract or agreement. It was observed that the labourers tend to retain their association with the same employer for a long period. The employer and the employee both find it convenient to work continuously because of understanding and familiarity over a long time. The duration of association was also governed by the family relationship, friendship, mutual needs, etc.

Table 2. Distribution of attached labourer on the basis of payment and frequency of payment

Block	Name of village	1 st category (hourly rate)	2 nd category (daily rate)	3 rd category (piece rate)	4 th category (product sharing)	Total
Highly-developed blocks	Jagadishpur	2 (10.53)	4 (21.04)	7 (36.84)	6 (31.58)	19 (100.00)
	Kamalpur	1 (6.67)	3 (20.00)	6 (40.00)	5 (33.33)	15 (100.00)
Moderately-developed blocks	Alianagar	-	6 (42.86)	5 (35.71)	3 (21.43)	14 (100.00)
	Dolua	-	4 (44.44)	3 (33.33)	2 (22.22)	9 (100.00)
Least-developed block	Lalbazar	-	3 (27.27)	5 (45.45)	3 (27.27)	11 (100.00)
	Solpara	2 (11.76)	3 (17.65)	5 (29.41)	7 (41.18)	17 (100.00)
Total	-	5 (5.88)	22 (25.88)	31 (36.47)	27 (31.76)	85 (100.00)

Note: Figures within the brackets are row-wise percentages.

Source: Field Survey.

In terms of blocks, the attachment of labourers was maximum in the villages under highly-developed block (Jagadishpur and Kamalpur), followed by moderately-developed block (Alianagar and Dolua) and least-developed block (Lalbazar and Solpara) (Table 1). In terms of number of labourers, it was highest in the first category of duration (1-5 days), followed by in the categories of 1-2 weeks, 1-6 months and more than 6 months.

The distribution of attached labourers on the basis of payment and frequency of payment, shown in Table 2, revealed that the numbers of attached labourers was highest in the 3rd category (piece rate basis) (36.47%), followed by 4th category (product sharing) (31.76 %), 2nd category (daily rates) (25.88%) and 1st category (hourly rates) (5.88%).

Village-wise, the number of attached labourers on the basis of payment and frequency of payment belonging to 1st category was highest in Solpara (11.76%), followed by Jagadishpur (10.53%) and Kamalpur (6.67%). In the 2nd category, the number of labourers was highest in the village Dolua (44.44 %), followed by Alianagar (42.86 %), Lalbazar (27.27%) and Jagadishpur (21.04%). In the 3rd category, the number of attached labourers was highest in the village Jagadishpur in respect of number, but it was highest in the village Lalbazar (45.45 %) in respect of percentage out of the total number of attached labourers in that village. It was lowest in the village Dolua in respect of number but in respect of percentage, it was lowest in the village Solpara. In the 4th category (product sharing), the percentage was highest in the village Solpara

(41.18%), and lowest in Alianagar (21.43%). It is evident from Table 2 that the hourly payment was not liked by the employer and they preferred to employ the labourers on piece-rate basis. It was profitable for both the employees and the employers.

A radical change is being observed in the worker-employer relation in the rural labour market. The labourers are more interested to work on piece rate, product sharing or casual basis. As a result of mechanization of agriculture, the use of plough and bullock was declining and the time of plantation was becoming shorter. It was found that at the time of plantation of paddy, the employers as well as the labourers preferred to make contract on piece rate basis. But at the time of harvesting, product sharing was preferred. It was made in the ratio of 20:4 (*charbhaga*), i.e. if the employer gets 100 kg product, the labourers will get 20 kg.

Linkages

The distribution of attached labourers on the basis of linkages between employer and members of labourer family is depicted in Table 3. On this basis, the number of attached labourers was highest (23.68 %) in the village Jagadishpur and lowest in the village Solpara (10.53%) and Dolua (10.53%). For the second category (2 members), the number of labourers was highest in Jagadishpur (26.67%), followed by Kamalpur (20%). For the 3rd category, in the villages Kamalpur (50%) and Lalbazar (50.00%) the same number of labourers had linkage with the employer.

Table 3. Distribution of attached labourers on the basis of linkages between employers and members of the labourers family

Block	Name of village	Numbers of workers interlinked with the employers and the members of the labourers' family			
		1 member	2 members	3 & above members	Total
Highly-developed block	Jagadishpur	9(23.68)	4(30.77)	-	13(24.53)
	Kamalpur	8(21.05)	3(23.08)	1 (50.00)	12(22.64)
Moderately-developed block	Alianagar	7(18.42)	1(7.69)	-	8(15.09)
	Dolua	4(10.53)	1(7.69)	-	5(9.43)
Least-developed block	Lalbazar	6(15.79)	2(15.38)	1(50.00)	9(16.98)
	Solpara	4(10.53)	2(15.38)	-	6(11.32)
Total		38(100)	13(100)	2(100)	53(100)

Note: Figures within the brackets are column-wise percentages.

Source: Field Survey.

Table 4. Distribution of semi-attached labourers on the basis of freedom to work for different employers

Block	Name of village	Full freedom	Without freedom of work	Conditional freedom
Highly-developed block	Jagadishpur	18 (23.08)	-	1 (12.50)
	Kamalpur	14 (17.95)	-	1 (12.50)
Moderately-developed block	Alianagar	12 (15.38)	-	2 (25.00)
	Dolua	9 (11.54)	-	-
Least-developed block	Lalbazar	11 (14.18)	-	1 (12.50)
	Solpara	14 (17.95)	-	3 (37.50)
Total		78 (100)	-	8 (100)

Notes: (i) There was no labour without freedom to work. (ii) Figures within the brackets are column-wise percentages.

Source: Field survey.

Freedom to Work

The distribution of attached labourers on the basis of freedom to work for different employers, given in Table 4, reveals that there was not a single labourer without freedom of work. Most of the attached labourers had full freedom to work for other employers. In respect of full freedom of the attached labourers, the village Jagadishpur (23.08%) recorded the highest position, followed by Kamalpur (17.95%), Solpara (17.95%), Alianagar (15.38%), Lalbazar (14.18%) and Dolua (11.54%). In the case of conditional freedom, the village Solpara (37.50%) recorded the highest position, followed by Alianagar (25.00%), Jagadishpur (12.5%) and Kamalpur (12.5%).

Distribution of Attached Labourers on the Basis of Attachment

It was found that the full or partial attachment relations between labourers and employers were based

on certain factors, the important ones are: (i) allotment of land; (ii) current consumption loan, and (iii) old debts. But it is also true that a long duration attachment might exist without any of these factors. In the allotment of land, the employer allots a piece of land to the labourer who cultivates it with the help of the employer's bullock and plough and receives a fraction of the crop output. He sometimes receives even other kinds of inputs from the employer, e.g. seeds, fertilizers, etc. This is the case of a fully attached labourer receiving a part of his payment from the employer in the form of the produce of the allotted land (Bardhan and Rudra, 1980). Under semi-attachment, the labourer works for the employer only on such days when his services are required and he receives payment only for those days of work. The employer thus ensures for himself the supply of labour of a requisite kind and quality for any time that he may need, whereas he does not have to pay for the entire year.

Table 5. Distribution of attached labourers on the basis of attachment

Block	Name village	Basis of attachment		
		Allotment of land	Consumption loan	Old debt
Highly-developed block	Jagadishpur	1 (50.00)	4 (19.02)	0
	Kamalpur	0	3 (14.29)	0
Moderately-developed block	Alianagar	0	5 (23.81)	0
	Dolua	0	2 (9.52)	0
Least-developed block	Lalbazar	1 (50.00)	1 (4.76)	0
	Solpara	0	6 (28.57)	0
	Total	2 (100)	21 (100)	0

Note: Figures within the brackets are column-wise percentages.

Source: Field Survey.

In another type of attachment the employer is a source of consumption loan, currently taken and liquidated by the end of the current crop year. In our study, out of 55 semi-attached labourers only 21 labourers reported consumption loan as the basis of attachment with employers. There was not a single labour respondent in any of the villages under study who reported debt as the basis of his long-term attachment to an employer (Table 5).

In our study, out of 85 attached labourers, only 2 reported allotment of land as the basis of attachment with the employer and 21 reported consumption loan as the basis of attachment with the employers. The employer and the employee both find it convenient to work continuously due to mutual understanding and familiarity over a long time, without any binding obligation.

Conclusions and Suggestions

The study has found that farm labourers are employed under different terms and conditions in the study area. These labourers have been divided into six categories, viz. (i) annual farm servant (fully attached labourers), (ii) temporary attached or semi-attached labourers, (iii) casual labourers, (iv) group labourers, (v) landless agricultural labourers, and (vi) marginal farmer-cum-agricultural labourers. Different categories of agricultural labourers are employed under different terms and conditions under the same employer or different employers. The existence of fully attached or annual farm labourer has become rare in this district. Semi-attached labourers have been divided into two groups on the basis of the period of contract and the freedom of choice of the employers. The labourers in

the first group have no freedom to work for other employers during the busy season of agriculture. The second group of labourers enjoy more freedom to work for other employers. The basis of attachment (full or partial) has been found as (i) allotment of land; (ii) current consumption loans, and (iii) old debt.

Since a casual labourer enjoys more freedom in choosing employer and working more freely as compared to semi-attached labourers and fully attached labourers, the casualization in agricultural labourers has increased over the years.

The fourth category of farm labourers is of group labourers. These groups are formed with equally able-bodied persons and prefer to work on the basis of piece rate or product sharing basis. This attachment is spreading rapidly and is used for major agricultural operations such as transplanting, weeding, harvesting and threshing which involve more labour. There are no fixed hours of work for them. The income of a group labourer is higher than that of other categories of labourers. A heterogeneity in labour contract has been observed in Uttar Dinajpur district. Each labour contract differs from the other in respect of terms and conditions between employers and employees. It has been observed that most of the agricultural labourers in the study area were employed as casual or group labourers.

One of the important reasons for scarcity of farm labour is the availability of non-farm employment in semi-urban and urban areas within or outside the state. Another reason is the implementation of various wage employment (including MGNREGA), self-employment and social welfare programmes by the government. The study has suggested that to cope with the situation

of supply-demand gap of farm labour, there is no other alternative but to have adoption of selective mechanization of farm activities. Some degree of mechanization is already there which is visibly on the rise. In future, there will be more inducement to undertake mechanical innovation to tackle the growing supply-demand gap in the farm labour.

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