Rural-Urban Migration in Bangladesh: A Micro-Level Study*

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Introduction

A study of migration is of key importance in social science, particularly in population studies. The importance emerges not only from the movement of people between places but also from its influence on the lives of individuals and urban growth. Broadly migration is a relocation of residence of various duration and various nature. But, generally, rural-urban dominates the domain of research and planning as its role in changing the lives of migrant families both at the place of origin and destination.

Urbanisation has been one of the dramatic global social transformations of the 20th century. The accelerating rate of urbanisation is high among the least developed countries of Asia. For the period 1970 to 1990, the average annual growth rate of urban population was 6.5 per cent for Bangladesh, 3.4 per cent for India and 4.2 per cent for both Pakistan and Sri Lanka (Hugo, 1992). However, the urban growth rate is dominated mainly by rural-urban migration and it contributes between three-fifths to two-thirds of this growth (UN, 1993). Though the incidence of rural-urban migration in any developing country is higher, a distinct selectivity with respect to age, sex, caste, marital status, education, occupation *etc*., occurs and the propensity of migration differs significantly among these socio-economic groups (Lee, 1966; Sekhar, 1993; Yadava, 1988). Long rural development efforts neither could reverse the trend in rural-urban migration nor could it minimise uneven economic opportunities such as off-farm employment and earning (Robert and Smith, 1977).

Migration differentials have significant role in identifying the nature and strength of the socio-economic and demographic impacts of the population concerned. Many researchers have tried to establish some uniformly applicable migration patterns for all countries at all times. However, only migration by age has been found to be more or

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less similar for developed as well as developing countries. It is established that adult males are more inclined to migrate than other people of the community (Rogaia, 1997; Singh and Yadava, 1981a). Generally, the differentials in migration (selectivity of certain person or group to be more mobile than others) have been studied mainly by age, sex, marital status, education and occupation. Several studies reported that determinants of migration vary from country to country and even within a country, it varies depending on the socio-economic, demographic and cultural factors. High unemployment rate, low income, high population growth, unequal distribution of land, demand for higher schooling, prior migration patterns and dissatisfaction with housing have been identified as some of the prominent determinants of rural out-migration (Bilsborrow *et al.*, 1987; Kadioglu, 1994; Nabi, 1992; Sekhar, 1993; Yadava, 1988).

The propensity of migration is usually influenced by a combination of push-pull factors. People migrated to cities and towns because they are attracted by livelihood opportunities. Studies on migration have established a positive association between levels of infrastructural development of a region and the magnitude of out-migration (CUS, 1990). Regardless of skill, the migrated population can find diversified livelihood opportunities with various incomes in the towns and cities. Thus, the poor rural population considers migration a livelihood coping strategy. On the other hand, a considerable number of the population migrates to urban areas from villages for higher/better education, employment and investment opportunities. These privileged migrants occasionally create employment opportunities in urban areas for the poor migrants mostly in the form of wage labourer. Nevertheless, both these categories are driven preponderantly by economic reasons. Information and communication also influence the decisions of migration (CUS, 1990).

Migration studies in different regions of developing countries have generally dealt with the economic aspects of migration. However, majority of these studies has dealt with the differentials and determinants of migration focusing mainly on causes and consequences of migration (Afsar, 1995; Hugo, 1991; Mclnnis, 1971; Mehta and Kohli, 1993; Selvaraj and Rao, 1993; Stoeckel *et al*. 1972; Wintle, 1992; Yadava, 1988). Apart from social and economic impacts, migration of an individual produces demographic impacts as well. The physical separation between husband and wife as a result of migration gives the female partner less scope for conception that results in low fertility of the migrant households (Sharma, 1992). Therefore, it is important to understand intentions of migration, extent

of migration and its effect on the growth of urban population for proper urban planning, as well as, for furthering rural development.

In Bangladesh, adequate attention to migration aspects has not given which may be due to lack of national level data. The existing micro-level studies mostly investigated the characteristics of migrants at destination places mainly Dhaka city (CUS, 1988, 1990 and 1996), giving a little attention to the causes of out-migration from villages (Afsar, 1995; Chaudhury, 1978). Majumder *et al*. (1989) and Amin (1986) studied the economic consequences of migration based on sample surveys conducted in Dhaka city. Chaudhury (1980) found that out-migration is generally higher from the villages characterised by land scarcity, unequal distribution of land, and high proportion of agricultural labourer. Afsar (1995) argued that migrants often benefited more than non-migrants because of their innovative, risk taking and desperate nature. The benefits included higher or regular income, gain in wealth, greater access to public services and education.

The census data of Bangladesh is not sufficient to study the causes and consequences of migration because only some information about place of birth is available in the census schedule. Accordingly, it is important to give attention to micro-level studies based on sample surveys, which have the advantage of identifying regional heterogeneity. In fact, the existing studies in Bangladesh have failed to address causes and consequences of migration at the individual and/or household level of a particular region. The studies carried out in Bangladesh are mainly destination based, and attention on causes and consequences of migration at individual or household level of a particular origin is ignored.

It is important to note that the characteristics of migrants are not sufficient to explain the selectivity of migration because the decision of a person to migrate is largely dependent on his family background. The individual characteristics can only give some idea about type of people involved in the process of migration. Thus, it is important to study the characteristics of migrant households to get an idea about the selectivity of migration process. This will provide a better understanding as to why some families participate in migration process while others not.

The aim of this paper is to focus on the differentials and determinants of migration, and hence identifies the factors influencing out-migration. The differentials limit to four

aspects of migration. They are: (1) selectivity of migrants, that is, what kind of persons tending to be disproportionately selected for migration; (2) nature of migration (3) factors active for migration and, (4) destination of migrants. Further, the selectivity of migrants is discussed in relation to age, marital status, education, and occupation of the migrants. The migration rate, which helps to understand the insight of migration differentials in a community, is discussed in relation to a number of individual characteristics.

Data and Methods

The data for this study has been collected from 10 rural *mauzas*/villages of Comilla district of Bangladesh during July-October, 1997. A cluster sampling was adopted to select *mauzas*/villages and covered 2696 sample households. To cover the information on migration, a modified definition of household was adopted. A household has defined as a dwelling unit where a group of persons usually live together and takes food from common kitchen. It, however, includes those who live outside the village but claim the household to be their own. Persons of this category work outside the villages and often send remittances. Such persons are called the migrated members of the household and such households are known as migrant households. Naturally, complete household migration is not included in this study.

It is difficult to identify the differentiating factors between migrant and non-migrant households. For example, the socio-economic position of a migrant household may change significantly after receiving remittances from the migrant member(s). It is therefore not justified to compare the present position of migrant households with their non-migrant counterpart. However, some household characteristics such as education of the household, main occupation of the household, agricultural land owned by the household, family size, and number of adult male member(s) in the household have been taken to have a comparative study between migrant and non-migrant households. It is expected that these variables influence migration decision at the household level.

The multivariate logistic regression model is considered an appropriate tool to analyse such data since the dependent variable, type of household, is dichotomised (non-migrant or migrant). As discussed above, the independent variables comprise several attributes of households but not of individuals. They are: land (farming) ownership, occupation, education, number of adult men, and family size.

The measurement of landholding of a household, family size, and number of adult male member(s) is straightforward. The educational status of a household is determined by taking the highest educational level obtained by the member (male aged 15 years and above) of the household. The occupation of a household is determined by considering the main source of income of the household. The information related to main occupation of male members along with their income and amount of agricultural land owned were considered to determine the household occupation. The categories and measurement of educational status and occupation of a household are given in *Appendix*.

Results and Discussion

As mentioned earlier, the migration differentials at individual level have been discussed into four aspects of migration: selectivity of migrants, nature of migration, factors active for migration, and place of migration. The findings are discussed categorically according to these four features of migration. The migration rate gives the insight view of migration differentials. It is necessary to compute the migration rate for the characteristics of a community, which will not change with in a short span of time. The migration rates is discussed in relation to some individual characteristics *viz*. present age, education and occupation. These rates are computed by considering the migrants who migrated during January 1993 to June 1997 (about 5 years preceding the survey). It is expected that these above mentioned individual characteristics would not change for a community within a short period of time. Further, migration rate from different *mauzas*/villages have also been computed based on the total number of migrants obtained from different villages at the survey point.

1.1 Selectivity of Migrants

The individual characteristics *viz,*. age, marital status, education, and occupation of the migrants have been studied to understand the selectivity of migration process.

1.1.1 Age of the Migrants

Analysis of migration differential by age reveals the impact of migration on socio-economic and demographic structures at both the places of destination and origin. Hugo (1981) contends that the loss of young adults through migration from villages leads to undermining of agricultural production by way of reducing agricultural labourer. One

study in Uttar Pradesh, India found that out-migration of young males leads to decline in fertility at the place of origin (Singh *et al.*, 1981). Migration differential by age has been almost generalised and it is higher for the people aged between 15 and 40 (Yadava, 1988).

Table 1 shows the distribution of migrants according to current age and age at migration. The rate of migration was found significantly higher for the people who belonged to the age groups (20-24) and (25-29) years (about 13 per cent), followed by age group (30-34) years (6.8 per cent). It was only less than one per cent for the age group (0-14) years and the rate was about 2 per cent among the age group 40 years and above.

The age distribution of migrants clearly shows that majority of them were very young at the time of their first migration. Maximum numbers of migrants were of ages between 20 and 24 years (29.5 per cent) at the time of migration, followed by those (21.6 per cent) having age between 15 and 19 years (Table 1). The proportion of migrants remarkably decreased with increased age group. Only 9 per cent people migrated at their age 35 years & above, and about 13 per cent migrated before reaching age 15 years. The average age at the time of migration was about 22 years with a standard deviation of 8.7 years while the average present age of the migrants was found about 28 years with a standard deviation of 9.7 years. The age distribution of migrants, however, is consistent with other studies mentioned above.

1.1.2 Marital Status of Migrants

The migration decision of an individual is influenced by marital status. It is observed that the distance moved by a migrant is found closely associated with the marital status, and depends, to some extent on his/her responsibilities towards the family. Singh (1985) reported that married persons usually migrate shorter distances in order to visit his family frequently. Some studies have also reported that highly educated married migrants are mostly accompanied by family members, as compared to less educated or illiterate migrants (Sharma, 1984; Singh and Yadava, 1981a).

It was found that the percentages of married and unmarried migrants were 54 and 46 respectively (Table 2). The proportion of married migrants was found comparatively low in our study areas as compared to rural Northern India (about 85 per cent; Yadava, 1988). It may be due to the fact that a large proportion of them were found migrated before the age of twenty and it is likely that they may get married after being migrated.

1.1.3 Education of the Migrants

As mentioned earlier, selectivity of migration varies according to education of the migrants too. Several studies showed that migrants are usually more educated than non-migrants with respect to the place of origin, and less educated than non-migrants with respect to the place of destination (Singh and Yadava, 1981b; Singh, 1985). Table 3 shows the distribution of migrants according to their educational attainment. More than 50 per cent migrants attained secondary and higher-secondary education, whereas about 12 per cent attained graduation. The percentages of illiterate and primary educated migrants were about 13 and 23 respectively.

Though the proportion of graduates was lowest among the migrants, the rate of migration was highest (21 per cent) for this category. Thus, an increased rate of migration was found with the increased level of education. A high rate of migration for educated people may be due to the fact that there is a little scope for them for getting a suitable job in the rural areas. Further, educated people are less interested in taking up agriculture as their occupation (Singh and Yadava, 1981b).

1.1.4 Occupation of the Migrant

Availability of job opportunities at the place of destination, whatsoever be the quality, play a very important role in regard to the process of migration decision. On the other hand pre-migration occupation also helps to understand the causes i.e. push factors behind migration. In this section migrant's profiles are discussed according to their occupation opted at the place of destination as well as pre-migration occupation.

The distribution of migrants according to their occupation both at the place of origin (before migration) and at the place of destination (after migration) are shown in Tables 4a and 4b respectively. The findings indicate that about 35 per cent of the migrants were involved with studies and about 24 per cent were unemployed before migration. Further, 17 per cent of the migrants were engaged in agriculture (landowner) and 8.6 per cent were engaged in labour selling, mostly in agricultural sector. However, the rate of migration was observed to be highest (about 21 per cent) among population who were unemployed and lowest (0.7 per cent) who were engaged in household work/others (including unable to work). The rate of migration among students was

found about 5.2 per cent though this occupational stratum contributed about 35 per cent of the total migrants.

In the context of occupation opted at the place of destination, it was found that about 27 per cent were employed in service/job, 16 per cent were engaged as labourer, about 10 per cent in business, and about 9 per cent were engaged in studies. The occupation of rest (about 31 per cent) was difficult to identify because they were working abroad. The family members living at the place of origin hardly know their occupations. However, a majority of them were found engaged in contractual/temporary employment in foreign countries, and usually after completion of the tenure they back home in most of the cases (Chowdhury, 1978).

1.2 Nature of Migration

The nature of migration gives an idea about the employment status of the migrants at the place of destination. The distribution of migrants according to nature of migration is shown in Table 5. About half of the migrants moved for temporary employment and about 26 per cent for permanent employment. About 12 per cent were migrated as dependent member and about 6 per cent were migrated for education. To test the association between type of migration and the educational level, some of the columns were merged in order to get a reasonable number of observations in each cell. The value of chi-square was computed by amalgamating the cell frequencies of column 4 with column 6. The nature of migration showed a significant and consistent relationship with the educational level of migrants (Table 5). Migration due to permanent employment was increased with the increased level of education. Among illiterates, it was found that more than 60 per cent were migrated for temporary service and about 8 per cent for permanent service. Among graduates, about 43 per cent migrated for permanent service, about 20 per cent for temporary service and about 23 per cent for continuing their studies. Those who migrated for studies, their rate is significantly higher for the migrants who obtained secondary level education or more, which may be due to the fact that institutes for post secondary level education are inadequate in most of the rural areas of Bangladesh.

1.3 Factors active for Migration

The causes of migration are usually explained by using two broad categories, namely, push and pull factors. For example, people of a certain area may be pushed off by poverty to move towards a town and/or industrial base for employment. While a better employment or higher education facility may pull people to avail these opportunities. People's decision to migrate from one place to another may be influenced by many non-economic factors such as, personal maladjustment in the family or community. When maladjustment arises, economic disadvantage may appear as a strong influential or push factor in migration decision of an individual.

The findings however show that it is the economic opportunity that played dominant role in migration decision. Over 38 per cent of the respondents reported that they migrated due to poverty while another 30 per cent did so to find out a better job opportunity (Table 6a). Further, about 19 per cent migrants were pushed off due to the influence of their family members. Only about 6 per cent were migrated for higher studies.

It is documented that migration decision of an individual is influenced not only by the push factors but also by the pull factors (Yadava, 1988). About 48 per cent were found migrated to a particular destination place due to better opportunity, about 22 per cent due to presence of some friends and/or relatives, and another 22 per cent migrated due to availability of job at a particular place of destination (Table 6c).

The distribution of push factors according to education and pre-migration occupation of migrants are shown in Tables 6a and 6b respectively. The values of chi-square are computed by merging the cell frequencies of some of the push factors viz. influence by villager, influence by family members and studies with 'others' to get a reasonable number of observations in each cell. Further, pre-migration occupation 'business' was merged with 'job/service' and 'HH work' was merged with 'unemployed' in order to compute the value of chi-square in Table 6b. It was found that push factors were significantly associated with the level of education as well as pre-migration occupation of the migrants.

Among illiterate migrants, maximum were found migrated due to poverty (45 per cent), followed by family influence (32.2 per cent) and job searching (12.8 per cent) (Table

6a). For graduate level migrants, the main push factor was found as job searching, followed by poverty and studies. From the above findings, it is transparent that poverty was the main push factor among illiterate or moderately educated migrants, while job searching was the main push factor for those who attained at least graduate level education.

For agriculturist (land owner), it was found that majority were migrated for job searching (39.5 per cent) followed by poverty (34 per cent), whereas for agriculture labourers, it was highest due to poverty (68.3 per cent) followed by job searching (18.8 per cent) (Table 6b). About 56 per cent were migrated for job searching and about 28 per cent due to poverty who were engaged in any job/service. It may be due to their dissatisfaction with the job at the place of origin and also for low salary. It is observed that those who were engaged in business, the maximum were migrated for poverty (59.3 per cent), followed by job searching (24.1 per cent). It is interested to note that those engaged in studies at the place of origin, about 40 per cent migrated for job searching, 26 per cent for poverty and about 16 per cent migrated for continuing their studies. However, migrants among those who were unemployed at the place of origin, about 61 per cent were migrated due to poverty and about 25 per cent migrated for job searching. Thus this study reveals that those who were engaged in agricultural labourer, business and unemployed at the place of origin, they were mostly migrated due to poverty; and those who were engaged in agriculture (land owner), job/service, or in study at the place of origin were mostly migrated for job searching.

1.4 Place of Migration

The quality and quantity of opportunities available at a particular place of destination play a major role in attracting migrants towards it. In the developing countries like Bangladesh migrants of a particular origin follow some established routes because resources (opportunities) are disproportionately distributed to a few cities.

Table 7a shows the distribution of migrants at various destination places according to place of origin. The destination places are grouped taking into accounts the geographical location and distance. The findings indicate that about 37 per cent migrants were migrated to foreign countries, and remainder migrated mainly to some big cities of the country. Majority of the international emigrants was migrated to UAE and Malaysia. About 32 per cent were found migrated to urban areas of Dhaka division (mainly Dhaka city), about 15

per cent to Chittagong division (mainly Chittagong city) and about 11 per cent to urban areas of Comilla district. A negligible proportion was found migrated to Sylhet division (3.1 per cent) and Khulna/Rajshahi division (1.7 per cent).

It is observed that migrants from a particular origin tend to migrate in cluster/group to some specific destinations. For example, it was found that out of 134 total migrants, 84 per cent migrated to foreign countries and only 16 per cent migrated to other destination places from *Chandishkara mauza*. Again, from *Dombaria mauza*, about 6 per cent migrated to foreign countries, about 48 per cent to Dhaka division and another 22 per cent to Chittagong division.

The migration rates from different *mauzas*/villages have also been computed to get an overview of the migration intention. Table 7b represents the migration rates for different villages/*mauzas* under study. The rates are computed on the basis of the total number of migrants from different villages at the time of survey. The overall migration rate was found to be about 7.4 per cent. The out-migration rate was found highest (14.3 per cent) for *Gazipur mauza* of *Muradnagar* thana, followed by *Baro Dushia mauza* (10.2 per cent) of *Brahmanpara* thana. The migration rate was lowest for *Muriara* (2.9 per cent) *mauza* of *Barura* thana. A wide variation in migration rate from villages/*mauzas* has been observed which may be due to variation in transport facilities, commutation facilities, and also differences in the socio-economic status of the villages/*mauzas* under study.

2. Determinants of Migration at the Household Level

As mentioned earlier, the determinants of migration at household level provide a better understanding as to why some families participate in migration process while others not. Multivariate logistic regression has been applied to study the determinants of migration. Table 8 shows the estimated regression coefficients along with the standard errors, relative risks and the number of cases for the categories of variables studied. The findings indicate that all the variables included in the analysis have had significant effect on rural out-migration except the variable ‘family size’.

An increased risk of out-migration from a rural household has been observed with the increased level of education. The risk of migration was 2.15, 2.19, 4.44 and 2.69 times higher for the households with educational level primary, secondary, SSC/HSC

(secondary school certificate/higher secondary certificate) and graduate respectively as compared to households with no education. In other words, the propensity of out-migration was remarkably higher for the households whose member(s) attained at least primary education, which may be, as mentioned earlier, due to the fact that educated people generally like a white collar job and such jobs are not usually available (if available, not sufficient) in rural areas.

It was found that households with occupation non-agricultural labourer, service and business have greater chance of migration as compared to households with occupation 'agriculture (owner)'. The risk of migration has been found 11, 4.4 and 3.2 times higher for households belonging to occupation as non-agricultural labourer, service and business respectively as compared to agriculture (owner). This may be because of a little scope of getting an occupation other than agricultural sector in rural areas.

Landholding of a household plays an important role in determining rural out-migration in an agrarian economy where the people are mostly dependent on land for their livelihood. Several studies have showed that out-migration from rural areas is closely associated with unequal distribution of resources, particularly land (Sovani, 1961; Samsuddin, 1981). However, studies conducted in developing countries on the relationship between landholding and propensity to move, have shown dissimilar results. For example, Hill (1972) found that poorer and landless have a greater propensity of migration than richer and big landowners. On the other hand, Sekhar (1993) found that out-migration is higher for the small and medium land owning families and lower for either landless or big landowners. The findings of this study do not support strongly any of the above proposition. The risk of out-migration was found significantly higher for the households with agricultural land more than 50 decimals (½ acre) as compared to landless. However, out-migration risk was 22 per cent lower for the households with agricultural land 06-50 decimal as compared to landless. The risk of out-migration was 1.6, 2.1, 1.5 times higher among the households with agricultural land 51-100, 101-200 and 201+ decimal respectively as compared to landless households. A higher risk of out-migration from the households with medium or big size of agricultural land may be due to the fact that persons from such households were found mainly migrated for better opportunity (schooling, job, business etc.). A lower risk of out-migration from the households with agricultural land 06-50 decimal may be because the persons from such households usually worked as share cropper or

agricultural labourer, and earnings from such land, to some extent, cover the cost of livelihood for their survival. Further, persons from the landless households were found mainly migrated for their survival, because a work/job may not be available in all the seasons in the rural areas and they may not be capable to fulfil their minimum cost of livelihood during a lean season.

Several studies argued that migration is positively related with family size (Connell *et al*., 1976; Sekhar, 1993; Upton, 1967). In other words, peoples migrate mostly from large households because it is easy to spare some members to go outside for work. This study also showed a similar result. The average size of the migrant and non-migrant households was found 7.3 and 5.6 members respectively. However, the multivariate analysis revealed that family size has no significant effect on out-migration.

Nevertheless, the number of adult male members in a household may describe the outcome of an event (out-migration) well than the family size. In study villages the average number of adult male members was found 2.58 for migrant households and 1.54 for non-migrant households. The logistic regression analysis indicates that number of adult male member(s) in a household has had a significant effect on rural out-migration. A substantially increased risk of out-migration from a household was noted with the increased number of adult men in the household. As compared to single adult male member, the risk of rural out-migration was about 2.7 times higher for the households with 2-3 adult male members and 19.3 times higher if the adult males were more than three. A higher risk of out-migration from the households with more than one adult male member may be due to the fact that it is easier to spare some persons to migrate outside and remaining members can look after the household's work.

Thus, the findings indicate that the risk of out-migration was higher for the households attaining at least primary level of education, having occupation other than agriculture, agricultural land more than 50 decimal, and having more than one adult male members.

Conclusions

A study of migration differentials at individual level indicated that persons involved in the process of rural out-migration were adult and more educated. Most of them were engaged in studies or unemployed before migration. About half of the migrants have migrated for temporary service and about one quarter has migrated for permanent job. Further, educational attainment of the migrants was found related with the permanent type of migration, whereas temporary type of migration mainly associated with illiterate migrants. The migration rate was found significantly higher for educated as well as unemployed people, and also for the people belonging to the ages 20-29.

Poverty, job searching and family influence were the main push factors for out-migration, while better opportunity, prior migrants and availability of job were the main pull factors behind migration. Education of the migrant and their occupation at the place of origin was significantly related with the push factors of the migrant. Poverty was found to be the main push factor for illiterates and moderately educated migrants and job searching was the main push factor among the migrants having graduate level education or more. Also poverty has been the main push factor for the migrants who were engaged in agricultural labourer, business and unemployed, while job searching factor was main for the migrants engaged in agriculture (land owner), job/service and students at the place of origin.

It is found that more than one third migrants were migrated to foreign countries (mainly UAE and Malaysia), and about one third to Dhaka division (mainly Dhaka city), followed by Chittagong division (mainly Chittagong city) and Comilla urban area.

Multivariate logistic regression analysis suggested that education of the household, occupation of the household, agricultural land owned by the household, and number of adult male member - all determined significantly the risk of rural out-migration. The risk of out-migration was more than double for the households whose member attained at least primary level education. As compared to the illiterate households, the risk of out-migration was about four times higher for the households whose member attained secondary or higher secondary level of education. The risk of out-migration was significantly higher for the households having occupation other than agriculture, and it was 11 times higher for the households with occupation non-agricultural labourer. The

risk of out-migration was higher for the households with agricultural land more than 50 decimal and it increased sharply with the increased number of adult male member(s).

This study may help the planners and social scientists for implementing and extending the rural development programmes, as it gives an overview of the people involved in rural out-migration process and also identify the root causes of migration at individual and household level. Further proper urban planning can be designed since this study also provides some idea about the migration intentions and directions.

References

Afsar, R. (1995), "Causes, Consequences and Challenges of Rural Urban Migration in Bangladesh", Doctoral Dissertation, University of Adelaide, Australia.

Amin, A.T.M.N. (1986), "Urban Informal Sector: Employment Potentials and Problems in Bangladesh", In: *Selected issues in Employment and Development*, edited by R. Islam and M. Mugtada, New Delhi: ILO, ARTEP.

Billsborrow R.E., T.M. McDevitt, S. Kassoudji and R. Fuller (1987), "The Impact of Origin Community Characteristics on Rural-urban Out-migration in a Developing Country" *Demography*, vol. 24(2), 191-210.

Chaudhury, R.H. (1978), "Determinants and Consequences of Rural Out-Migration: Evidence from Some Villages in Bangladesh", *Oriental Geographer*, vol. 22 (1 & 2), 1-20.

Chaudhury, R.H. (1980), "Urbanisation in Bangladesh, Dhaka", *Centre for Urban Studies*, University of Dhaka, Bangladesh.

Connell, J., B. Das Gupta, R. Laishley and M. Lipton (1976), "Migration from Rural Areas: The Evidence from Village Studies" Oxford University Press, Delhi.

CUS (1988), "Slums and Squatters in Dhaka City", *Centre for Urban Studies*, Dhaka, Bangladesh (Report by Nazrul Islam *et al.*).

CUS (1990), "The Urban Poor in Dhaka", *Centre for Urban Studies*, Dhaka, Bangladesh.

CUS (1996), "The Urban Poor in Bangladesh", (Edited by Nazrul Islam), *Centre for Urban Studies*, Dhaka, Bangladesh.

Hill, P. (1972), "Rural Hausa, A Village and Setting", Cambridge University Press, Cambridge.

Hossain, M.Z. (2000), "Some Demographic Models and their Applications with Special Reference to Bangladesh", Unpublished Ph.D thesis in Statistics, Banaras Hindu

University, India.

Hugo, G.J. (1981), "Population Movement in Indonesia during the Colonial Period", In: Fox, J.J. and others (eds.) '*Indonesian, Australian perspectives'*, Canberra: The Australian University Press, 95-136.

Hugo, G.J. (1991), "Rural-Urban Migration, Economic Development and Social Change: Some Important Issues", paper presented in the workshop on the Urbanisation and Urban Poor, Dhaka, Bangladesh Institute of Development Studies, July 27-29.

Hugo, G.J. (1992), "Migration and Rural-Urban Linkages in the ESCAP Region", Paper presented for the pre-conference seminar of the Fourth Population Conference on Migration and Urbanisation: Inter-Relationship with socio-economic Development and Evaluating Policy Issues, Seoul, Republic of Korea.

Kadioglu, A. (1994), "The Impact of Migration on Gender Roles: Findings from Field Research in Turkey", *International Migration*, vol. 32(4), 533-561.

Lee, E.S. (1966), "A Theory of Migration", *Demography*, vol. 3, 47-57.

Majumder, P., S. Mahmud and R. Afsar, (1989), "Squatter Life in the Agargaon Area", Dhaka Bangladesh: BIDS, Mimeo.

Mclnnis, M (1971), "Age, Education and Occupation Differentials in Interregional Migration; Some Evidence for Canada", *Demography*, vol-8, 195-204.

Mehta, B.C. and A. Kohli (1993), "Spatial Mobility of Population: An Inter-District study of Rajasthan", *Demography India*, vol. 22(2), 247-266.

Nabi, A.K.M.N. (1992), "Dynamics of Internal Migration in Bangladesh", *Canadian Studies in Population*, vol. 19(1), 81-98.

Robert, L.B. and J. Smith (1977), "Community Satisfaction, Expectations of Moving and Migration" *Demography*, vol. 14(2), 147-167.

Rogaia, M.A. (1997), "Sudanese Migration to the New World: Socio-economic Characteristics", *International Migration*, vol. 35(4), 513-536.

Samsuddin, S. Dara (1981), "Aspects of Migration from Rural Areas to Industrial-Urban Centers of Bangladesh", In: R.B. Mandal (ed.), *Frontiers in Migration Analysis*, Concept Publishing Company, New Delhi.

Sekhar, T.V. (1993), "Migration Selectivity from Rural Areas: Evidence from Kerala", *Demography India*, vol. 22(2), 191-202.

Selvaraj, K.G. and P.S.S. Rao (1993), "Household Migration-Urbanisation and Consequences", *Demography India*, vol. 22(2), 203-210.

Sharma, H.L. (1992), "A Study of Relationship between Migration and Fertility", *Demography India*, vol. 21 (1), 51-57.

Sharma, L. (1984), "A Study of the Pattern of Out-migration from Rural Areas", an unpublished Ph.D. Thesis, Banaras Hindu University, India.

Singh, R.B. (1986), "A Study of Migration Pattern from Rural Areas", Unpublished Ph.D. Thesis, Department of Statistics, Banaras Hindu University, Varanasi, India.

Singh, S.N. and K.N.S. Yadava (1981a), "On Some Characteristics of Rural Out-migration in Eastern Uttar Pradesh ", *Society and Culture*, vol. 12 (1), 33-46.

Singh, S.N. and K.N.S. Yadava (1981b), "Dimensions of Rural-Urban Migration in India and their Impact on Socio-economic and Demographic Factors", In: *Urbanisation and Regional Development*, edited by R.B. Mandal and G.L. Peters, New Delhi: Concept Publishing Company, 393-411.

Singh, S.N., R.C. Yadava and K.N.S. Yadava (1981), "A Study of Fertility of Migrants", *Health and Population – Perspectives & Issues*, vol. 4(1), 159-65.

Singh, S.R.J. (1985), "A Study of Rural Out-migration and its Effects on Fertility", Unpublished Ph.D thesis in Statistics, Banaras Hindu University, India.

Sovani, N.V. (1961), "Urban Social Situation in India", *Arthavinjana*, vol. III(2).

Stoeckel, J., A.K.M., A. Chowdhury and K.M.A. Aziz (1972), "Out-migration from a Rural Area of Bangladesh", *Rural Sociology*, vol. 37, 236-245.

United Nations (1993), "State of Urbanisation in Asia and the Pacific", Bangkok: ESCAP.

Upton, M. (1967), "Agriculture in South Western Nigeria", Department of Agricultural Economics, Development Studies No. 3, Migration, University of Reading.

Wintle, M. (1992), "Push-Factors in Emigration: The Case of Province of Zeeland in the Nineteenth Century", *Population Studies*, vol. 46, 523-37.

Yadava, K.N.S. (1987), "Volume and Pattern of Rural-Urban Migration in India", Seminar paper presented in the department of Demography, Australian National University, Canberra.

Yadava, K.N.S. (1988), "Determinants, Patterns and Consequences of Rural-Urban Migration in India", Independent Publishing Company, Delhi, India.

Yasmeen, A. (1990), "Economic Significance of Urbanisation in Bangladesh", Unpublished Ph.D. Thesis, University Calcutta, India.

Table 1: Distribution of Migrants and Rate of migration According to Age

Age (in years)	Percentage of Migrants at		Migration Rate*
	Age at migration	Current Age	
00-14	12.90	7.40	0.83
15-19	21.60	7.70	4.26
20-24	29.50	16.80	12.88
25-29	17.40	25.30	13.12
30-34	9.50	13.00	6.80
35-39	4.90	13.40	5.33
40 and above	4.10	16.60	1.83
Total	**1176 (100.0)**	**1176 (100.0)**	**3.81**

* Details about the computation of migration rate is given in Appendix Table 1.

Table 2: Distribution of Migrants According to Marital Status

Marital Status	Percentage of Migrant
Unmarried	45.50
Married	54.10
Others	0.40
Total	**1176 (100.0)**

Table 3: Distribution of Migrants and Rate of Migration According to Education

Education	Percentage of Migrants	Migration Rate*
Illiterate	12.70	1.38
Primary	23.00	2.14
Secondary	21.90	5.60
SSC/HSC	30.30	15.12
Graduate/Others	12.20	21.01
Total	**1176 (100.0)**	**3.81**

* Details about the computation of migration rate is given in Appendix Table 1.

Table 4a: Distribution of Migrants and Rate of Migration According to Pre-migration Occupation

Pre-migration Occupation	Percentage of Migrant	Migration Rate*
Land owner	17.00	7.33
Labourer	8.60	4.46
Service/Job	1.50	2.65
Business	4.60	5.91
Student	34.70	5.22
Unemployed	24.40	21.04
Household work + Others	9.20	0.70
Total	**1176(100.0)**	**3.81**

* Details about the computation of migration rate is given in Appendix Table 1.

Table 4b : Distribution of Migrants According to Occupation at the Place of Destination

Occupation at Destination	Percentage of Migrants
Service/Job	26.5
Business	10.3
Labourer	15.6
Student	9.3
Unemployed + Household work	7.1
Overseas worker	31.2
Total	**1176 (100.0)**

Table 2.5 : Percentage Distribution of Migrants According to Nature of Migration and Education*

Education	Nature of Migration					Total
	Permanent employment	Temporary employment	Studies	Dependency	Others	
Illiterate	8.1	61.1	0.0	26.8	4.0	149
	4.0	15.1	0.0	28.6	9.1	
Primary	21.9	58.9	1.1	10.7	7.4	270
	19.5	26.4	4.7	20.7	30.3	
Secondary	19.8	60.3	2.7	11.7	5.4	257
	16.8	25.7	10.9	21.4	21.2	
SSC/HSC	33.4	47.5	5.9	7.6	5.6	356
	39.3	28.0	32.8	19.3	30.3	
Graduate	43.1	20.1	22.9	9.7	4.2	144
	20.5	4.8	51.6	10.0	9.1	
Total	303 (25.8)	603 (51.3)	64 (5.4)	140 (11.9)	66 (5.6)	1176
$\chi^2 = 164.34^{\dagger}$, d.f.=12						

* Figures in upper line of each cell represent the percentages of row total, lower line indicate the percentages of column total, and figures within parentheses indicate the percentages of total.

† Significant at 5 per cent level

Table 6a : Push Factors by Educational Level of the Migrants*

Push Factor	Educational Level					Total
	Illiterate	Primary	Secondary	SSC/HSC	Graduation	
Poverty	14.7	24.6	23.1	29.9	7.7	455
	45.0	41.5	40.9	38.2	24.3	(38.7)
Job searching	5.3	20.7	24.9	36.6	12.6	358
	12.8	27.4	34.6	36.8	31.3	(30.4)
Influence by villager	31.9	36.2	10.6	12.8	8.5	47
	10.1	6.3	1.9	1.7	2.8	(4.0)
Family influence	21.8	26.8	21.4	22.3	7.7	220
	32.2	21.9	18.3	13.8	11.8	(18.7)
Study	-	4.5	9.1	33.3	53.0	66
	-	1.1	2.3	6.2	24.3	(5.6)
Others	-	16.7	16.7	40.0	26.7	30
	-	1.9	1.9	3.4	5.6	(2.6)
Total	149	270	257	356	144	1176
$\chi^2 = 54.69^{\dagger}$, d.f.=8						

* Figures in upper line of each cell represent the percentages of row total, lower line indicate the percentages of column total, and figures within parentheses indicate the percentages of total.

† Significant at 5 per cent level

Table 6b: Push Factors by Pre-migration Occupation of the Migrants*

Push Factor	Pre-migration Occupation							Total
	Agriculture (owner)	Labourer	Job/ Service	Business	Student	Unemp -loyed	HH work	
Poverty	14.9	15.2	1.1	7.0	23.3	38.2	0.2	455
	34.0	68.3	27.8	59.3	26.0	60.6	0.9	
Job searching	22.1	5.3	2.8	3.6	45.8	19.8	0.6	358
	39.5	18.8	55.6	24.1	40.2	24.7	1.9	
Influence by villager	59.6	8.5	2.1	2.1	10.6	17.0	-	47
	14.0	4.0	5..6	1.9	1.2	2.8	-	
Family influence	9.1	3.2	0.5	3.6	23.6	13.2	46.8	220
	10.0	6.9	5.6	14.8	12.7	10.1	95.4	
Study	-	-	-	-	100.0	-	-	66
	-	-	-	-	16.2	-	-	
Others	16.7	6.7	3.3	-	50.0	16.7	6.7	30
	2.5	2.0	5.6	-	3.7	1.7	1.9	
Total	200	101	18	54	408	287	108	1176
$\chi^2 = 111.40^{\dagger}$, d.f.=8								

* Figures in upper line of each cell represent the percentages of row total, lower line indicate the percentages of column total, and figures within parentheses indicate the percentages of total.

† Significant at 5 per cent level

Table 6c : Distribution of Migrants According to Pull Factors

Pull Factors	**Percentage of Migrants**
Better opportunity	48.1
Liking of place	2.1
Transferred	4.1
Relatives/friends there	22.1
Due to job	21.6
Others	2.0
Total	**1176 (100.0)**

Table 7a: Distribution of Migrants According to Destination Places from Different *Mauzas*/Villages

***Mouza*/ Village**	**Destination places**						
	I	**II**	**III**	**IV**	**V**	**VI**	**Total**
1. Lolbari	42	17	19	9	4	47	138 (11.7)
2. Gazipur	14	48	74	11	6	60	213 (18.1)
3. Chandanail	3	4	68	6	1	30	112 (9.5)
4. Bara Doshia	41	42	79	1	2	13	178 (15.1)
5. Muriara	12	4	8	0	0	30	54 (4.6)
6.West Rashulpur	2	2	8	0	1	48	61 (5.2)
7. Pipiakandi	1	5	9	1	0	52	68 (5.8)
8. Dombaria	13	20	45	4	5	6	93 (7.9)
9. Damurpar	3	33	55	2	0	32	125 (10.6)
10.Chandiskara	0	6	12	2	1	113	134 (11.4)
Total	131 (11.1)	181 (15.4)	377 (32.1)	36 (3.10)	20 (1.7)	431 (36.6)	1176 (100.0)

I. Comilla Urban, **II.** Chittagong city and other towns of Chittagong division except Comilla district, **III.** Dhaka city and other towns of Dhaka division, **IV.** Sylhet division, **V.** Rajshahi and Khulna division, **VI.** Foreign Countries.

Table 7b : Distribution of Migrants According to Different *Mauzas*/Villages

***Mauza*/Village**	**Number of Migrants**	**Population**	**Migration Rate**
1. Lolbari	138	1683	8.20
2. Gazipur	213	1493	14.27
3. Chandanail	112	1390	8.06
4. Bara Doshia	178	1739	10.24
5. Muriara	54	1842	2.93
6. West Rashulpur	61	1472	4.14
7. Pipiakandi	68	1686	4.03
8. Dombaria	93	1474	6.31
9. Damurpar	125	1522	8.21
10. Chandiskara	134	1616	8.29
Total	**1176**	**15917**	**7.39**

Table 8: Relative Risk of Migration at Household Level using Logistic Regression Analysis

Variables	N	β	SE (β)	Relative Risk
Education of Household				
Illiterate♣	863	-	-	1.0000
Primary	595	0.7663	0.2457	2.1518†
Secondary	523	0.7838	0.2737	2.1897†
SSC/HSC	460	1.4898	0.3025	4.4360†
Graduate	255	0.9896	0.3666	2.6901†
Occupation of Household				
Agriculture (Owner) ♣	941	-	-	1.0000
Agriculture (Labourer)	672	-0.8580	0.3013	0.4240†
Non-agricultural Labourer	475	2.4161	0.2679	11.2023†
Service	295	1.4838	0.2975	4.4095†
Business	313	1.1774	0.2851	3.2459†
Agricultural Land Owned by HH				
00-05♣	332	-	-	1.0000
06-50	1014	-0.2452	0.2938	0.7826
51-100	511	0.4967	0.3274	1.6432††
101-200	438	0.7293	0.3498	2.0736†
201 and above	401	0.3852	0.3663	1.4698
Adult Male Member of HH				
0-1♣	1415	-	-	1.0000
2-3	1048	0.9771	0 .2226	2.6567†
4 and above	233	2.9590	0.4591	19.2784†
Family Size				
2-4♣	653	-	-	1.0000
5-8	1705	-0.0032	0.2066	0.9968
9 and above	338	0.4746	0.3349	1.6073
Constant		-1.8194	0.3734	-

† Significant at 5 percent level

†† Significant at 1 percent level

♣ Reference Category

Appendix Table 1: Computation of Migration Rate for Some Characteristics*

Characteristics	Population	Number of total migrants	Number of migrants during 1993-1997	Migration Rate (in percentage)
Present Age (in years)				
00-14	6906	87	57	0.83
15-19	1667	90	71	4.26
20-24	1134	197	146	12.88
25-29	1219	297	160	13.12
30-34	897	153	61	6.80
35-39	1032	157	55	5.33
40 and above	3063	195	56	1.83
Education				
Illiterate	6608	149	91	1.38
Primary	5271	270	113	2.14
Secondary	2431	257	136	5.60
SSC/HSC	1217	356	184	15.12
Graduate/Others	390	144	82	21.01
Pre-migration Occupation				
Land owner	1419	200	104	7.33
Labourer	1234	101	55	4.46
Service/Job	302	18	8	2.65
Business	525	54	31	5.91
Student	4101	408	214	5.22
Unemployed	665	287	140	21.04
Household work + Others	7672	108	54	0.70
Total	**15917**	**1176**	**606**	**3.81**

* Migration rate has been computed by considering the migrants who migrated during 1993-1997

Appendix

Education of the Household

The educational status of a household was determined by taking the highest education level obtained by the educated member (male aged 15 years and above) of the household. On the basis of the education the households were classified into following categories.

1. Illiterate
2. Primary
3. Secondary
4. SSC/HSC
5. Graduate and above

Occupation of Households

The occupation of a household was determined by considering the main source of income of a household. The information of the main occupation of the male members along with income, agricultural land own and age of the members were considered to determine the household occupation. On the basis of the above information the household were classified into following five categories.

1. Agriculture (own land)
2. Agriculture (Labour)
3. Non-agricultural Labour
4. Service
5. Business

Date: May 30, 2001

Md. Junab Ali
General Secretary
Bangladesh Association for the advancement of Science
BCSIR, Dr. Kudrat-E-Khuda Road
Dhanmondi, Dhaka-1205
Bangladesh

Subject: Submission of full-length Paper for presentation in Twenty-First Bangladesh Science Conference

Dear Sir,
Please find enclosed herewith the full-length paper entitled "Rural-Urban Migration in Bangladesh: A Micro-Level Study" for presentation in Twenty-First Bangladesh Science Conference. The Abstract of the paper has already been submitted earlier.

Please take necessary actions in this regard.

Thanking You,

Sincerely yours,

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