

# Cost-Benefit Analysis of In-Migration to Ulaanbaatar city

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There is no doubt that migration affects the society at origin, at destination, and migrants themselves. It has also had enormous social, political, and economic significance. Hence the consequences can be observed and measured in economic, social, cultural, political and demographic term. In Mongolia, as in other developing countries, migratory movements have multiplied greatly in volume in recent years, as transport and communications have improved and employment and economy have expanded. Moving to the cities and towns has been an important part of the herder households' livelihood strategies for many years.

In this paper, the consequences of in-migration to Ulaanbaatar are investigated at individual and household levels in terms of demographic, economic and social categories. Here the effects of migration are gauged in two different ways: (i) by asking migrants for their own evaluation, and (ii) by comparing migrants with their counterparts, who have not migrated. What are the costs and benefits of migration or the changes in working and living conditions of migrants? These questions are central points of this paper. The paper presents the analysis for the effects of migration, which evaluated by migrants themselves. Using cost-benefit approach (Bogue 1977) it examines the effects of migration. The cost-benefit approach undertakes to explain migration by collecting information about the particular combination of forces the individual migrant perceives and the interpretation he/she places upon them. According to this approach, there are four cells, which consist of a listing of the actual or potential costs of migration, of the pull factors, of the push factors, and of the potential benefits of not migrating. Out of them, the potential costs of migration and the potential benefits of not migrating are often ignored in studies of migration. The push and pull factors are commonly hypothesized as stimulating migration. If the perceived influence of the pull and push factors is greater than that of the potential costs of migration and the potential benefits of not migrating, there will

be migration. When the perceived importance of the potential costs of migration and the potential benefits of not migrating exceeds that of the pull and push factors, there will be no migration.

For the analysis of this paper, data set (i.e. 885 migrants and 471 non-migrants from 3,000 households in Ulaanbaatar, and 959 potential migrant households from the origin aimags) from A Micro Study of Internal Migration in Mongolia (PTRC, UNFPA and MOSWL 2001) was used. This study was conducted using a multistage sampling method, with equal probability of selection of households. Data is divided into three categories: (i) migrants from other urban areas to Ulaanbaatar (i.e. urban-urban migrants), (ii) migrants from rural areas to Ulaanbaatar (i.e. rural-urban migrants), and (iii) potential migrants.

## Benefits from Migration

On the benefits side, I treat improvement in job opportunities, in style of life, in the variety of private and public commodities available for consumption, in the quality of public services attainable, and in housing standards achieved, as well as a change in the overall life situation. The calculation of benefits for move is based self-assessment of migrants themselves. Migrants were individually asked whether their overall life situation changed after moving to Ulaanbaatar in terms of job prospects, income level, educational and professional skills, children's studies, family relations, and relationship with friends, relatives and neighbours, housing condition, health care, public transportation utility, market (i.e. buying and selling), environment and life satisfaction, and recreation.

If look at the overall improvement in the life situation of the migrants for both sexes, great majority of migrants evaluated that economic conditions (including employment, income, marketing, etc.) and public services (improved housing, better educational opportunities for

children and self, better community service institutions, etc.) have been appreciably improved after moving to Ulaanbaatar.

Of the total migrants (N=885), almost 60 percent have had somewhat benefits from migration in terms of environmental concerns (i.e. more interesting, exciting social life etc.). Only one-third of the total migrants have had satisfactory close relationships with their relatives, friends and neighbours. This figure is not as much of the proportion of migrants who have had progresses in economic conditions and public services. On the one hand, this maybe explained by migrants' daily contacts with family or old friends are completely changed after

migration. Continued contacts with them are possible although less frequent or protracted than previously. On the other hand, of course, it is not so easy to create substitute relationships in new surroundings. But such situation would be generally only temporary. New substitute social relations can be created after a time in a new surrounding. There is not much difference observed by gender differentials and migration streams.

The aforementioned assessment is given only aggregated information on benefits from migration. So below, the self-assessments of migrants on each factor of benefits from moving are examined in detail. As shown in Table 1,

*Table 1. Percentage distribution of migrants, by self-assessment of live situation after move according to migration stream, sex and duration of residence, Ulaanbaatar*

Specific situation/Progress	Migration stream		Duration of residence			
	Migrants from other urban areas	Migrants from rural areas	0-2 years		3-5 years	
			Male	Female	Male	Female
<b>Work</b>						
Better	40.7	42.9	42.4	43.9	42.9	37.6
Same	32.2	35.3	34.9	30.5	36.4	36.6
Worse	13.3	11.2	12.7	12.1	9.7	13.2
NA/DK	13.8	10.6	10.0	13.5	11.0	12.6
<b>Income</b>						
Better	41.7	40.9	44.1	37.1	50.0	37.6
Same	33.1	37.6	37.1	35.1	33.1	37.0
Worse	11.7	10.3	11.3	11.8	7.1	11.7
NA/DK	13.6	11.3	7.5	16.0	9.8	13.7
<b>Educational/Professional skills</b>						
Better	45.3	35.1	31.0	39.0	40.9	48.2
Same	48.2	59.3	65.5	53.8	52.6	45.2
Worse	3.3	2.5	1.3	2.6	5.2	3.0
NA/DK	3.2	3.1	2.2	4.6	1.3	3.6
<b>Public transportation</b>						
Better	77.3	77.0	82.5	79.7	72.1	70.6
Same	17.6	17.6	13.1	15.4	21.4	23.4
Worse	4.6	4.8	4.4	4.6	4.6	5.6
NA/DK	0.5	0.6	0.0	0.3	1.9	0.4
<b>Marketing/Buying/Selling</b>						
Better	81.6	80.8	80.4	82.3	79.9	81.2
Same	11.7	15.3	14.4	14.1	13.0	13.2
Worse	5.1	3.3	5.2	2.3	5.2	4.6
NA/DK	1.6	0.6	0.0	1.3	1.9	1.0
<b>Relations with friends/relatives</b>						
Better	24.4	22.5	17.0	25.9	24.7	25.4
Same	72.1	70.7	76.9	69.5	69.5	69.0
Worse	1.4	2.1	3.5	1.0	1.3	1.5
NA/DK	2.2	4.7	2.6	3.6	4.5	4.1
<b>Environment/Life satisfaction</b>						
Better	57.2	62.8	58.5	59.3	63.0	62.4
Same	32.5	28.0	31.9	34.1	24.0	25.9
Worse	8.7	7.6	8.3	6.2	9.7	9.1
NA/DK	1.6	1.6	1.3	0.4	3.3	2.6
<b>Total</b>						
Number of migrants	100.0	100.0	100.0	100.0	100.0	100.0
	369	516	229	305	154	197

*Note: NA/DK - Not applicable/Do not know*  
*Source: A micro study of internal migration in Mongolia. Own calculations.*

as much as 42 percent of both migrants from other urban areas and rural to Ulaanbaatar responded to having an improvement in their work after migration. In fact, 11-13 percent of them think that their job situation has deteriorated. When the duration of residence (a move within 2 years and a move for 3-5 years) are considered, the improvements of job status among migrants also differ. Female migrants experience the levelling off of their perception towards an improvement in their job situation. The percentage declines from 43.9 to 37.6 percent.

The majority of migrants report that they are better off in terms of their earnings after they move to the Capital city. The longer stay, the more they are satisfied with their income situation. This is especially true for male migrants.

With regard to education and professional skills, the migrants think that their situations have improved, especially for female migrants. As for those who lived in Ulaanbaatar rela-

tively longer (or for 3-5 years), the percentages of positive answers rise slightly. For migrants from other urban areas, an improvement was much better than that for rural migrants.

According to three fourths of migrants, the public transport access has significantly improved. This is due to the extremely big gap of the infrastructure development level between rural and urban areas that bring about a major difference related to public transportation. A majority of migrants (or over 80 percent of them) who live 0-2 years in the city answered that the access to public transport is better as compared to those with 3-5 years of living stated so. The proportion of those who report an improvement of public transportation declines with length of stay.

The majority of migrants to Ulaanbaatar have better market access and opportunity. The length of stay does not substantially affect the answers of migrants. Over 60 percent of migrants to Ulaanbaatar claim that the life satis-

Table 2. Percentage distribution of migrants by primary cause of migration and progress in the lives after moving, Ulaanbaatar

Specific situation/Progress since arrival at the destination	Primary cause of moving to Ulaanbaatar				
	To have employment	To improve living conditions	Study for		To be close to market
			Self	Children	
<b>Work</b>					
Better	61.5	25.8	48.8	40.5	35.8
Same	26.9	45.2	27.6	31.7	49.1
Worse	10.6	16.0	2.4	21.4	9.4
NA/DK	1.0	13.0	21.2	6.4	5.7
<b>Income</b>					
Better	62.6	48.4	25.2	58.7	45.3
Same	26.9	25.8	42.2	26.2	41.5
Worse	8.8	22.6	3.5	14.3	9.4
NA/DK	1.7	3.2	29.1	0.8	3.8
<b>Educational/Professional skills</b>					
Better	35.7	9.7	74.8	23.0	15.1
Same	60.4	77.4	21.6	68.2	83.0
Worse	2.8	3.2	0.8	4.8	1.9
NA/DK	1.1	9.7	2.8	4.0	0.0
<b>Children's studies</b>					
Better	32.4	41.9	10.6	69.0	22.6
Same	20.3	19.4	9.1	19.0	32.1
Worse	2.2	3.2	0.0	3.3	0.0
NA/DK	45.1	35.5	80.3	8.7	45.3
<b>Market/Buying/Selling</b>					
Better	81.3	80.6	82.7	81.0	88.7
Same	15.9	16.1	12.2	11.9	7.5
Worse	2.8	3.3	3.5	5.6	3.8
NA/DK	0.0	0.0	1.6	1.5	0.0
<b>Total</b>					
Total	100.0	100.0	100.0	100.0	100.0
Number of migrants	182	31	254	126	53

Note: NA/DK - Not applicable/Do not know

Source: A micro study of internal migration in Mongolia. Own calculations.

faction and conditions have also improved. Finally one can say that the results of this analysis prove that economy entities, social services, and markets are over concentrated in Ulaanbaatar than in other parts of the country and the migrants' employment, living conditions and access to public services have somewhat improved as they moving to the Capital city.

Table 1 only presents general changes and progress in the lives of migrants after moving to Ulaanbaatar city. In order to assess the benefits from migration, it is needed to analyse the relationships between migrants' incentive to move and achievements of their goals in migration. This analysis may answer the question «Have migrants' expectations been meeting since arrival at the destination?» These items of information were obtained from the migrants. Table 2 summarizes the responses. Figures in the shaded cells of table are shown how migrants met their primary goal in migration. From the results of table one can say that 50 percent or more of all migrants successfully fulfilled their goals in migration. The majority of migrants mentioned marketing and educational (for self or children) benefits.

Compared to migrants who have the reasons for migration that are related to improving living conditions, migrants who have the main reasons for moving associated with employment, study and marketing were in better position in terms of fulfilling their goals in migration. Also, migrants with non-economic reasons have met their expectations much better than migrants who have economic motives for moving to the Capital city. Some migrants who have

no reason for migrating to have employment reported that they have had an improvement in their work after they move to the city of Ulaanbaatar.

### Costs of Migration

On the cost of migration side, I treat moving costs, transition costs, loss of friends and relatives, change in life style, and concern over change in the overall life situation. Two items are treated both as benefit and cost dimensions (i.e. loss of friends and relatives, and change in life style). In the survey questionnaire, there were no direct questions on these items however I tried to estimate the costs of migration based on indirect questions that could be given some idea about the cost.

In order to change his/her residence, a typical migrant incurs a substantial financial cost. Not only must he/she transport himself/herself, but also he/she must have savings or other resources for lodging, meals, and other expenses while he/she searches for employment. If he/she lacks savings, he/she may compensate for this getting help from relatives, other persons, or institutions.

The analysis of the costs of migration is basically examined for the whole migrants who moved to Ulaanbaatar because there is no much difference between migrants from rural and other urban areas. Table 3 and Table 4 attempt to assemble some facts about how migrants met the costs of their migration to Ulaanbaatar.

Table 3. Percentage distributions of migrants whether faced difficulties and requested assistance by whether receiving help according to sex, Ulaanbaatar

	Sex		Total
	Male	Female	
No difficulties	60.6 (232)	63.9 (321)	62.5 (553)
Faced difficulties, but not going for help	21.9 (84)	22.1 (111)	22.0 (195)
Faced difficulties and going for help, but couldn't get any help	7.3 (28)	5.0 (25)	6.0 (53)
Faced difficulties, going for help, and received help	10.2 (39)	9.0 (45)	9.5 (84)
Total	100.0 (383)	100.0 (502)	100.0 (885)

Note: Numbers in the parenthesis are the total number of migrants.  
Source: A micro study of internal migration 2000. Own calculations.

As demonstrated in Table 3, it seems that nearly one-fourth of the migrants claimed to have arrived in Ulaanbaatar with very less amount of savings or money in cash to support themselves.

They compensated for this accepting various

or none of these various kinds of help. Looking at the proportion of migrants who received one or more of these forms of help, almost 40 percent of migrants received some (or only one) help, and about one-fifth received help of more than two kind.

Table 4. Percent of migrants who went for help by type of receiving help according to sex

Type of help*	Sex		Total
	Male	Female	
Faced difficulties, going for help, and received help			
Receiving help in finding work	35.8	12.9	24.1
Receiving help for dwelling	16.4	30.0	23.4
Receiving help with money	16.4	27.1	21.9
Receiving help with clothing and meals	6.0	10.0	8.0
Receiving help in schooling (for self and children)	3.0	4.3	3.6
Receiving help in other form (health care, advice and information etc.)	10.4	20.0	15.3
Faced difficulties and going for help, but couldn't get any help	41.8	35.7	38.7
Number of migrants	67	70	137

Note: \* - Multiple answers

Source: A micro study of internal migration in Mongolia. Own calculations.

kinds of help from relatives, other persons, or institutions. In Table 4, the figures are only estimated for migrants who went for help, then received some assistances or supports from others in terms of employment, dwelling, money, clothing and meals so on. The percentage of male migrants who received help in finding job is almost 3 times higher compared to female counterparts. Female migrants are in better position than male migrants in receiving assistance with money, dwelling, and clothing and meals.

Roughly, more than one-third of migrants have tried to get assistance from someone or institutions; unfortunately, they could not receive any help. This may mean that migrants who received no help require a longer time to find employment or to settle down in the destination place than those who received some kinds of help. Each migrant could receive some, all,

By sources of various types of help given to migrants, the major proportion of all help given to migrants was provided by relatives; friends contributed a modest amount. If considering sex differentials, female migrants tend to refer to their relatives while the male migrants consult with their friends.

From the above, it can be concluded that, while a substantial share of migrants to Ulaanbaatar had very limited resources with which to pay the costs, a majority compensated for this getting help - primarily from family or other relatives.

In considering the costs of migration, it is useful to know how long it took the migrants to find jobs, the quality of the employment obtained, and the salaries earned. Table 5 illustrates information concerning financial payoff of migration to Ulaanbaatar.

Table 5. Percent of migrants by financial payoff of migration to Ulaanbaatar according to sex

Financial payoff*	Sex		Total
	Male	Female	
Employed			
Percentage finding employment within one week	15.7	18.7	17.4
Percentage finding employment within four weeks	19.3	23.9	21.9
Percentage finding employment within six months	56.1	55.2	55.6
Percentage finding employment within a year	63.2	64.1	63.7
Unemployed	33.9	32.5	33.1
Number of migrants	383	502	885

Note: \* - As calculations were made on the basis of double counting of answers the total share exceeds 100.

Source: A micro study of internal migration in Mongolia. Own calculations.

As seen in table, migration paid off slowly and somewhat good for a minority of migrants. Nearly one-fifth of the migrants in Ulaanbaatar found employment within one week and started to earn salaries. Also, one-fifth of the migrants were employed within four weeks of arriving in Ulaanbaatar. In general, data on after migration employment by sex shows no more difference between men and women.

### Consequences at households

Comparing migrants with non-migrants affords a second perspective on individual outcomes. Specifically, here I examine whether people who have moved enjoy their living conditions compared with those who have not moved (i.e. potential migrants). Also I investigate the differences in household living conditions between migrants and non-migrants in the destination area. Such comparison tries to describe how migrant households discriminated in access to urban amenities corresponding to non-migrant counterparts.

In some nations, especially among developing countries, housing conditions in popular urban migration destinations are often worse than in the rural origins. Most of the poor migrants are crowded into shantytowns on the edges of the urban area, with poor, temporary shelter and no public services like water, sewage, electricity, and streets. This represents a negative differential consequence of migration. Before interpreting the findings of the study, let me briefly describe the state of housing in the Capital city Ulaanbaatar. The city can essentially be

divided into two areas, a built up area of walk up apartments and official enterprises (i.e. core city), and a large temporary city (i.e. ger area), including areas where people live in gers, surrounding the formal built up area. Incomes, and especially living conditions, of those living in ger areas tend to be significantly lower than those living in the core city. For instance, there is no piped water supply or central heat distribution in ger areas.

According to the 2000 census, 49 percent of all households lived in conventional housing and 51 percent lived in gers. Very striking differences were recorded between the urban and rural areas. In the urban areas almost 72 percent of the households lived in conventional housing and 28 percent in gers. The position was reversed in the rural areas where gers predominated. Reflecting the traditional way of life, more than 78 percent of rural households lived in gers (NSO 2001).

Indeed, there is the fact that the consequences of migration are strongly felt in ger areas of Ulaanbaatar. Most of the migrants who moved in Ulaanbaatar have settled in ger areas of the city. In Table 6 housing conditions are presented for current migrants and non-migrants in Ulaanbaatar and the potential migrants who are in the origin areas at the time of the survey.

Almost one-half of the current migrants live in a conventional house as opposed to around 90 percent of non-migrants. For potential migrants, as few as 50 percent of potential migrants or less live in a conventional house.

Selected characteristics	Ulaanbaatar		Potential migrant
	Migrant	Non-migrant	
Type of dwelling			
Conventional house*	54.6	87.7	46.3
Ger	45.4	12.3	53.7
Type of living quarters**			
House	54.0	42.3	58.1
Apartment	44.2	56.3	39.4
Public dormitory	1.6	1.2	1.6
Non-living quarter***	0.2	0.2	0.9
Total	100.0	100.0	100.0
Number	885	471	959

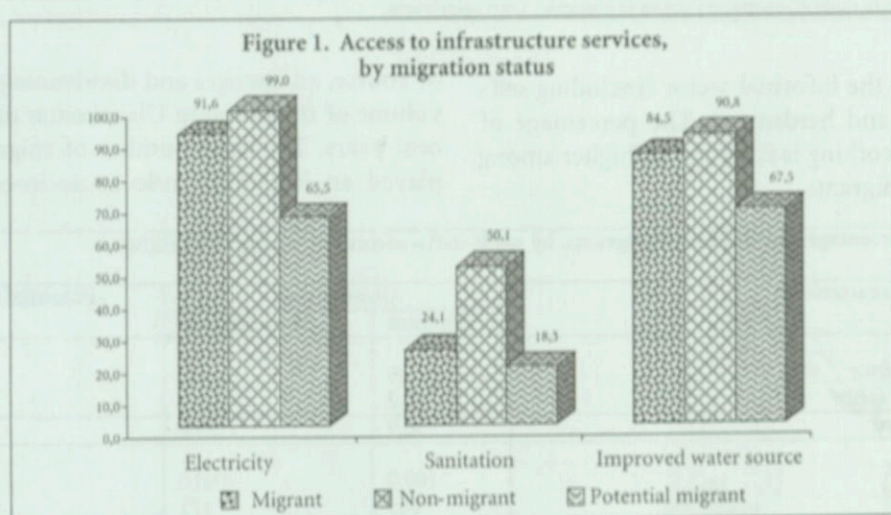
Source: A micro study of internal migration in Mongolia. Own calculations.

Note: \* - including house, apartments and public dormitories  
 \*\* - not including ger  
 \*\*\* - places not intended for living

Of those current migrants living in a conventional house, more than half live in stand-alone houses that are located in ger areas, over 40 percent live in apartments, around 2 percent live in public dormitories, and the remaining only 0.2 percent live in dwellings not intended for living, such as space under stairwells adapted for living, rail carriages, storage areas and of-  
 fice rooms.

The percentage of non-migrants living in apartments is higher than for those of current and potential migrants. If comparing housing conditions of the current migrants to potential migrants, there is slightly improvement observed

areas generally lack most of these services. In relation to migrants and non-migrants, access to services is not as good as for the potential migrants. In truth, such situation is an existent picture of rural residents. Rural residents have less access to public infrastructure services than their urban counterparts. As the results of the study, roughly, one-third of the potential migrants use water from unprotected wells, rivers, rain or snow, as compared with less than a tenth of the non-migrants (i.e. urban residents). To summarize, one can say that the migrants that moved to the Capital city have had much improvement in access to infrastructure services.



Source: A micro study of internal migration in Mongolia. Own calculations.

in dwelling and living quarter types. Figure 1 displays access to infrastructure services by migratory status. This set of figures illustrates that although, being settled in Ulaanbaatar where the infrastructure is relatively well developed, only 8.4 percent of the migrants households have no access to the centralized electricity network.

In terms of sanitation system, the proportion of migrants is twice as much as the non-migrants, which have inadequate access to that. This may be explained by the vast disparity in the provision of services between formal urban and ger areas in Ulaanbaatar. Formal urban areas may have access to centrally provided heating and hot water, water supply and sanitation, solid waste collection, and social services such as schools and hospitals. On the other hand, ger

The main income sources of the study populations are wages and salaries but for potential migrants' household production and services (i.e. agricultural production). The percentage of current and potential migrants whose income is generated from household business is higher than that of non-migrants. This main income source differential is surely related to their current employment status and where they work. Some migrants come with exceptional qualifications or the right connections and can count on securing a satisfactory income in the urban setting. Many others are not so fortunate. Table 7 shows employment status of the study populations by migratory status.

Of total non-migrants, 40 percent are engaged in the formal sector (including governmental,

state owned and private organizations) whereas more than one third of current migrants are

## Conclusion

In evaluating internal migration, there were,

*Table 7 Percentage distribution of migrants, by main income sources of household according to migration Status*

Main income source	Ulaanbaatar		Potential migrant
	Migrant	Non-migrant	
Salary	49.7	58.5	37.7
Pensions/allowances	13.5	18.3	17.7
Household business income/commercial income	35.5	21.8	44.5
Other	1.3	1.4	0.1
Average expenditure of household per month (Tug)	115,097	111,121	66,375
	100.0	100.0	100.0
Total Number	885	471	959

*Source: A micro study of internal migration in Mongolia. Own calculations.*

engaged in the informal sector (including self-employed and herdsman). The percentage of those not working is found to be higher among potential migrants.

of course, advantages and disadvantages in the volume of migration in Ulaanbaatar during recent years. The large number of migrants has played an important role in socio-economic

*Table 8 Percentage distribution of migrants, by work status according to migration status*

Selected characteristics	Ulaanbaatar		Potential migrant
	Migrant	Non-migrant	
Employed			
Formal sector	27.9	40.0	31.0
Informal sector	35.2	25.0	32.8
Unemployed	36.9	35.0	46.2
Total	100.0	100.0	100.0
Number	885	471	959

*Source: A micro study of internal migration in Mongolia. Own calculations.*

The difference is however, only marginal. While being in Ulaanbaatar, migrants have promoted more than potential migrants in getting jobs. Nevertheless, they only fit for the jobs in the informal sectors due to their poor qualifications for any occupation in the urban labour market. Their skill level is lower than urban residents and their work style is different. Working in the informal sector does not require specific qualifications and professions and cannot provide secure social protection and insurance services. In contrast, the formal sector has relatively secure working conditions, social welfare and protection services for the employed. In addition to this, it has also activities with fairly permanent functioning and requires more qualified labourers. This sector-differentiated employment is definitely influenced to whose main income source would be salaries/wages or household businesses or any other alternatives.

development of Ulaanbaatar city. However, the accelerating increase of urban population by migration has also produced both an obvious «impacting effect» and a potential «long-term effect». The problems caused by the migrational increase of the population of Ulaanbaatar in recent years are of some concern.

The analysis indicates that the living conditions of migrants in all respects have improved somewhat as a result of migration. Migrants had very limited resources with which to pay the costs, a majority compensated for this getting help from kinship relations (i.e. family or other relatives).

The migration has brought forth housing problems. A large percentage of those who migrate to Ulaanbaatar settle in ger areas. Ger areas growing informally on three sides of Ulaanbaatar, have no public services like piped water



supply, central heat distribution, sewage, electricity, and streets. Incomes, and especially living conditions, of those living in ger areas tend to be significantly lower than those living in the core city.

Migrants move from rural areas to Ulaanbaatar regardless of its high unemployment rate. The findings show that the percentage of those not working (i.e. unemployed) was higher among migrants. Usually migrants fit for the jobs in the informal sectors due to their poor qualifications for any occupation in the urban labour market. Thus, these unskilled migrants enter

the not modern sector of the city's labour market, but mostly in the informal sector. However, their incomes are significantly higher than those that are yielded from livestock production and other uncertain rural activities, are not those of the modern urban wage sector, but derive from insecure and though unskilled labour in the marginal and informal sectors of the city's economy. It should be strictly noted that the movement of unskilled migrants who represent the surplus of the agricultural sector might be explained as a survival mechanism rather than an investment strategy.

