



## ORIGINAL RESEARCH PAPER

Economics

## MIGRATION AND DEVELOPMENT: A CASE STUDY OF ALANG SHIP BREAKING YARD

KEY WORDS:

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## ABSTRACT

Migration is as old as human history. The massive movement of population in modern times has wide social, economic, political, demographic and economic implications. The unskilled labour migrate from their native to destination do not expect a very high economic gain as in the case of skilled workers or highly educated persons. The basic need of unskilled workers is primarily for a continuous work throughout the year. The migration of this type is considered as migration from underdeveloped region to developed region or backward region to forward region. Alang ship breaking is known as world's largest ship breaking yard, which employs 30,000 labours directly, and 1.5 to 1.6 lakh labours indirectly in downstream and upstream industries. In Alang ship breaking yard majority of the labourers are migrated from different states of the country viz, U.P., Bihar, Orissa, Jharkhand and Gujarat. The present paper details with the migration of labour from their place of origin to Alang ship breaking yard and their impact on the nearby region and industry. The aim of this paper is to focus on the process of migration of labour to Alang ship breaking yard and also on development aspect due to migration.

**I. Introduction**

People are moving from one place to another since ancient period, which is a continuous international phenomenon resulted due to complex mechanism involving social, economic, psychological, political, institutional and other determinants. Migration is a form of geographical or spatial mobility which involves a change of usual residence of a person between clearly defines geographical units. The concept 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 individual and urban growth. Broadly speaking migration is a relocation of residence of various duration and various natures.

In recent time due to urbanisation and industrialization, the of social transformation takes place and it is fast in developing countries. The accelerating rate of urbanisation is high among the least developed countries of Asia. It is found for the period of 20 years i.e. 1970 to 1990, the average annual growth rate of urban population was 3.4 percent for India, 6.5 for Bangladesh and 4.2 percent for Pakistan and Sri Lanka. However the urban growth rate is due to rural-urban migration and it contributes three-fifths to two-third. The incidence of rural-urban migration is higher in developing countries, a distinct selectivity with respect to age, sex, caste, marital status, education, occupation etc, occurs and the propensity of migration different among these socio-economic groups (Lee, 1996; Sekhar, 1993; Yadava, 1988).

Migration differential plays an important role in identifying the nature and strength of the socio-economic and demographic impact of the population. Various scholars have tries to establish some uniformity in migration patterns for all countries at all times. In the process of migration age is the factor, which is more or less similar in developing as well as developed countries. Many studies found that adult males are more inclined to migrate than other people of the community (Rogaia, 1997; Singh and Yadava, 1981). Several studies reported that determinant of migration vary from country to country and even with the same country. The variation in migration depends on the socio-economic, demographic and cultural factors. Unemployment, low income, unequal distribution of land, demand for civic amenities are some of the prominent determinants of rural out-migration (Bilsborrow et al., 1987; Kadioglu, 1994; Nabi, 1992; Sekhar, 1993; Yadava, 1988).

The process of migration is influence by the combination of push-pull factors. People migrate to cities and towns because they are attracted by bright light of city. Studies on migration found that there are positive associated between levels of infrastructure development of a region and the magnitude of out-migration (CUS, 1990). The poor rural population considered migration as a livelihood coping strategy. On the other hand some people migrate to urban areas from villages for higher education,

employment and higher income. These both categories are driven preponderantly by economic reasons. Information and communication also influence the decisions of migration (CUS, 1990).

Migration studies in developing countries have generally dealt with the economic aspects of migration. However, majority of studies dealt with the differentials and determinants of migration focusing mainly on causes and consequences of migration (Afsar, 1995; Hugo, 1991; Selvaraj and Rao, 1993; Yadava, 1988). Apart from economic impact migration of individual produces various impacts such as reduce of agriculture labour in rural areas, physical separation of husband and wife etc. Therefore it is important to understand the causes of migration, extent of migration.

In Alang ship-breaking yard due to labour migration from underdeveloped region to Alang has created positive impact on the development of the nearby regions. The Ship breaking industry though is a recycling industry which has a great positive impact on the steel industry of India and also on the economic development of the region.

In the process of migration it is important to note that the characteristics of migrants are not sufficient to explain the motive behind migration because the decision of a person to migrate is largely depend on family background. The individual characteristics can only give the type of people involve in migration. Therefore, it is important to study the characteristics of migrant's households and individual, which will give idea about the causes of migration. The aim of this paper is to focus on the socio-economic conditions of migrants and also to identify the factors influencing out-migration. This paper also focuses on the impact of migration and development of the nearby region and industries.

**II. Research Methodology**

In Alang ship breaking yard majority of labours are migrated from different backward and underdeveloped regions and few local labours are involved in ship breaking activity. Therefore, for the study researcher has collected the data personally from labours at their place of work as well as at living place. A stratified random sampling was applied to select the respondents and covered 300 sample migrants which constitute about 1 percent of the working population.

It is difficult to identify the differentiating factors among migrants. For example, the socio-economic conditions of migrants at the place of origin and destination. However, some characteristics of migrant such as education, occupation background, agriculture land owned, family size etc have been taken into consideration to find out the causes and consequences of migration to Alang ship breaking yard. The paper also detail with the impact of migration and development of the nearby region and industries.

**III. Results and Findings**

The socio-economic characteristics of the migrants, it generally assumed that the migrants have certain important socio-economic characteristics, which are different from those of the rest of the population in their place of origin. These socio-economic characteristics such as age, education, income, linkages to place of destination and their family occupation play a significant part in their movement from one place to another place for livelihood.

**a) Age**

Age differential reveals the impact of migration on socio-economic and demographic structure at both the place of destination and origin. Huger (1981) found that the loss of young adults through migration from villages leads to undermining of agricultural production by reducing agricultural labour. Singh's study on Uttar Pradesh found that out-migration of young male's leads to decline in fertility (Singh et al., 1981).

Table 1 shows age wise distribution of the respondents originating from different states. It indicates that 75.3 percent of the population falls under the age group of 21-35 years. In Alang ship breaking yard all respondents are belong to the working age group and majority of them are young. A study conducted by Yadav found migration differential by age has been almost generalized and the percent is higher for the people aged between 15 and 40 (Yadava, 1988). Average age of the migrants from five states i.e. from Uttar Pradesh, Bihar, Orissa, Jharkhand and Gujarat are 28.52, 31.03, 29.77, 27.13 and 30.70 years respectively. Average age of the respondents from Orissa is lower of 27.13 years as compare to the other states. The group or total average age of the respondents from all states is 28.81 years.

**Table 1. Age Structure of Respondents and their Nativity**

Age Groups	U.P	Bihar	Jharkhand	Orissa	Gujarat	Total
15-20	15.93(18)	3.23 (1)	2.78 (2)	9.46 (7)	--	9.34 (28)
21-25	24.78(28)	22.58 (7)	27.78 (20)	32.43 (24)	30.00 (3)	27.33 (82)
26-30	23.89(27)	25.81 (8)	33.33 (24)	24.32 (18)	--	25.67(77)
31-35	22.13(25)	29.02 (9)	20.84 (15)	21.62 (16)	20.00 (2)	22.33 (67)
36-40	7.96(9)	9.68 (3)	8.33 (6)	6.75(5)	20.00 (2)	8.33 (25)
41-45	2.65(3)	6.45 (2)	6.94 (5)	2.70 (2)	20.00 (2)	4.67 (14)
46+	2.65(3)	3.23 (1)	--	4.05 (3)	--	2.33 (7)
Total	100.00(113)	100.00(31)	100.00(72)	100.00(74)	100.00(10)	100.00(300)
Average Age	28.52	31.03	29.77	27.13	30.70	28.81

Source: Field Survey.  
Note: Figures in bracket are number of the respondents.

**b) Education**

The migration decision of an individual is influence by education. 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, 1981; Singh, 1985). Table 2 shows that respondents having primary level education are less than the (23.3 percent). Only one respondent has technical education and 3 respondents are Graduates. Table also shows that majority of respondents from the five states are illiterates and only 10 percent of respondents have territory of higher education. The percentage of illiterate is higher from Orissa state, which is 47.3 percent. Studies on developing countries pointed out that most of the migrants are educated and the process of migration has education selectivity (Singh and Yadava, 1981). But the present study shows that migrants are less educated. However, migration process is not education selectivity because the percentage of illiterate is high i.e.

more than 30 percent. It is also found that educated people are less interested in taking agriculture as their occupation.

**Table 2 Distributions of Respondents by their Level of Education**

Education Level	U.P	Bihar	Jharkhand	Orissa	Gujarat	Total
Illiterate	22.12 (25)	32.23 (10)	38.89 (28)	47.30 (35)	30.00 (3)	33.67 (101)
Primary	16.81 (19)	25.81 (8)	19.44 (14)	32.43 (24)	50.00 (5)	23.33 (70)
Secondary	46.01 (52)	35.48 (11)	30.56 (22)	18.92 (14)	20.00 (2)	33.67 (101)
High-Secondary	14.16 (16)	6.45 (2)	6.94 (5)	1.35 (1)	--	8.00 (24)
Graduation	--	--	4.17 (3)	--	--	1.00 (3)
Technical	0.88 (1)	--	--	--	--	0.33 (1)
Total	100.00 (113)	100.00 (31)	100.00 (72)	100.00 (74)	100.00 (10)	100.00 (300)

Source: Field Survey.  
Note: Figures in bracket are number of respondents.

**c) Pre-Occupation & Income**

In the study of migration, the pre-migration occupation and income also helps to understand the causes behind migration. In this section migrant's profiles are discussed considering their previous occupation and previous income at any place or their native place. The distribution of respondents according to their previous occupation and previous income at the place of origin is shown in the given table 3a and 3b.

The table 3a shows the respondent's previous occupations can be diverse. It is found that 35 percent of migrants were involved manual work in agriculture and 21.3 percent of migrants were unemployed before migrating. Further only 14 percent respondents were engaged in agriculture as marginal farmer and 29.7 percent respondents were non-agricultural labour. Therefore, it is clear that most of the respondents were engaged in unskilled occupations which constitute 60 percent of respondents. In Alang ship-breaking yard previous occupation of majority of the respondents before migrate to Alang from the different states is related to non-agriculture sector, which created opportunity to employment in industrial sector due to their experience in industrial work and considered as one of the push factors in the process of migration. It is found that majority of respondents were engaged in non-agricultural occupation and therefore the propensity to migrate was higher.

Table 3b indicates that average previous income of 236 respondents from all states is Rs. 1065.38 which is very low. Out of 300 respondents, 64 have reported that current occupation at Alang to be their first job, hence for them previous income does not exist. The average income of respondents from Bihar state is higher (Rs 1269.04) whereas average income of the respondents from Orissa is lower (Rs 944.05). The vast majority of the respondents are in the income group of Rs 500-1000 which constitute 71.6 percent. Therefore, it is found from the analysis that respondent's previous income is lower, which is one of the important push factors in the process of migration. It is found that for most of the families, the respondents in this study are the sole bread winners, hence per-capita availability of resources in much lower.

**Table 3a Distribution of Respondents by their Previous Occupation**

Previous Occupation	U.P.	Bihar	Jharkhand	Orissa	Gujarat	Total
Farmer	11.50 (13)	22.58 (7)	19.44 (14)	10.81 (8)	--	14.00 (42)
Manual Labour	35.40 (40)	29.03 (9)	50.00 (36)	27.03 (20)	--	35.00 (105)

Manual Labour in Non-Agriculture	31.00 (35)	32.26 (10)	15.38 (11)	37.84 (28)	50.00 (5)	29.67 (89)
Unemployed	22.20 (25)	16.13 (5)	15.38 (11)	24.32 (18)	50.00 (5)	21.33 (64)
Total	100.00 (113)	100.00 (31)	100.00 (72)	100.00 (74)	100.00 (10)	100.00 (300)

Source: Field Survey.  
 Note: Figures in bracket are number of the respondents

**Table 3b Average Previous Income of the Respondents**

Previous Income	U.P.	Bihar	Jharkhand	Orissa	Gujarat	Total
500-1000	946.84 (57)	923.33 (13)	930.00 (46)	904.17 (48)	962.50 (5)	933.37 (169)
1001-1500	1273.10 (21)	1275.00 (7)	1281.25 (14)	1183.33 (8)	1150.00 (2)	1232.54 (52)
1501-2500	1904.16 (8)	2011.11 (6)	1800.00 (1)	--	--	1905.09 (15)
Total	1115.56 (86)	1269.04 (26)	1024.88 (61)	944.05 (56)	1016.07 (7)	1065.38 (236)

Source: Field Survey.

In developing countries, particularly in Asia, low agricultural income and agricultural unemployment and under-employment are the major factors pushing migrants towards areas with greater job opportunities. The pressure of population, resulting in a high man-land ratio has been widely hypothesized as one of the important causes of poverty and rural out-migration. With the given mode of production only a small part of the labour force can be absorbed by agriculture. Unless the non-crop husbandry sectors, cottage and small-scale industries in the rural areas can take in the surplus labourers and these people move to the urban centers to be gainfully employed (Oberai and Singh, 1983).

The causes of migration are usually explained by using two broad categories viz, push and pull factors. For example, people of a certain area maybe pushed off by poverty and unemployment to move towards a town and/or industrial base for employment. While a better employment and higher facilities may pull people to move to urban areas to get 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, natural disaster and political instability. When these non-economic factors arise, economic disadvantages may appear as a strong influential or push factor in migration decision of an individual.

The causes of migration as reported by the respondents have been collected by the researcher and the results are presented below. The findings show that it is the economic opportunity that played a dominant role in migration decision. Over 58 percent of the respondent reported that they migrated due to unemployment and low wages at their place of origin. Another 35.7 percent did so to find better income (See Table 4). Further, about 5.3 percent migrants were pushed off due to the influence of the family members because of low property at their native place. From the analysis of data the main reason for migration it is found to be the backwardness and unemployment situation in the respondent's native place. It pushed them to migrate to Alang ship breaking yard and to earn their livelihood as well as to fulfill their family responsibilities.

**Table 4 Percentage distribution of Respondents by Reason for Migration**

Reason for Migration	U.P.	Bihar	Jharkhand	Orissa	Gujarat	Total
Low Property	0.88 (1)	9.68 (3)	1.39 (1)	13.52 (10)	10.00 (1)	5.33 (16)
Low Wages	39.83 (45)	32.26 (10)	44.44 (32)	21.62 (16)	40.00 (4)	35.67 (107)

Social Problem	--	--	2.78 (2)	1.35 (1)	--	1.00 (3)
Unemployment & Low Wage	59.29 (67)	58.06 (18)	51.39 (37)	63.51 (47)	50.00 (5)	58.00 (74)
Total	100.00 (113)	100.00 (31)	100.00 (72)	100.00 (74)	100.00 (10)	100.00 (300)

Source: Field Survey.

It is documented that migration decision of an individual is influenced not only by the push factors but also by the pull factors (Yadava, 1990). But in case of migrants from different states to Alang ship breaking yard it is found that the most of the migrants are migrated due to push factors but some pull factors are also responsible in the process of migration.

**IV. Spread Effect of Ship Breaking Industry**

The intention in this section is to present the spread effect of ship breaking industry. The ship breaking industry though is a recycling industry which has a great positive impact on the steel industry of India and also on the economic development of the region. The reprocessed steel forms 10-15 percent of the total steel production in India. It generates large scale employment, direct and indirect and also generates spread effects in many ways.

The major inputs to the ship breaking industry are the ships that are purchased from various countries across the world. The purchases are done through various agents of countries operating internationally. The purchasing of the ships, the finances come from various financial institutions. For the ship breaking activity to take place, GMB acts as a facilitator by providing sites and infrastructure as required. Various types of machinery and equipments are required for the ship breaking activity. In addition, oxygen and LPG gases are a requirement along with labour for the activity to generate product (90 percent) and by products (10 percent) in terms of value, which lead to lot of spread effects in terms of industrial growth and other opportunities for entrepreneurs.

The ship breaking industry produces 90 percent of products i.e. steel scrap and 10 percent of by products such as electrical equipments, wood items, utensil, asbestos, glass etc. Therefore, the main output of the ship breaking industry is steel scrap, which amounts to 90 percent in terms of value.

The ship breaking industry of Alang plays an important role in the country in terms of revenue generation which is approximately Rs. 17 billion per annum (International Metalworkers Federation, 2006: 41). In modern times the steel products are used by various industries as well as household. Due to this the importance of ship breaking industry is increasing over a period. Apart from its importance to other industries of the economy, the ship breaking industry is important in meeting steel requirement in the country, accounting 10-15 percent of the steel production of India. Therefore, ship breaking industry is the first stage of growth of various industries in the region. A similar phenomenon has been noticed in Bhavnagar. There are 100 re-rolling mills, 20 oxygen and 12 LPG plants are established in the region or outside the region (International Federation of Human Rights, 2000). These industries generate vast employment opportunity for the workers and also generate demand for other related materials.

The ship breaking industry in Alang has clear-cut spread effects and has impact on the development of the region. Alang ship breaking yard can be considered as the starting point of the chain of industrial link in the region. Industry produces largely steel scrap and also useable items which are used in households. Ship breaking yard produce raw steel that was earlier being imported from other countries. After the cutting of ship into small plates and pieces the scrap is dispatched to re-rolling mills for further processing.

The ship breaking industry of Alang is linked to various small and medium industrial units through purchase of raw materials and

sale of output. Ship breakers purchase LPG and oxygen cylinders from various plants which are used in the process of cutting. In the process of cutting a ship on an average 250 to 300 oxygen cylinders and 35 to 40 LPG cylinders. These are considered as basic ingredients for ship breaking industry. After cutting the ship into plates and pieces they send them to re-rolling mills which is directly link with ship breaking industry. There is indirect link with ship breaking industry is construction industries because they purchase steel products such as rods, bars etc from the re-rolling mills for construction work. In the region about 100 re-rolling mills are operating which generate employment of 80-120 workers per re-rolling mill.

The products of ship breaking industry are used by various small, medium and large industries to convert them into final products depending upon the nature of the products and their uses. Ship breakers sell their products to various units within the region and also outside the region. For example, electrical equipments, wood items, motors, generators, utensils are sold to unorganised sector as these products are effectively repaired and converted into final products by these industries. On the other hand, steel scraps are mainly supplied to re-rolling mills, which is the part of organised sector. Therefore, raw material generated by ship breaking industry is sold to both organised and unorganised sector industries to convert into final products is considered of scraps and other items such as wood, generators, utensils etc.

#### Backward Linkage

The purchase by an enterprise consists of different materials and these are purchased from different sources located in the region or outside the region. Inputs are to be purchased from different sources. It is observed that many a time purchase of input by the firm is not directly from the producers but from middlemen. Depending upon the nature of input used in ship breaking industry these inputs are classified into categories. These categories are (i) import of old ship, (ii) oxygen plants (iii) LPG plants (iv) machine tools etc. The industry also depends on various service providers locally or internationally.

These categories of inputs are purchased by ship breakers either within the Alang region or from outside the region. These inputs are important in the process of dismantling of ship. The most important input for ship breaking industry is the availability of non-useable ships in international market for scrapping. Ship breakers purchase non-useable ships as raw material to convert them into various outputs, which is used by number of industries as raw material. On the other hand, equipments, machine tools, LPG and oxygen cylinders are another important input for ship breaking industry. These inputs are required in the process of cutting the ships into pieces. Most of the inputs are not available in Alang region hence linkages to other regions. Therefore, ship breakers purchase these inputs from outside the region. This inputs linkage shows how this industry is strongly dependent on other industries for various inputs. Overall it is found that ship breaking industry of Alang exhibits strong backward linkage in terms of requirement of inputs. The important activity of the industry, which is recycling naturally, exhibit high backward links as the industry is raw material intensive.

#### Forward Linkage

Forward linkage in the ship breaking industry can be understood by analyzing the main user of the output of ship breaking industry. However, important output of the ship breaking industry is steel scrap, which is sold to small and medium re-rolling mills. Alang ship breaking yard is linked with various industries for selling its products. The sale of ship breaking industry to the different industries shows that the ship breakers do not face any problem or difficulty in selling their output. Further ship breakers have direct contact with the enterprise that purchases the output of the ship breaking industry. The main output of the ship breaking industry is directly sold to re-rolling mills, which is used as raw material for further processing. These re-rolling mills in the region or outside generate employment opportunities for skilled and unskilled labours, which show strong forward linkage. Further, re-rolling mills sell their products such as sheets, rods and bar to various

industries. The processing industries, which largely consist of fabrication and equipment manufacturing in addition to the construction industry, are the ultimate users of the output of the ship breaking industry. The construction industry is growing at the rate of 10 percent per annum and the Indian construction industry accounts 5 percent of the GDP as against figure of 6-9 percent for most countries. The processed steel is also used in numerous other industries requiring steel and steel equipments.

Depending upon the destination of the output of the ship breaking industry to various industrial units, the sales of ship breaking industry are classified into region and industry. The entire output linkages of the industry are classified into two categories. These are (1) direct linkage i.e. re-rolling mills and (2) indirect linkages to a number of industries such as fabrication, equipment manufacturing and construction and a number of other industries.

From the above discussion on linkages of the ship breaking industry it is found that industry exhibit both direct and indirect linkages to different industries. Overall, it can be concluded that the ship breaking industry has strong backward as well as strong forward linkages with various industries within the region or outside the region. The ship breaking industry generates a direct employment of 30,000-40,000 and an estimated indirect employment upto 1.6 lakhs.

#### V. Conclusion

The process of migration is as old as human history. It is observed that differences are prevailing in the socio-economic development of the different states and district within. A large proportion of labours employed at Alang ship breaking yard are migrants from different states. They are largely from backward states of Uttar Pradesh, Bihar, Orissa and Jharkhand. Only a small proportion of workers are from Gujarat state i.e. 5-10 percent.

The causes of migration are highly important in the process of migration. Among the causes of migration reported in the present study, it is observed that both 'push' and 'pull' factors have their influence on migration. Little more than 35 percent mentioned 'pull' factors are the main causes of their migration and 65 percent mentioned that 'push' factors as the most important. So it is found that 'push' factors have been more important than 'pull' factors. As far as 'push' factors are concerned, it is observed that the leading cause of migration is unemployment in the rural areas which is the principal causes of migration. The present study also finds out that 58 percent migrants moved out of the rural areas because of non-availability of work at the place of origin. Another important push factor is low fixed property (5.3 percent) of the migrant at their native place. It is observed that the important 'pull' factors, which cause migration of rural labourers, is relatively good wages at Alang as compared to their native place.

It is concluded from the analysis that majority of the respondents have migrated from rural areas due to low income, unemployment and link at Alang. These labours are not economically sound at their native place and migrated to earn their livelihood at Alang ship breaking yard. The study also helps planners and policy makers to implement rural development programs to reduce rural out-migration.

From the above discussion on spread effect of the ship breaking industry it is found that industry exhibit both direct and indirect linkages to different industries. Overall, it can be concluded that the ship breaking industry has strong backward as well as strong forward linkages with various industries within the region or outside the region. The ship breaking industry generates a direct employment of 30,000-40,000 and an estimated indirect employment upto 1.6 lakhs.

#### References

1. Billsborrow R.E., T.M. McDevitt, S. Kassoudji & R. Fuller, 1987, The Impact of Origin Community Characteristics on Rural-urban Out-migration in a Developing Country. *Demography*, 24(2), 191-210.
2. Chaudhury, R.H, 1978, Determinants and Consequences of Rural Out-Migration: Evidence from Some Villages in Bangladesh. *Oriental Geographer*, 22 (1 & 2), 1-20.
3. CUS, 1990, The Urban Poor in Dhaka. Centre for Urban Studies, Dhaka, Bangladesh.

4. Hugo, G.J, 1992, Migration and Rural-Urban Linkages in the ESCAP Region", Paper presented at pre-conference seminar of the Fourth Population Conference, Republic of Korea.
5. International Federation of Human Rights, 2000, Where do the Floating Dustbin ends up, Labour Rights in Ship-breaking Yards in South Asia: The Cases of Chittagong (Bangladesh) and Alang (India). International Federation of Human Rights, Netherlands.
6. Kadioglu, A, 1994, The Impact of Migration on Gender Roles: Findings from Field Research in Turkey. *International Migration*, 32(4), 533-561.
7. Lee, E.S, 1966, A Theory of Migration. *Demography*, 3, 47-57.
8. Nabi, A.K.M.N, 1992, "Dynamics of Internal Migration in Bangladesh", *Canadian Studies in Population*, vol. 19(1), 81-98.
9. Oberai, A.S and H.K.Manmohan.Singh, 1983, Causes and Consequence of Internal Migration: A Study of Indian Punjab. New Delhi: Oxford University Press.
10. Rao, A. S. (1989) "Linkages and Growth of Chemical Industry: A Study of Small and Medium Scale Units in Baroda", Unpublished Ph.D Thesis, Department of Economics, M.S. University of Baroda, Gujarat.
12. Rogaia, M.A, 1997, Sudanese Migration to the New World: Socio-economic Characteristics. *International Migration*, 35(4), 513-536.
13. Sekhar, T.V, 1993, Migration Selectivity from Rural Areas: Evidence from Kerala. *Demography India*, 22(2), 191-202.
14. Selvaraj, K.G. & P.S.S. Rao, 1993, Household Migration-Urbanisation and Consequences. *Demography India*, 22(2), 203-210.
15. Singh, S.N. & K.N.S. Yadava, 1981, On Some Characteristics of Rural Out-migration in Eastern Uttar Pradesh. *Society and Culture*, 12 (1), 33-46.
16. Singh. S. R. J, 1985, A Study of Rural Out-migration and its Effects on Fertility. Unpublished PhD thesis in Statistics, Banaras Hindu University, India.
17. Yadava, K.N.S, 1988, Determinants, Patterns and Consequences of Rural-Urban Migration in India. Delhi: Independent Publishing Company.