

## Inter-Sectoral Mobility: The Case of Migrant Labourers in the Secondary Sector of Marine Fisheries of Karnataka

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### ABSTRACT

*The marine fisheries sector represents a transition from a subsistence economy to a highly industrialized one. The employment potential of the secondary and tertiary sectors in marine fisheries has increased tremendously in the present scenario of globalization and liberalization. The present paper documents the case of migrant labourers from Tamilnadu who have been forced to migrate from an agrarian economy in to fisheries based economy in coastal Karnataka in order to support their livelihood, due to frequent droughts, crop failure and reduced wages faced by them as agricultural labourers in their native state. The study conducted in Mangalore fisheries harbour in the Dakshina Kannada district of Karnataka documents the socio-economic profile of the migrants, the peak, medium and lean seasons of fishing, the differential wage patterns among the men and women labourers, and the factors which discriminated the high and low levels of aspiration among the migrants. The Discriminant function analysis revealed that, variables namely age, education, family type and annual income had shown positive influence in differentiating the high from low levels of aspiration among migrant labourers. The results of the Wilcoxon-Mann-Whitney test showed that significant differences were found in between high and low levels of aspiration with respect to variables such as education status of the respondents, occupational experience and the level of awareness of developmental programmes.*

**Key words:** Migrant labourers, Socio-personal, Socio-economic and Socio-psychological factors, Push and pull factors, Aspiration

Migration is an integral part of the survival strategies of the poor. The right to mobility for employment is an important human right; especially where local economies offer limited livelihood alternatives. Intervention strategies should, therefore, be directed at reducing the vulnerability of migrants, not at reducing migration itself. The decision to move is based on certain felt deprivations, stress, constraints, aspirations, motivations at the place of origin. (Hussain et.al, 2004). Deprivations are felt by individuals or collectively when the immediate needs are not fulfilled by the existing conditions within a community (Haq, 1974). It is assumed that when opportunities like good jobs, educational and physical facilities and civic amenities are short in supply in the community, certain members of the community conceive the idea of moving out of it and going to different place where they can find adequate facilities and opportunities to raise their standard of living. Migration in to the fishery sector from the other sectors could also indicate a very high absorption capacity, low skill requirement and a reasonably satisfactory work environment in terms of wages vis-a-vis other mass employment sectors like agriculture and construction. (Non agriculture). (Centre for Social Research, 2005). Migratory behaviour is of two types, outward migration and inward migration. Outward migration is defined as the movement of labourers outside their revenue villages to seek employment opportunities available elsewhere and inward migration is the movement of labourers in to the native villages from any other place, in search of any feasible work according to their capacity/potential. However the migration of labourers from the agricultural sector to the fisheries sector is a grave economic problem affecting both the agrarian and fisheries economy. Deshingkar and Farrington (2008) observed that, in India, the growth in non-agricultural wages was higher than that of agricultural wages. The

studies conducted by Tietze et al (2000) reveal that, contrary to the popular belief that fisher folk are the poorest group of the rural population in coastal areas, in five out of the six countries studied namely, India, Tanzania, Senegal, Bangladesh, Malaysia and the Philippines in spite of declining catches, the average annual household income of fisher folk households is significantly higher than that of households in neighboring agricultural villages. The savings rate and the amounts saved were generally higher in fishing villages than in neighboring agricultural villages. In most of the countries studied, finally, households in agricultural villages were as indebted as or more indebted than households in fishing villages. Overtime, the most frequently heard explanation for migration has been the so called "push-pull theory", which depicts that some people move because they are pushed out of their former location, whereas others move because they have been pulled or attracted to some place elsewhere. This concept was first given by Revenstoein in 1989 (cited by Rafique, 2003). According to him the living conditions are "push factors" and attractions of better living conditions are "pull factors". The migration from farming to fisheries sector causes labour displacement in the agrarian sector and on the other, it leads to labour gain in the fisheries sector. Improvements in technologies in the fisheries sector has led to unbridled capital investment in this sector and has attracted more and more people from the adjacent coastal transects who necessarily do not belong to the fishing community. (Sathiadhas et al., 2009).

Against this background, a study was initiated to assess the push and pull factors which were responsible for their migration, to assess the socio-economic characteristics of migrant labourers, their levels of aspiration and factors which discriminate between high and low levels of aspiration among migrant labourers.

## METHODOLOGY

Of the three coastal districts of Karnataka, namely Dakshina Kannada, Udupi and Uttara Kannada, the coastal district of Dakshina Kannada having maximum mechanization of its craft and gear was selected. From this district, a sample of 32 migrant labourers from the Mangalore Fisheries harbour were randomly selected for the study. A well structured interview schedule was constructed for data collection from the sample respondents. A total of thirteen socio-economic characteristics ie independent variables and one dependent variable ie level of aspiration were selected based on the review of literature on earlier studies. The independent variables were studied based on standardized scoring procedures used by earlier authors as mentioned below. Age (Lekshmi, 2004), Educational status (Sudhakar, 2002), Occupation (Balasubramaniam, 1988), family type (Balasubramaniam, 1988), family size (Lekshmi, 2004), Social participation (Balasubramaniam 2004), Occupational experience (Karthikeyan ,1997), annual income (Lekshmi, 2004), Communication status (1997), economic motivation (Sudhakar, 2002) and awareness level (Lekshmi, 2005). The dependent variable used for the study was the level of aspiration. The level of aspiration was measured using the ladder technique as adopted by (Gupta, 1991). Aspirations of fisher folk are defined as the fishermen's pre-dispositional pattern of motivation which are determined by the existence, the combination and the precedence of specific needs (need for social prestige and need for knowledge) and expectations of material catchments and expectation of meeting specific goals). The importance of psychological factors in economic development is more widely recognized in recent times. (Webber, 1958). The level of aspiration is related to desire or an ambition to achieve something better in life. (Tesfaye, et al, 2010). The level of aspiration was defined as the level of future performance of a familiar task, which an individual after knowing the level of past performance in his task is able to reach.

Each migrant laborer was asked to express his hope, desires, worries and fear in his own terms and assumptions. A figure of a ladder he feels, and where he stands personally.

- a) Where in that ladder do you feel you stand personally at present?  
Step No ----- 10
- b) Where on that ladder, would you say you stood 5 years ago?  
----- 9  
----- 8  
----- 7
- c) And where do you think you will be on the ladder 5 years from now  
----- 6  
----- 5  
----- 4  
----- 3  
----- 2  
----- 1  
----- 0

is shown to him, and he is asked to indicate his position in the ladder with respect to the time period indicated. Corresponding to the position indicated in the ladder by the respondent, the scores for the present, past and future scores are given and summed up. The independent variables were classified in to low, medium and high using mean and standard deviation. The other statistical techniques used in the study were Discriminant function analysis to assess the relative importance of the variables in discriminating high and low groups of aspiration among migrants and also the Wilcoxon-Mann-Whitney test of significance for High and Low levels of aspiration among migrant labourers. The data collected was tabulated and the results analysed using SPSS 16 software.

## RESULTS AND DISCUSSION

The results presented in Figure 1 revealed that, the major push factors in migration were lack of job (100 per cent) followed by 95 percent who attributed it to the incidence of drought, followed by 80 per cent who said that less income was the reason for migration followed by 75 per cent who said that lack of own land was the major push factor in migration. The findings of the study revealed that, the labourers had migrated from Villupuram district of Tamilnadu. Villupuram is one of the poorest districts of Tamilnadu ravaged by vast spells of drought and causing losses to the agrarian economy of the district. The 86 per cent of the population depend on agriculture for a living. Owing to lack of perennial irrigation sources and deficit rainfall, drought conditions have become a regular phenomenon in these districts forcing a vast majority of its rural population to migrate to neighbouring states of Karnataka and Andhra Pradesh in search of employment opportunities. The pull factors in migration as indicated by Figure 2, were chances for sustained income (98%), increased availability of water for day to day needs (97%), proportionate increase in wages (95%) followed by 75 per cent who opined that provision for adequate rest after the work hours, was available in their new destination.

The findings revealed that with respect to the age of the migrants more than half the total number of respondents (54.28 per cent) were young ie less than 35 years of age, followed by 34.29 per cent who were middle aged ie between 36 and 45 years of age. Only 11.43 per cent belonged to the old age group ie above 45 years of age. In the process of growing old, individual undergo social, psychological and physical changes. These changes results in the reduction of involvement with others and decline in physical energy (Phillips, Sternthal, 1977; Fabyan (1999). Loading /Unloading activities among fishermen and women demand a lot of physical energy and dexterity which can be accomplished only by the younger section of the workforce. Sriputinibondh et al (2005) observed that activities in the fisheries sector were more risky and

required expenditure of physical labour.

With respect to the educational status, it was observed that majority (82.85 percent) were illiterate, followed by primary level of education ie 11.43 per cent and only 5.71 per cent had undergone high school level of education. George and Domi (2002) argue that the literacy rates within fishing communities are low compared with other occupational groups. They suggest that low rates of literacy are the result of multiple factors (such as community values, economic vulnerability, migration, and male and female child labour in fishing related activities and domestic responsibilities). Studies conducted by Ali (2006) on the migrant telugu fishermen in Orissa state revealed that only 11 per cent of the migrants were literate. The migrant telugu fishermen face difficulties in educating their children due to absence of separate educational institutions having facilities of teaching in their own languages. Wherever they are established, they are not functioning properly. Aung, (2008) opined that the migrants in many countries were a marginalized sector of people because they are impacted by inequalities in illiteracy, gender etc.

It was also seen that all the respondents (cent per cent) were having loading/unloading as their primary occupation. The peak period of employment for these migrant labourers was during the months of September to November with an average of 25 days of employment in a month during this period. The average wage rate of male labourers during the peak season was Rs. 300/ day for 14 hours of work from 5AM to 7 PM, and for female labourers it was Rs 100-200/day for 13 hours of work from 5 AM to 6 PM. However during the peak season in incidences of heavy fish landings, the men are found to work from 6 am to even up to 1 am in the night whereas women work from 5 am to 8 pm. During days of heavy landing of fish, men laborers earn up to Rs. 800-1000/day and women up to Rs 300-500/day. It could be observed that male labourers undertook heavy work such as unloading the fish from the boats, breaking ice and putting them in fish baskets as well as loading them in to fish trucks. The women labourers carried the unloaded fish from the harbour, and loaded ice in to the trawlers, and also carried the unloaded fish to fish trucks for further transportation. Contrary to this finding, Gopal et al (2006) in their study on migrant women employed in the processing plants at Veraval, Gujarat State observed that men workers were involved in loading and unloading, packing, transportation etc. which are 'heavy jobs' that women cannot undertake. The medium season of employment was during the months of December, January, February, March, April and May and the average wage rate during this season was Rs. 100-150 for male labourers and for females it was Rs. 50-60. The average work hours during this season for both male and female labourers were 13 hours from 5 AM to 6 PM. The lean period of employment was during the

months of June, July and August when the migrant labourers returned home to Villupuram in Tamilnadu. During the lean period (June, July and middle of August) these labourers were employed as agricultural labourers with an average wage rate of Rs. 100 /day for men and Rs 40/day for women. The women undertook works such as weeding, fertiliser application and irrigating crops manually whereas men were involved in all operations from land preparation till harvest. The women worked from 7.30 AM to 12 noon and men worked in the fields from 7.30 AM to 2.30 PM.

Majority of the migrant labourers (71.43 per cent) had joint families and 28.57 per cent had nuclear families. Most of the labourers had migrated to Dakshina Kannada district 2-3 decades back, with their families. Another interesting observation was, family labour was also utilised, to accentuate their income revealed that with respect to their family size, 97.14 per cent had up to 5 members in their family and only 2.86 per cent had more than 5 members in their families. The social participation ie membership in cooperative societies, self-help groups and local bodies was nil. Similar findings were reported by Tyagi et.al (2007), whose findings revealed that 85 percent of migrant fishermen in Lakhimpur Khiri district of Uttar Pradesh had a low level of social participation. All the migrant families possessed ration cards and availed of benefits of welfare programmes of the government in their native town. As far as the occupational experience of the respondents were considered, most of them had an average of 10 years of experience in their jobs with 34.28 per cent of respondents in low and high level of occupational experience and 31.44 per cent in medium level of occupational experience.

With respect to the level of annual income, the findings of the study revealed that, 50 per cent of the respondents belonged to the annual level of income, followed by an equal percentage (25 per cent) in the low and high level of annual income. Further it could be observed that 62.5 percent had a medium level of communication status followed by 37.5 per cent in the low level of communication status. With respect to economic motivation, it was observed that 75 per cent had a medium level of economic motivation followed by 12.5 per cent in the low and high categories. An analysis of the awareness level of respondents about the welfare schemes of the State Fisheries Department showed that, 37.5 per cent belonged to the low and medium level of awareness followed by 25 per cent in the high level of awareness. With respect to the aspirational level of fishermen the findings revealed that, 62.5 per cent belonged to the medium level of aspiration followed by 25 per cent in the high level followed by 12.5 per cent in the low level of aspiration.

A cursory look revealed that the major constraints faced by the migrants in order of their magnitude were lack of permanent identity cards at their place of work(100 per cent), followed by physical

drudgery at work as opined by 98 percent followed by 96 per cent who said that lack of a sense of belongingness. Lack of housing facilities and incidence of malaria as opined by 95 per cent of the respondents constituted the other constraints experienced by the migrant labourers.

Discriminant Function analysis in relation to socio-personal, socio-economic and socio-psychological characteristics between low and high levels of aspiration among migrant labourers

Aspirations of fisher folk are defined as the fishermen's pre-dispositional pattern of motivation which are determined by the existence, the combination and the precedence of specific needs (need for social prestige and need for knowledge) and expectations of material catchments and expectation of meeting specific goals). The importance of psychological factors in economic development is more widely recognized in recent times. (Webber, 1958). The level of aspiration is related to desire or an ambition to achieve something better in life. (Tesfaye, et al, 2010). A high level of aspiration is a key factor in motivating fisher folk in promoting their entrepreneurship skills and in adoption of the latest technological innovations for earning higher income.

The migrant labourers in this study are examples of inter-sectoral mobility, denoting movement from non fishery avenues to fishery sector.

cursory look at the above Table reveals that the canonical correlation which measures the association between the discriminant scores and the level of aspiration was 0.998 which is a high value which indicates that all of the variability in the two groups ie high and low levels of aspiration are accounted by the discriminant scores of the variables. Out of the 12 variables considered for the study, it could be observed that 5 variables were significantly discriminating between the high and low levels of aspiration. It is further observed that, out of the 12 variables studied, 4 variables namely, age, education, family type and annual income had shown positive influence in differentiating the high from low levels of aspiration of migrant labourers. The 4 variables in descending order of their importance were age (16.89), education (16.88), family type (8.06), and annual income (4.29). It suggested that the respondents who scored high in these variables (individuals having more age, more education, joint family type and higher annual income) might have differentiated more significantly between high and low levels of aspiration. On the other hand, the variable material possession (-5.04) had shown significant negative influence in differentiating the high from low level of aspiration.

The Table further revealed the relative importance of the variables in discriminating the high from low level of aspiration. It could be seen that the variables having substantial importance in classifying the high from low level of aspiration group were age and education with a relative importance of 41 per cent respectively followed by family type (19 per cent) and annual income (10 per cent).

The discriminant function fitted takes the form

$D = L_1X_1 + L_2X_2 + \dots + L_kX_k$  wherein D is the value of the discriminant function of an individual migrant labourer, xi's are the predictor variables and Li's represent the discriminant co-efficients.

$D = 16.89 X_1 + 16.88 X_2 + 8.06 X_3 + 4.29 X_4 - 5.04 X_5 + 0.28 X_6$  where D is the value of the discriminant function of an individual migrant labourer and xi's are the predictor variables and Li's represent the discriminant co-efficients.

The study shows that extension agents should focus their efforts on considering variables such as age, educational levels of migrants, the number of members in their families and their present income levels in designing developmental programmes, in harnessing their entrepreneur skills and motivating them in adoption of technological innovations.

In order to find out the variables with respect to which the low and high levels of aspiration groups differ significantly, the Wilcoxon-Mann –Whitney test was carried out and the results are presented in Table 2.

**Table 1**  
**Discriminant Function Analysis in relation to the relative importance of variables in discriminating between the groups**

Sl. No	Variables	Discriminant Function Co-efficient L(i)	Structure matrix Co-efficient	Relative importance (%)
1.	Age	16.89	0.019	41.00
2.	Education	16.88	0.040	41.00
3.	Family type	8.06	0.019	19.00
4.	Annual income	4.29	-0.012	10.00
5.	Material possession	-5.04	-0.031	-12.00
6.	Social participation	0.28	0.022	1.00
Total				<b>100.00</b>

High group = 20 Low group = 12  
 Canonical correlation = 0.998  
 Wilk's Lambda = 0.004\*\*  
 Overall percentage of correct classification = 62.50 %.

A discriminant function analysis was conducted among a sample of 32 migrant fishermen in order to identify those socio-personal/socio-psychological and socio-economic variables which were significantly discrimination between low and high groups of aspiration among migrant labourers. The results are presented in Table 1. A total of 14 independent variables were used for the study. Variables such as occupational experience, communication status, economic motivation, level of awareness and level of participation has been excluded from analysis. A

**Table 2**  
**Wilcoxon Mann -Whitney test of significance for High and Low levels of aspiration among migrant labourers**

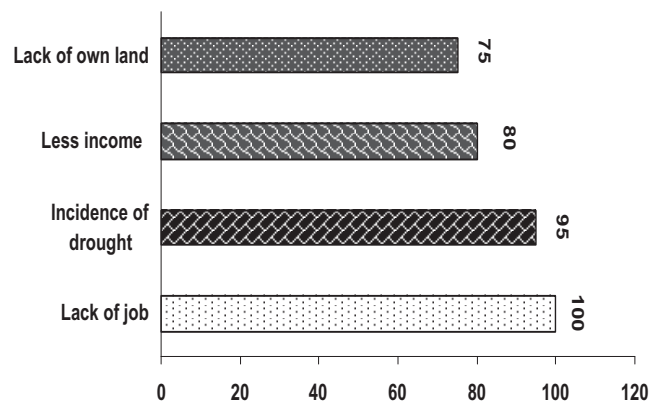
Sl.No	Variables	Groups	N	Mean	Sum of ranks	Mann Whitney U	Wilcoxon W	Z
1.	Age	High level	20	15.30	306.00	96.00	306.00	-1.63
		Low level	12	18.50	222.00			
2.	Education	High level	20	13.30	266.00	56.00	266.00	-2.58**
		Low level	12	21.83	262.00			
3.	Occupation	High level	20	16.50	330.00	120.00	198.00	0.00
		Low level	12	16.50	198.00			
4.	Family type	High level	20	15.30	306.00	96.00	306	-1.63
		Low level	12	18.50	222.00			
5.	Annual income	High level	20	17.70	354.00	96.00	174.00	-0.941
		Low level	12	14.50	174.00			
6.	Material possession	High level	20	15.30	306.00	96.00	306.00	-1.232
		Low level	12	18.50	222.00			
7.	Social participation	High level	20	14.50	290.00	80.00	290.00	-1.683
		Low level	12	19.83	238.00			
8.	Occupational experience	High level	20	16.50	330.00	120.00	198.00	0.00**
		Low level	12	16.50	198.00			
9.	Communication status	High level	20	12.90	258.00	48.00	258.00	-3.34
		Low level	12	22.50	270.00			
10.	Economic motivation	High level	20	16.10	322.00	112.00	322.00	-0.323
		Low level	12	17.17	206.00			
11.	Level of awareness	High level	20	11.30	226.00	16.00	226.00	-4.179**
		Low level	12	25.17	302.00			

The results of the Wilcoxon-Mann-Whitney test showed that significant differences were found between high and low levels of aspiration with respect to variables such as education status of the respondents, occupational experience and the level of awareness of developmental programmes. In other words, the educational status of the migrant labourers, their years of occupational experience and level of awareness about developmental programmes for fishermen were different for low level of aspiration group and for high level of aspiration group.

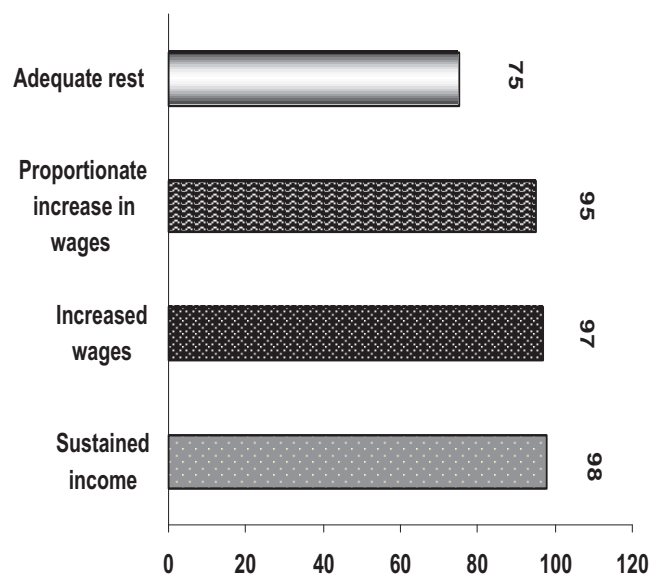
**CONCLUSION**

Though the migrant labourers contribute significantly to the marine fisheries development, their problems are numerous often not effectively addressed by the government and policy makers. They do not have ration cards or identity cards at the place of work, suffer from lack of hygienic working conditions, long working hours, lack of proper shelter and housing facilities, lack of insurance facilities in instances of physical injuries endured during work, inadequate wage structure and are not eligible for benefits of welfare programmes of the State Fisheries Department.

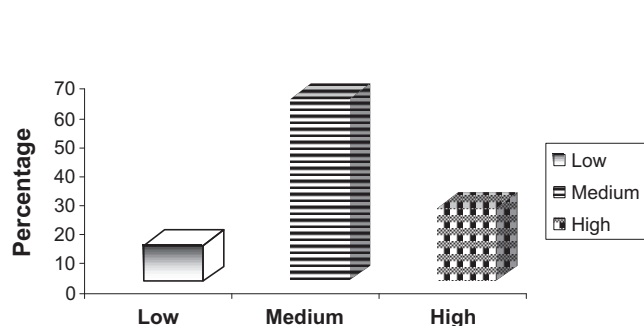
Social safety nets such as targeted poverty alleviation programmes for migrants, issue of temporary identity cards at place of work, provision of insurance policies and ensuring remunerative wage policy for migrant labourers will give an integrated, multidimensional and holistic approach to enhance their livelihoods and mitigate the negative effects of distress migration.



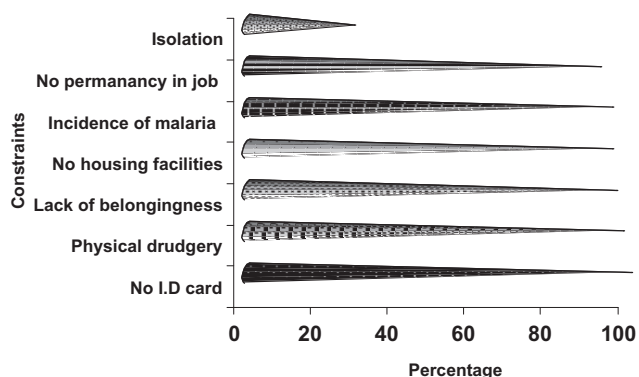
**Fig 1: Push factors in migration**



**Fig 2: Pull factors in migration**



**Fig 3. Distribution of respondents according to their Level of Aspiration**



**Fig 4. Distribution of respondents based on their constraints**

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