
DETERMINANTS OF FISHERMEN MIGRATION: STUDY ON A TRADITIONAL MARINE FISHING VILLAGE IN UTTARA KANNADA DISTRICT

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Abstract

This paper presents a brief report on the factors determining fishermen migration in a traditional fishing village, Karwar in Uttara Kannada district. Fishermen from this village migrate out due to various economic and non-economic reasons. But the most important are the economic considerations. Random sampling technique was used to collect the needed primary information from the migrant households. Various reports and research works were also consulted to know the nature and pattern of fishermen migration. The study found that the migrants are better off than they were before. But this sort of migration may result in undesirable effects on the existing marine fishery resources and marine fishery economy of the native district. Reports say that Uttara Kannada district is endowed with vast marine fishery potentials. Outmigration of active fishermen from the district might cause underutilization and wastage of the scarce marine fishery potentials of Uttara Kannada coast.

Key words: Fishermen, migration, Uttara Kannada, coast, Karwar.

1. Introduction

The impact of seasonal changes leave many fishermen become unemployed and suffering with low income and little surplus for survival during non-season. This necessitates the movement of fishermen who follow fishing as their primary source of livelihood. The main aim of this study is to identify and analyze the factors that influence the out migration of fishermen from Karwar, a traditional fishing village in Uttara Kannada district.

According to Tawari (2002) a migrant fishermen is one who leaves his natural community and moves from one habitation to another in fulfillment of his occupation. There was no fishermen migration in the traditional system. For them, fishing was considered as a village based activity undertaken with a feeling of togetherness for the sustenance of the community as a whole.

3. Methodology

Migration in geographical sense, takes two forms: external migration and internal migration. The internal migration is frequent and regular that is, the geographical mobility of active fishermen to different locations within the country for fishing operation. The study takes into account of internal migration and strictly limited to the migrant fishermen who engaged as boat operators, crew members or hired labourers in the mechanized fishery sector.

The study used mainly the primary data using random sampling technique. The data have been collected from the sample households with the help of a well prepared questionnaire. The research work of scholars and reports of government and non-governmental organizations are used as secondary source of information.

Many studies and reports highlighted that Karwar coastal village has been one of the places of origin for the migrant fishermen in various parts of our country. Therefore, Karwar fishing village has been selected as testing ground. The data regarding the migrant fishermen of Karwar have been obtained from the Fishermen Welfare Society located in Karwar. Discussions were held with the officials of Fisheries Department, the priest of the local leader and senior members of the fishermen community to know about the nature of migration.

The migrants visit their native village only on special family functions and religious festivals. Since, the fishermen of Karwar are Hindu and Muslims, the migrants return to their origin to celebrate the Depavali, Chaturthi and Ramzan. By taking that opportunity the household survey was conducted during Easter Week i.e., the third week of April 2014. The study used random sampling technique. Altogether 100 migrant households have been randomly interviewed.

4. Objectives

The main objective is to identify and analyze the prime factors determining the fishermen migration in Karwar fishing village in Uttara Kannada district. The following are the subsidiary objectives.

- To analyze the nature of fishermen migration in Karwar fishing village.
- To establish the relationship between migration and the factors determining migration.

5. Hypotheses

- There exists high degree of positive correlation between migration and size of household as well as household expenditure.
- The economic factors such as number of working days and income are crucial in determining the fishermen migration.

Statistical Tools

The statistical tools such as simple correlation and multiple regression studies have been used in the analysis part. The correlation and regression coefficients have been statistically tested at some desired level of significance using t'-test.

Simple correlation model: $Y = f(x_1, \dots, x_6)$

Multiple regression model: $Y = a + b_{1x1} + b_{2x2} + b_{3x3} + b_{4x4} + b_{5x5} + b_{6x6}$

Where,

Y = Number of migrants

a = Constant variables

b_1 = size of family

b_2 = Family expenditure

b_3 = Working days at the place of origin

b_4 = Income at the place of origin

b_5 = Working days at the place of destination

b_6 = Income at the place of destination

6. Significance of the Study

Studies on fishermen migration in Uttara Kannada district was conducted by several authors. Joel and Ebanesar (1993), Pazhani K (1998), Rao (1998), Sathiadhas R and et.al (2009), KIrishnan V (2010) and George David (2013) have analyzed the nature and types of fishermen migration, the causes and its consequent effects upon the socio-economic background of fishermen households. Very few studies highlighted the problems faced by the migrant fishermen in their place of destination. The present study is an attempt to analyze the general factors responsible for the migration of Karwar fishermen.

7. Factors Determining Fishermen Migration

Tadaro has explained the causes of rural urban migration. The expected rise in income and anticipated desire of enjoying a better standard of living that prompts rural people migrate to urban areas and cities. Education, medical and employment prospects are higher in urban areas than rural areas. The costs and expected benefits from migration are also determining the rural urban migration. The costs include transport cost, daily expenses in the destination, the income foregone in the place of origin etc. Similarly the monetary and non-monetary benefits constitute the total benefits from the place of destination. Revenstein stated that the inherent desire of men to better themselves in material aspects is the most important factor determining the decision to

migrate. The present study identified several factors determining fishermen migration and these are classified into push and pull factors.

1. Push Factors

Push factors are the factors that move out the migrants from their place of origin. These are some compulsions and local problems that disturb the regular and routine activities of fishermen in their native villages. A Brief discussion on the factors that move away the fishermen from their native village into a new village for occupational purpose in given as follows.

1.1. Economic Factors

The poor economic conditions and absence of income generating activities in the native village compelled the fishermen to migrate out and choose a destination where income earning opportunities are brighter. There are some fishermen from Karwar who migrate out regularly for taking advantage of getting regular employment and income to support their family by working in the native boats operating in Kerala and Karnataka coasts.

Accumulated borrowings are also regarded as a factor responsible for fishermen migration. Few migrants reported that they become victim of their ancestral debt. Their inherited debt forced them to get advance money from fish merchants to work as a crew member on contract basis in the boats from other maritime states in India.

Large family size and high dependency ratio is another reason for fishermen migration. Their household expenditure usually exceeds their income during non-seasons. Moreover, the fisher folk spend large sums of money on ceremonies and festivals. This will be an additional financial burden on the fishermen households.

1.2. Occupational Hazards

The treacherousness of Uttara Kannada Sea and its vast stretches of rocky sea bed make it difficult to operate trawl boats. Tidal waves occur along the Uttara Kannada coast during July and August. Meanwhile the cyclonic depressions and disturbances reduce the number of fishing trips and results in poor landings between October and December. However, the impact of these will be felt more by the boat operators rather than the crew members or hired labourers.

Shallow continental shelf and rocky sea bed are the natural barriers to the fishing operations. These often cause severe damage to the crafts and gears which has direct bearing on the cost of production of fishing units.

1.3. Fishery Infrastructure

Unlike the traditional crafts, the mechanised boats need berthing and landing facilities. Karwar has a natural harbour but due to lack of berthing the boats are anchored at the distant sea.

Loading inputs on board and unloading the catches from the boat are done with the help of traditional crafts. Fuelling is yet another problem faced by mechanised fishing units. In the absence of direct fuelling in Karwar harbour, the boat owners depending on the traditional craft operators to board on fuel cans.

The following table illustrates the migrant's responses towards the push factors in determining migration.

Table No. 1
Migrant's responses towards push factors

Sl. No.	Push factors	Number of responses
1	Economic Factors	
	Unemployment and low income	99
	Borrowings and inherited debt	28
	Large family size and family expenditure	69
	Spending on ceremonies and festivals	23
2	Occupational Hazards	
	Shallow continental shelf and rocky sea bed	67
	Tidal waves and cyclonic disturbances	67
3	Fishery Infrastructure	
	Fishing harbour	29
	Direct fuelling	29

Source: Survey data, 2014-15

It is found that employment and income constitute the major economic factor among all the factors that compels the fishermen to choose a new location. Size of family and household expenditure ranks second among the economic factors.

The occupational hazards have been a major factor of migration as reported by traditional fishermen as well as mechanized boat operators. Nowadays, many traditional fishermen of Karwar leaving their crafts and engaged as crew members or hired labourers in the mechanized sector.

Fishing harbour and direct fuelling are considered as the basic infrastructure to mechanised fishing units. Altogether 29 responses have been registered against fishery infrastructure. Lack of fishing harbour is one of the main reasons why the Karwar mechanized boats migrate out to Goa and Kerala state.

2. Pull Factors

Pull factors are factors which draw or attract the people of other locations to a new locations. Experience of early migrants, aim to achieve the goal, to become successful in occupation

and fishery infrastructure are the major pull factors which bring in the people from other locations. A brief discussion on the pull factors determining the fishermen migration is given as follows.

2.1 Economic Factors

People will be influenced by the experience of their elders and others from migration. It is found that the fishermen are induced by income and wealth earned by their relatives, friends and others who were the early migrants. Individual's aim to accumulate wealth, riches and to achieve higher social status are also influencing the fishermen migrate out to a new destination. Also it is rightly stated that lack of ambition among the people is one of the causes attributed to the backwardness of most of the developing nations. Limited aspirations are deemed to be the biggest obstacle to progress.

2.2 Fishery Infrastructure

The mechanized boats of Uttara Kannada West Coast are migrated out mainly due to lack of well equipped fishing harbour and proximity of two bigger fishing harbours in Honnavar on the east coast and Ankola on the west coast. Reports indicated that the mechanized boats of Karwar are found fishing in Gujarat and Maharashtra coasts. Moreover, direct fuelling is an essential requirement of mechanized fishing. A well equipped fishing harbour provides such facilities and the fishing boats need not migrate if other things remaining same. It is evident that the Belekeri fishing harbour has made the boats of Uttara Kannada east coast to settle down in their respective villages.

The table given below illustrates the migrant's responses towards the pull factors in choosing a new location to continue in their occupation.

Table No. 2
Migrant's responses towards pull factors

Sl. No.	Pull factors	Number of responses
1	Economic Factors	
	Aim to earn a better income	96
	Induced by early migrants	68
	To succeed in occupation	53
2	Fishery Infrastructure	
	Fishing harbour	29
	Direct fuelling	29

Source: Survey data, 2014-15

The table shows that most of the responses (96) are registered in favour of the expectation to earn a better income rather than the income earned at the origin. Only 29 responses are registered in favour of fishery infrastructure. It indicates that fishing harbour and direct fuelling are

the most important factor to the boat owners to choose the new destination, but economic factors are the powerful determinants of crew members and hired labourers.

Functional Analysis

The result of the gross correlation analysis is summarized in the following table.

Table No. 3
Results of correlation Analysis

Sl. No.	Functional variables $Y = f(x)$	Correlation Co-efficient	't' values
1.	Y_{x1}	0.591	5.128481
2.	Y_{x2}	0.452	3.547014
3.	Y_{x3}	0.080	0.561801
4.	Y_{x4}	0.648	5.955567
5.	Y_{x5}	0.199	1.421429
6.	Y_{x6}	0.982	36.3933

Source: Calculated values

There is high degree of positive correlation between migration and income at the destination. Meanwhile, there is significant positive correlation between income at origin and migration. The 't' test confirmed that the income at the place of destination is the most important factor determining the fishermen migration. The result of multiple regression analysis is summarized in the following table.

Table No. 4
Results of Multiple Regression Analysis

Sl. No.	Determinants	Regression Co-efficient	't' values
1.	a (constant)	0.631	1.421
2.	b_1	0.001	0.055
3.	b_2	0.062	0.709
4.	b_3	-0.001	-0.574
5.	b_4	0.133	1.480
6.	b_5	-0.004	-2.886
7.	b_6	0.621	28.225

Source: Calculated values

The multiple regression analysis confirms that all the variables except employment at origin and destination are directly contributing to fishermen migration. The anticipated income at the destination is the most prominent among the factors inducing the Karwar fishermen to migrate.

8. Conclusion

Seasonal labour migration is an important and regular livelihood adoption undertaken by many communities depending upon natural resources as their main source of livelihood. A large number of fishermen from Karwar working as crew members in the native fishing boats operating in Kerala, Karnataka, Maharashtra etc. The study has identified certain push and pulls factors of migration and most of these factors are interdependent. The economic factors are probably the most possible determinants of migrant crew members and hired labourers whereas; occupational hazards and fishery infrastructure are the prominent factors influencing the boat operators to migrate. The migrants faced with certain problems in berthing, selling the catch, price of catch, cash receipts and payments etc. in their place of destination. However, the benefits that they enjoyed outweigh the costs in most cases. Ultimately the drive forces and the attractions have made the migrants better off than they were before. In addition to these, the interactions of migrant fishermen with the fishermen in the destination provide access to the exchange of technical expertise and skills as well as ideas and human values. Meanwhile, proper fishery management policy should be implemented for the optimum utilization of the existing fishery potentials of Uttara Kannada district keeping in view of the principle of sustainability.

9. References

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