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Migration Mosaic in Kerala: Trends and Determinants

MIGRATION connotes movement of persons from places or countries of origin to places or countries of destination and vice versa. It includes emigration (to other countries) and out-migration (to other states in India) and return flows of immigration or return emigration (from other countries) and in-migration or return out-migration (from other states in India). In order to collect information on the different flows of migration, extensive household interviews were conducted. The household interview schedule contained, *inter alia,* questions on return emigrants (REM) and returned out-migrants (ROM) as well as on emigrants (EMI) and out-migrants (OMI).

Method of Estimating Migration

The number of migrants is estimated by ratio method. Two approaches were tried: one using the ratio of migrants per household and the other using the ratio of migrants per household population.

The sample consists of 200 Panchayats/Municipal wards. We refer to them as localities. From each locality about 50 HHs were selected for canvassing. Thus, for each of the 10,000 households (and the total for each locality), we have information on the number of REM, EMI, ROM and OMI (more details of the study, see Zachariah, Mathew and Irudaya Rajan, 2000, 200la, 200Ib; Zachariah and Irudaya Rajan, 200la, 200Ib).

The estimation is done for each taluk separately. Thus, for a taluk (Thiruvananthapuram taluk for example) we have:

ri = Number of return emigrants in the sample households (HHs) in the rth locality
hi = Number of sample HHs in the /th locality (around 50)

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Hi = Total number of HHs in the /th sample locality (from Census)
H = The total number of HHs in the taluk (from Census)
REM = [{Sum of (Hi*ri/hi)}/Sum of Hi]*H

This exercise is done separately for each taluk. Other types of migrations such as EMI, ROM and OMI are also estimated by the same method. It should be noted, however, that since the census figures are for 1991, the migration estimates are also for 1991, although the migration ratios used are for 1998. The method of making corrections for this anomaly is discussed later in this section.

In the method described above, the main parameter used for estimation is the ratio of migrants to the number of HHs in a sample locality. An equally valid estimate of the number of migrants is obtained by using the sample population in the locality and estimating migrants per household population. The formula is:

REM* = [{sum of (Pi*ri/pi)}/Sum of Pi]*P

where Pi = census population in the panchayats
pi = sample population in the sample locality
P = total population in the taluk
ri = number of REM in the sample locality

Experimental calculations indicated that not much difference exists between the results obtained by the two methods. It is, therefore, necessary to decide which method to follow. There are advantages and disadvantages in selecting either method but there are stronger reasons to prefer the household ratio method.

First, the sampling is done on the basis of HHs and not population. Second, the number of HHs in a sample locality is fairly constant, 50. Third, the number of households (the denominator) in a locality is not affected by the number of migrants (the numerator). The numerator and the denominator are functionally independent. But this is not the case with population and migration. The number of emigrants affects the number of persons in a household, return migrants, etc. Fourth, there is little scope for making mistake in counting the number of HHs in a sample locality. There is practically no non-sampling error in the number of HHs in a sample locality. But, this is not the case with population. There is possibility of making mistakes in enumerating all the eligible and only the eligible members of the household.

A second criterion for evaluation of the migration estimates is the sampling error. Calculation of the coefficient of variation of the ratio of REM, EMI, etc. indicated that there is not much to choose between the two methods. There is, however, another very important aspect to be considered before we decide which method to choose.

The survey figures on REM, etc. are for 1998. Therefore, the migration ratios are for 1998. However, the census figures (total number of HHs or total population in a locality) are for 1991. Therefore, one more step is needed before the migration estimate

for 1998 is obtained. What we need is the number of HHs (population) in the various taluks in 1998.

Analysis of the past trend indicates that projection of the total population is likely to be more accurate than that of the number of households, which depends not only on the population growth but also on the number of persons per household. While the population has been increasing steadily, although at a diminishing rate, the number of persons per household had been decreasing rapidly during the past few decades. In the case of population growth, biological factors play a crucial role; social and economic factors have only long-term impact. But, in the case of family size, social trends have immediate impact. Therefore, the projection of the population has a better claim for selection than the projection of households.

We used the following formula to estimate the population in 1998:

$$P(\text{in } 98) = 0.598*(P \text{ in } 71) - 1.89*(P \text{ in } 81) + 2.295*(P \text{ in } 91)$$

The weights (0.598, etc.) are derived by fitting a second-degree parabola to the population in 1971, 1981 and 1991. The projected population of the taluks were added up to get the district and the State totals. As a check on the method, the results were compared with an independent projection of the total population of Kerala and validated (Irudaya Rajan and Zachariah, 1998).

The number of households may also be projected by the same formula, but a better way is to use the available information on average family size for 1998 from the sample survey. The projection is done in two steps. First, the population size is projected as described above. Then, the number of households corresponding to the projected population is estimated by using the ratio of households to population from the survey data, which is for 1998. The projected number of households is used to estimate migration.

The movement from 1991 to 1998 is a very important step in the estimation procedure. Assuming that the migration estimate by the HH method is better than that by the population method for 1991 and that the projection from 1991 to 1998 works out .better for population than for HH, we estimated the migrations for 1998 for each taluk toy multiplying the migration estimates obtained by the HH method for 1991 by a factor which is the ratio of the projected number of HHs for 1998 to the corresponding number ,of households in 1991.

Accuracyof the Migration

Migration estimates are subject to both sampling and non-sampling errors. The extent of the non-sampling errors is largely unknown. The sample was drawn scientifically, but a few inaccessible tribal areas had to be excluded from the universe. Therefore we do not claim it to be the one with the least sampling error.

Migration estimates at the state and the district levels are much more accurate (from the point of sampling error) than estimates for the taluks. Sampling is done at the district level, actually at the level of urban and of rural areas of districts. It was not done at the taluk level. In fact, it was accidental (the large sample size of 10,000 households is a factor) that all the 61 taluks are in the sample. Some taluks are represented by just one panchayat, while others are represented by 10 panchayats. Thus the sampling error of the estimates could be widely different for the different taluks. One should be, therefore, cautious with the use of taluk level migration estimates.

This study does not include a precise estimate of the sampling error. But some idea of the sampling error is obtained from calculation of the standard error of the migration ratios. The basic parameter used in the estimation procedure was the migration ratio. On the basis of data from the 200 localities the following statistics were obtained about these ratios; (see Table 1).

TABLE 1: STATISTICAL PARAMETERS OF MIGRATION ESTIMATES

	REM	*EMI*	*ROM*	*OMI*
Mean	0.120	0.211	0.146	0.117
SD	0.109	0.180	0.158	0.126
Standard error	0.008	0.015	0.010	0.008
Mean/SE	15	14	14	14

Thus, the standard error of the estimate is relatively small compared to the mean value of the ratio.

Using these standard errors, confidence intervals (95 percent) for the migration estimates were worked out (see Table 2).

TABLE 2: TOLERANCE LIMITS OF MIGRATION ESTIMATES

Migration type	*Mean*	*Upper limit*	*Lower limit*
Emigration	1,361,954	1,548,468	1,175,440
Out-migration	691,695	795,117	588,273
Return Emigration	739,245	845,062	633,428
Return out-migration	958,826	1,087,582	830,070

It should however be noted that these confidence intervals are based on the standard error of migration rates between panchayats; those based on variation within panchayats are not explicitly taken into consideration.

Migration Estimates

The household survey does not provide flow data on migration. What it gives is stock data on the number of persons of Kerala origin who live outside the country (EMI), and

TABLE 3: MIGRATION ESTIMATES BY DISTRICTS

Districts	*Rent*	*Emi*	*Rom*	*Omi*	*Emi +Omi*	*Rem +Rom*	*All*
Thiruvananthapura	118878	130705	95709	58282	188987	214587	403574
Kollam	74106	102977	83759	71300	174278	157864	332142
Pathanamthitta	54537	97505	52034	86485	183989	106571	290560
Alappuzha	34572	62870	160481	89523	152393	195053	347446
Kottayam	18164	35494	49220	37722	73216	67383	140599
Idukki	5017	7390	7546	9128	16518	12564	29081
Ernakulam	45028	103750	45272	34205	137955	90300	228255
Thrissur	116788	161102	193238	85663	246765	310026	556791
Palakkad	39238	1 16062	117891	73220	189282	157129	346411
Malappuram	123750	296710	26655	23823	320532	150405	470937
Kozhikode	60910	116026	50211	28340	144366	111121	255486
Way an ad	3327	4552	20436	2618	7170	23763	30933
Kannur	28263	88065	34176	46015	134080	62440	196520
Kasargode	16667	38747	22198	45371	84119	38865	122984
KERALA	739245	1361954	958826	691695	2053649	1698071	3751720

who live outside Kerala but within India (OMI) as well as the number of returned emigrants (REM) and returned out-migrants (ROM) in the state in 1998.

Migration Prevalence

An overall measure of the impact of migration on the Kerala households is given by Migration Prevalence Rate (MPR) which is the ratio of the sum of all the four types of migrants (emi + omi + rem + rom) in an area (district, taluk, etc.) to the number of households in the area. Table 3 gives the volume and Table 4 gives the rates for the districts and for the State as a whole. At the state level, there were 3.75 million migrants. With an estimated 6.35 million households in 1998, this number works out to about 60 migrants for every 100 households. Some households have more than one migrant, and, therefore, the figure 60 percent does not imply that that 60 percent of the households have a migrant each. In fact, the percent of households with at least one migrant is much less.

The number of migrants varies considerably from district to district. The largest number of migrants was in Thrissur District with 557 thousand persons. The neighbouring district, Malappuram is not far behind with 471 thousand. Thiruvananthapuram comes third with 404 thousand. The lowest number was in Idukki with only 29 thousand migrants. Wayanad had a marginally high number, 31 thousand migrants.

Thrissur district loses its first rank to Pathanamthitta district when migration rates are considered. In this district, the total number of migrants is almost the same as the number of households, the MPR being 99 percent. On the other hand, the two hilly

Table 4: MIGRATION RATE 'BY 'DISTRICT (PER 100 HOUSEHOLDS)

Districts	Rem	Emi	Rom	Omi	Emi +Omi	Rem +Rom	All
Thiruvananthapuram	18.1	19.9	14.6	8.9	28.8	32.7	61.6
Kollam	13.2	18.4	15.0	12.7	31.2	28.2	59.4
Pathanamthitta	18.5	33.1	17.7	29.3	62.4	36.2	98.6
Alappuzha	7.2	13.2	33.6	18.7	31.9	40.8	72.7
Kottayam	4.6	9.1	12.6	9.6	18.7	17.2	35.9
Idukki	2.0	2.9	3.0	3.6	6.6	5.0	11.5
Ernakulam	7.4	17.0	7.4	5.6	22.5	14.8	37.3
Thrissur	18.6	25.6	30.7	13.6	39.2	49.3	88.5
Palakkad	7.4	21.8	22.1	13.8	35.6	29.5	65.1
Malappuram	20.5	49.2	4.4	3.9	53.1	24.9	78.1
Kozhikode	11.5	22.0	9.5	5.4	27.4	21.1	48.4
Wayanad	2.1	2.9	13.0	1.7	4.6	15.1	19.6
Kannur	6.1	19.0	7.4	9.9	29.0	13.5	42.4
Kasargode	8.2	19.1	11.0	22.4	41.5	19.2	60.7
KERALA	11.6	21.4	15.1	10.9	32.3	26.7	59.0

districts of Idukki and Wyanad have very small migration prevalence rates of 12 percent and 20 per cent respectively. Pathanamthitta, Thrissur, Malappuram, Alappuzha, Palakkad, Thiruvananthapuram and Kollam have MPRs higher than the state average (of 59 per cent); all the remaining districts have less than the average.

Household Migration Rate

As mentioned earlier, some households have more than one migrant and, therefore, the MPRs do not provide a measure of the proportion of households with migrant(s). This proportion (called household migration rate or HMR) is much smaller than MPR (Table 5). For example, in Pathanamthitta, out of a sample of 471 households, only 280 had at least one migrant. This gives a HMR of 59 percent as compared to a MPR of '99 percent. The reason for the difference is that many of the households have more than one migrartt. iFor the State as whole, about 61 percent of the households had no Migrant of any type.

From the point of view of HMR also, Pathanamthitta stands first with an HMR of 59 per cent, Malappuram comes second with 52 percent and Thrissur ranks third with 50 per cent. Idukki and Wayanad came last.

Taluk-wise Analysis

As stated earlier, the present study was not designed to yield migration estimates by taluks. The sample size at the taluk level is insufficient for this purpose. However, the

TABLE 5: MIGRATION PREVALENCE RATE AND HOUSEHOLD. MIGRATION RATE, BY DISTRICTS

District	*MPR*	*HMR*
Thiruvananthapuram	61.6	44.9
Kollam	59.4	41.7
Pathanamthitta	98.6	59.4
Alappuzha	72.7	38.9
Kottayam	35.9	27.5
Idukki	11.5	7.6
Ernakulam	37.3	25.4
Thrissur	88.5	49.8
Palakkad	65.1	37.1
Malappuram	78.1	52.2
Kozhikode	48.4	37.7
Wayanad	19.6	16.0
Kannur	42.4	35.4
Kasargode	60.7	38.1
Kerala	59.0	38.5

sample included panchayats from all taluks in the State and it is possible to produce migration estimates for all taluks.

There are several taluks in which the total number of migrants exceed the number of households. The highest MPR is for Ranni Taluk in Pathanamthitta where for every 100 households there were 151 migrants. There are seven other taluks where the MPR exceeds the number of households. At the other end of the scale, Devikulam taluk has the lowest number of migrants per household, only five migrants per 100 households. The list of the ten high MPR and the ten low MPR taluks is given in Table 6 along with their HMRs: In general, taluks with high MPRs have also high HMRs, but the relationship is not perfect.

TABLE 6: TEN TALUKS WITH HIGH MPR AND TEN TALUKS WITH LOW MPR

	Taluks with the highest MPR				*Taluks with the lowest MPR*		
	Taluk	*MPR*	*HMR*		*Taluk*	*MPR*	*HMR*
1	Ranni	151	69	1	Devikulam	5	5
2	Chengannoor	131	60	2	Thodupuzha	7	5
3	Chavakkad	129	64	3	Peermede	8	6
4	Thiruvalla	119	64	4	Manathavady	10	10
5	Karthikapally	114	62	5	Vaikom	13	10
6	Mavelikara	110	62	6	Cherthala	17	12
7	Ponnani	109	66	7	Udumbumcho	21	14
8	Tirur	100	63	8	Sulthan Bethery	24	16
9	Kuttanad	98	50	9	Wythiri	24	19
10	Kozhencherry	95	58	10	Kunnathunadu	24	16

The taluks with high MPRs are mostly in central Travancore—in Pathanamthitta and Alappuzha districts—and those with the lowest are in the hilly districts of Idukki and Wyanad. The distinction of being the least affected district in Kerala by migration goes to Idukki.

Emigration

Till about the end of 1960s, cut-migration was the principal component of migration from the State (Mari Bhat and Irudaya Rajan, 1997). But since then emigration has overtaken out-migration. As noted earlier, the estimated total number of emigrants from the State in 1998, according to the present study is 1,362 thousand.

How realistic is this estimate? One way to find out is to compare it with estimates made by others using a different methodology. One major source of information on migrants is the Department of Economics and Statistics, Kerala Government. In 1980 they estimated that there were 5.17 lakh Kerala migrants outside Kerala. Out of this, 0.21 million were in foreign countries. The same office conducted a survey in 1992-93 and came up with a figure of 11.92 lakh migrants from Kerala were 6.41 lakh outside India.

An estimate made by Zachariah *et al.* (1994) gave a figure of 6 lakh. Another estimate made for 1993 by the National Family Health Survey of Kerala put the figure at 6.27 lakh (Nair, 1999).

The latest Economic Review (1998) of the State Planning Board gives the number of emigrants as about 1.6 million for 1997. B. A. Prakash, a scholar now working in the University of Kerala gives an estimate of 1.4 million for 1996.

The estimate given in the Economic Review and by Prakash are more or less of the same order of magnitude as the estimate obtained in this study. Notwithstanding this similarity, two differences need special mention—concept of a Kerala emigrant and, methodology of estimation. The estimate in the Economic Review and that by Prakash are for recent years and are very much in the plausible range, but they are based on untested methodology or use concepts that are unsuitable for this study.

Our estimate of the number of emigrants included only those who have roots in Kerala. It is not the number of Malayalees abroad, but the number of persons who have moved out from an existing household in Kerala. If a Malayalee, after living in Bombay for several decades had moved to Dubai (for example) he would be included in our estimate if and only if he has a family in Kerala to report to about his emigration. Similarly, a child born abroad to a Malayalee is not an emigrant in our calculations. We maintain that for an analysis of the consequence of migration on the economy of Kerala, we should consider as emigrants only persons who have live roots in the State.

Prakash's estimate is based on his assumption that half the number of Indian workers who went abroad were from Kerala, an untested assumption. The source of the Economic Review estimate is reported to be NORKA (Nor-Resident Keralites Affairs Department)

which is said to have received the numbers from the Indian Embassies abroad. Even in the best of circumstances, the embassy figures could only be on the number of Malayalees, irrespective of their migration history. But from Table 2.6 of the *Economic Review,* it is obvious that the Embassies too have used the untested assumption that fifty percent of the Indians in the Gulf countries are from Kerala.

On the other hand, the estimate given in this study is based on primary data collected from a sample of 10 thousand households from all the taluks in the State. The estimate at the state level (1.36 million) has a tolerance limit of 0.19 million (plus or minus). Thus, we conclude that in the second half of 1998, the number of emigrants from Kerala was somewhere between 1.55 million and 1.17 million. The estimate is lower than that given by others, but it has the advantage that it is based on sound methodology with very little speculative or untested assumptions. Conceptually, it is the one most suited for analysis of the determinants and consequence of emigration.

Emigration Trend

Until now, emigration from the state has been on a fast track, each year sending out more emigrants from the state than it did in the previous year. Table 7 which gives

TABLE 7: ESTIMATED NUMBER OF ANNUAL EMIGRANTS AND OUTMIGRANTS 1980-1998

	Year	*EMI*	*OMI*
Before	1980	35038	17830
	1980	11679	10452
	1981	31794	26438
	1982	33741	15986
	1983	40878	23979
	1984	25954	9223
	1985	38932	16601
	1986	42825	21519
	1987	22061	9223
	1988	77863	38735
	1989	28550	17830
	1990	89542	42424
	1991	49313	22134
	1992	85649	38735
	1993	113550	44883
	1994	112253	60254
	1995	128474	48572
	1996	145993	85463
	1997	155726	73781
	1998*	92138	67832
	Total	1361954	691694

* The data for 1998 are only for part of the year.

the number of emigrants by year of emigration as estimated from the present study, show that the number of emigrants increased very rapidly in recent years, from 313 thousand in 1988-92 to 692 thousand in 1993-97, an increase of 120 percent. These numbers support the earlier finding that emigration from Kerala has more than doubled since the Kuwaiti War of 1990-91.

Data on the stock of Indian migrants in West Asian countries supplied by the Ministry of Labour, Government of India, support the prevailing impression of a very large increase in the number of emigrants from India in recent years. The number of emigrant workers from India has increased from about 0.5 million in 1979 to 1.2 million in 1990 and to about 2.8 million in 1996.

It should be noted that our data given in Table 7 tend to exaggerate the upward trend in emigration as the number reported to have emigrated in earlier years is likely to be an underestimate of the actual emigration. They are underestimates because of attrition caused by return migration and deaths. In the circumstances, it may be confidently stated that emigration from Kerala has indeed accelerated considerably since the Kuwaiti War of 1990-91. Even when the number of return emigrants are added to the number of emigrants each year, the steep increase of emigrants persists.

Destination of the Emigrants

The Arab countries of the Middle East were the destination of nearly 95 percent of the emigrants from Kerala. Saudi Arabia alone accounted for nearly forty percent, in 1998. The other major Arab destinations were Dubai, Abu Dhabi and Sarjha, in the United Arab Emirates (UAE). Outside the Arab world, the principal destination was the United States of America which accounted for 2.2 percent of the total (see Table 8).

TABLE 8: COUNTRIES OF DESTINATION OF EMIGRATION

	Country	*Emigrants Percent*	*Numbers (in thousand)*
1	Saudi Arabia	38.1	519
2	Dta&ai	11.2	153
3	Abu Dhabi	9.7	133
4	Sarjha	8.8	119
4	Muscut	8.0	109
5	Baharin	5.7	77
6	Kuwait	5.1	69
7	Quatar	4.7	64
8	Oman	2.4	33
9	USA	2.2	30
10	Others	1.8	57
	Total	100	1,363

The country of destination of emigrants varies with the district of their origin. For example, about 38 percent of the emigrants went to Saudi Arabia; but as much as 58 percent of the emigrants from Malappuram, 51 percent from Kottayam and 50 percent from Ernakulam went to this destination. On the other hand, only 23 percent of the Pathanamthitta emigrants chose Saudi Arabia as their destination. For emigration from Pathanamthitta and Idukki, a major destination was the USA; (Table 9).

TABLE 9: DISTRIBUTION OF EMIGRANTS BY DESTINATION COUNTRIES AND DISTRICTS OF ORIGIN (Selected destinations and select districts only percentage)

Destination Countries *District of Origin*	*Saudi Arabia*	*Dubai*	*Abu Dhabi*	*Kuwait*	*USA*
Thiruvananthapuram	40	20	9	3	0
Kollam	47	12	10	1	0
Pathanamthitta	23	19	12	8	12
Thrissur	20	15	12	4	1
Palakkad	30	14	6	12	3
Malappuram	58	1	17	1	0
Kozhikode	35	10	5	6	1
Total	38	11	10	5	2

Some changes in destination countries have occurred over the years. After the Kuwaiti war, Saudi Arabia, Kuwait and Bahrain have become the preferred destinations while Abu Dhabi, Dubai, Qatar and Oman have lost some of their earlier attraction.

District-wise Analysis

The largest number of emigrants from Kerala originated from Malappuram district, 297 thousand or more than a fifth of the state total. For every 100 households in Malappuram there were 49 emigrants. Thiruvananthapuram was next in the order of importance but with only 131 thousand emigrants and formed about 10 per cent of the total. In Thiruvananthapuram there were about 20 emigrants per 100 households. Thrissur, Palakkad, Kozhikode, Kollam and Ernakulam had each around 100 thousand emigrants. Wayanad and Idukki districts had very few emigrants, 4,600 and 7,400 respectively; each had only less than 3 emigrants per 100 households.

In terms of emigration rate (emigrants per 100 household) Malappuram leads all the other districts. The second in order of importance is Pathanamthitta with 33 emigrants per 100 households. Thrissur, Kozhikode and Palakkad have rates higher than the state average, and this region is the origin of the majority of emigrants from the state.

Taluk-wise analysis. Taluk-wise analysis identifies more precisely the pockets of international migration in the state. In terms of total emigrants, and emigrants per household, Tirur taluk in Malappuram district leads all others. This taluk accounts for

nearly ten percent of the total emigrants from the state. There were nearly 70 emigrants for every 100 households in the taluk.

In terms of the volume of emigration, the first four taluks are in the Thrissur-Malappuram area: Tirur, Ernad, Ottapalam and Chavakkad. Next in the order comes the Thiruvananthapuram area: Thiruvananthapuram and Chirayinkeezhu taluks. Tiruvalla and Ranni (in the Pathanamthitta district) are the taluks with the next highest rates; (Table 10).

TABLE 10: TEN TALUKS WITH THE HIGHEST EMIGRATION RATE AND THE NUMBER OF EMIGRANTS IN THEM (IN THOUSAND)

Taluk	*Number* (in thousand)	*Rate* (per 100 households)	*Taluk*	*Number* (in thousand)	*Rate* (per 100 households)
Tirur	140	69	Ranni	19	37
Ponnani	29	59	Ottapalam	55	33
Chavakkad	53	58	Vadakara	38	32
Thiruvalla	26	45	Kochi	30	31
Ernad	97	38	Palakkad	37	31
		Total for all 61 taluks		13.62	21.4

In short, there are pockets of heavy emigration in the State. These are in the general zones around Thrissur-Malappuram districts, Ranni and Tiruvalla taluks in the Pathanamthitta district and Chirayinkeezhu and Thiruvananthapuram taluks of the Thiruvananthapuram district. The taluks least affected by emigration were Mananthvady, Thodupuzha, Devikulam, Vaikom, Peermede and Kanjirapally.

Return Migration

A normal and inevitable consequence of emigration of contract workers and out-migration is return migration to the place of origin. Nearly 95 percent of the Kerala emigrants went on contract jobs to the Gulf countries and they are not allowed to settle down in these countries permanently. They have no option but to return to Kerala or move to other countries when their period of work contract or visa is over.

Many emigrants go to the Arab countries alone leaving their families back home. How long could a man or woman live in a new environment without his/her family? How long could the family back home live alone in the absence of its breadwinner? Naturally, after a few years of work, many of the emigrants return and try to live a new life back home with the resources they have amassed abroad.

In the past, the situation with respect to out-migrants was not very much different, but in recent years more and more Kerala out-migrants tend to settle down in the states of work and domicile.

Return migrants comprising return emigrants (REM) and return out-migrants (ROM), numbered about 1,698 thousand in 1998. They represent about 27 persons per 100 households.

Destination of Return Out-migrants

Among the 14 districts, Thrissur has the largest number of return migrants, 310 thousand. Next in order are Thiruvananthapuram, Kollam and Alappuzha districts. In terms of rate per 100 households also, Thrissur leads all the other districts; (Table 11).

Among the 61 taluks, Thiruvananthapuram has the largest number of return migrants, 88 thousand. Thrissur taluk comes second. It seems that return-migrants do not always go back to their taluk of origin, but tend to settle down in areas like Thiruvananthapuram and Thrissur, where educational facilities and medical services are better than in their native taluks.

TABLE 11: RETURN MIGRANTS: NUMBER AND PROPORTION, BY DISTRICTS

District	*Return Migrants*		*District*	*Return*	*Migrants*
	Number (thousands)	*Per 100 HHs*		*Number* (thousands)	*Per 100 HHs*
Thrissur	310	49.3	Pathanamthitta	107	36.2
Thiruvananthapuram	215	32.7	Ernakulam	90	14.8
Alappuzha	195	40.8	Kottayam	66	16.8
Kollam	158	28.2	Kannur	62	13.4
Palakkad	157	29.5	Kasargode	37	18.4
Malappuram	155	25.7	Wayanad	24	15.1
Kozhikode	111	21.1	Idukki	13	5.0

In terms of return migrants per 100 households in a taluk, Chengannoor taluk in Pathanamthitta district ranks first. In this taluk, corresponding to 100 households there were 81 return migrants; Table 12.

TABLE 12: NUMBER OF RETURN MIGRANTS AND RATE OF RETURN OF MIGRATION BY Taluk (Taluk with very high and very low rates)

Taluk with high rates			*Taluks with low rates*		
Taluk	*Rate* (per 100 households)	*Number* (in thousand)	*Taluk*	*Rate* (per 100 households)	*Number* (in thousand)
Chengannoor	80.8	38	Devikulam	3.7	2
Mavelikara	74.8	62	Moovattupuzha	2.1	1
Karthikapally	67.8	60	Peermede	1.9	1
Kodungalloor	57.4	40	Thudupuzha	1.2	1
Chavakkad	56.3	53	Kothamangalam	0.0	0

Return Emigrants

Although the number of emigrants are much larger (1.97 times) than the number of out-migrants, the number return emigrants is only 77 percent of return out-migrants. The total number of return migrants is 1,698 thousand. Of them 739 thousand (44%) are return emigrants (REM) and 959 thousand (56%) return out-migrants (ROM). The largest number of return emigrants live in Malappuram district, 123 thousand. The neighbouring Thrissur district has about 117 thousand; and Thiruvananthapuram district also has an almost equal number, 119 thousand. Wayanad is the district with the smallest number.

Among the taluks, Thiruvananthapuram has the largest number (50 thousand).The other major centres of return emigration are the taluks of Eranad (48 thousand) Kollam (40 thousand) Chirayinkeezhu (38 thousand) and Tirur (36 thousand). In terms of the rate per 100 households, none of these taluks except Chirayinkeezhu, is at the top. The top five taluks are: Kodungalloor, Ponnani, Tiruvalla, Chirayinkeezhu and Chavakad.

Net Emigration Trend

Until now net external migration has uninterruptedly been positive; the number of emigrants was more than the number of return emigrants. But in the past few years net emigration has been declining. If the trend continues, it is very likely that return emigrants would have out-numbered emigrants by about the year 2000. According to this projection, net emigration must have become negative by the turn of the century. The number of emigrants and the number of return emigrants would continue to increase, but the increase in the latter would be much larger than the former.

Determinants of Migration

The basic motivation for migration is predominantly economic all over the world. People move from one place to another in search of better opportunities for employment and income and for economic security. In short, migration is undertaken by people with the hope of raising resources, necessary for improving the standard of living of themselves and their kinsfolk on a sustainable basis. There exist, of course, several other motivating factors too—climatic conditions, religious considerations, kinship ties, educational aspirations and so on. In Kerala, these factors appear to be of little relevance. Kerala migration, to the rest of India and to countries abroad, is almost entirely determined by economic considerations.

In analyzing the determinants of migration from any place, it is useful to differentiate the root cause of migration from proximate causes and facilitating causes. To the extent that unemployment and low wage rates are partly a result of high population density

and high population growth rates, demographic factors may be considered one of the root causes of migration. On the other side of the equation, is the lack of the necessary rates of economic growth. Shortage of capital resources has been identified as one factor for the absence of the required rates of economic growth in the State, but it is not the only factor. The failure of the local institutions to provide the needed support and to provide a milieu favourable for economic growth seems to be equally important. In this sense, the failures of the economic organization have been cited as another root cause of migration.

In this section, determinants of migration from Kerala are analyzed under various categories (factors) and at various levels: state, district, taluk, panchayat, household and personal. Two approaches are followed to evaluate the factors associated with migration:

l(!l)) ithe method of migration differentials and selectivity, and
;(2) regression method.

In the differential method, migration rates in the various sub-groups (e.g. community) are compared with the overall migration rate. If the difference is positive, that subgroup i(e.g. community) is said to be a positive determinant or a facilitating factor of migration. Persons belonging to that subgroup have, therefore, a higher propensity to migrate. If the difference is negative, the subgroup is negatively related to migration.

The differential may be large or small, statistically significant or not significant. These dimensions of the differential are tested by the second method in which migration rates are the dependent variable and socio-economic and demographic variables are the independent variables. Multiple regression coefficients give the association between a factor (community status, for example) and migration after the effect of other factors such as education and land ownership is controlled. In this respect, it is a step ahead in the analysis of the effect of the factor under consideration.

It may be noted that these approaches do not prove or disprove any theory of the determinants of migration. What they do is to identify factors associated with migration and measure the strength of the associations.

"Migration as a Process

There may be several factors behind a migration process; the presence of these factors alone may not constitute, however, sufficient cause for migration to take place. Even in the best of conditions, emigration or out-migration from a state usually begins in a trickle. A small number of pioneers begin the process and if the going is good, others follow. Migration begets migration; one migration leads to another. Once migration reaches a certain level, past migration itself will be a major cause of future migration.

Evidence suggests that migrants often rely on kinship with migrants who had already established themselves at the destinations for accommodation, finding a job, or securing

financial and other support during an initial period of adjustment in the new places. These kinship ties between potential migrants and migrants already at destinations reduce the costs and lower the risk of migrants as well as increase the returns from migration.

"Network connections can be considered a form of social capital which people can draw upon to gain information as well as material or psychological support so as to facilitate migration and the adaptation process. Migration networks therefore contribute to maintaining the migration momentum even after the factors responsible for initiating flow have lost their relevance. Further, as the costs and risks of migration decline, the flow becomes less selective in socio-economic terms and migration becomes more representative of the sending community as a whole" (United Nations, 1998).

In other words, once migration between two places has advanced beyond a critical level, the relation between migration rate and socio-economic factors may not be statistically measurable. The momentum of the past migration itself is likely to act as a driving force for future migration. This point should be borne in mind when we find some of the expected relationships statistically insignificant.

Causes

Push and Pull Factors in Migration

Migration is caused by negative factors (push factors) in the areas of origin as well as positive factors (pull factors) in the areas of destination. Analysis of the determinants of migration would, therefore, be incomplete, if it is confined to factors at the origin or at the destinations alone. Those at the destinations are particularly relevant in the case of international migration as it is often restricted by visa and work permit requirements, quotas, political considerations, etc. The pull factors were less relevant in the case of Kerala migrants who moved to other states in India. In this case, negative factors in Kerala should have played a more critical role than positive factors at destinations. It is instructive to note that Kerala was a net in-migration state until the 1940s and it is the push factors that developed in the State beginning with the 1950s, which determined the migration trend thereafter. Of course, the opening up of the region, particularly the areas of the erstwhile princely states of Travancore and Cochin, to the rest of India since independence (in 1947) must have been a facilitating factor.

In the following analysis of determinants of migration from Kerala, the pull factors are not discussed. This is not because they are thought to be of little relevance or importance, but mainly because of the non-availability of the required data.

Demographic Factors

Emigration and out-migration from Kerala were, in the first instance, a response

to the increasing population pressure in the State. Kerala was a net in-migrating State before the Indian Independence in 1947; the number of persons who migrated to Kerala having been larger than the number of persons who migrated from Kerala. During 1951-1961 Kerala became a net out-migration state (internal and external combined) and since then migration from Kerala increased at an accelerated rate. An underlying factor in the accelerated migration trend from Kerala was growing demographic pressures. Out-migration and emigration was a partial response to this rising pressure caused by the increasing gap between birth and death rates, which reached its maximum in the mid-1960s. It is interesting to note that the 1950s and the 1960s were decades during which migration within the state from more densely populated to less densely populated areas, was also taking place on a large scale.

Although Kerala's birth rate started declining in the 1960s, and has now reached the replacement level and many couples have even adopted the one-child norm, these changes have not removed the demographic pressure of the region. A critical demographic variable is human density (which has increased considerably throughout the past fifty years, and is likely increase for several decades more); the magnitude of the population base and the rate of population growth in young working age group is another. Both have been on an ascending path until now. Population projections for Kerala indicate that the working age population in the migration-prone age group of 20-34 years, increased by about 125 percent during the past 40 years. Thus, there is little doubt about an overall positive association between demographic pressure and migration from Kerala. However, the existence of a general or overall association is not sufficient ground for drawing the conclusion that migration has been caused by population pressure. At best, what we could conclude is that the demographic situation favoured the acceleration of the migration outflows from the state.

The survey data were used to test the extent of association between demographic pressure and migration. First, we have the migration trend: the number of emigrants and out-migrants who left Kerala since 1950. A clear positive association is observed between emigration and increase in demographic pressure.

Second, we have the migration rates for the various geographical regions in the State: districts, taluks, panchayats and households. The highest migration rate (emigration and out-migration combined) was in Pathanamthitta district (63 percent) but it has today one of the lowest population growth rates, one of the lowest population densities, and one of the lowest birth rates in Kerala. On the other hand, Malappuram district which also has a very high migration rate (second only to Pathanamthitta) has the highest population growth rate, the highest birth rate and a relatively high population density. Migration rate and demographic pressure do not have a direct one to one relationship, at least at the district level; several other factors seem to intervene in the relationship. It may also be the case that the causative factors working behind emigration are not exactly the ones which lie behind out-migration.

The correlation coefficients between migration rate on the one side and population growth rate, proportion of urban population, birth rate and density of population at the district level, on the other, are not found to be statistically significant. However, a multiple regression analysis (with migration rate as dependent variable) indicated significant association with the recent population growth rate and birth rate, but no significant association with population density or with proportion of urban population.

An exercise made with emigration rate as the dependent variable, also gave similar results: significant association with growth rate and birth rate, but no significant association with proportion of urban population and population density.

As far as internal migration is concerned, demographic factors do not seem to be very relevant any longer. Migration from Kerala to other parts of India is no longer determined by the current demographic conditions in the state. It is possible that it was demographic pressure, along with other facilitating factors such as education that initiated out-migration from districts like Pathanamthitta; but the continuation of high out-migration rates from districts in which the demographic pressure has eased considerably in recent years is a case of the effect of the momentum of past migration on the present migration.

At the taluk level, the only demographic variable that is observed to be significantly associated with emigration rate is population density. The higher the population density in a taluk, the higher is the emigration rate from that taluk. This is clearly not a case of the consequence but of a determinant. As far as out-migration is concerned, birth rate, population density or proportion of urban population has no significant relation and the association with population growth rate is negative. This finding reinforces our inference drawn on the basis of district level data that out-migration is no longer determined by demographic pressures.

The survey has provided data on emigration and out-migration rates at the panchayat level; the census gives panchayat level estimates of birth rate and population density. Analysis of the association of migration rate with birth rate and population density at this level indicates that they have significant association with rates of emigration and out-migration; but it is strong and positive in the case of emigration. Emigration rate is higher in panchayats where both birth rate and population density are high. On the other hand, the association between demographic variables and out-migration rate is negative. The finding drawn from analysis of district level and taluk level data is again verified.

Analysis at Household level : It is normal for larger household to have larger numbers of migrants. The number of emigrants per household increases sharply as the family size increases, but only up to a limit. In fact, the ratio remains constant from family size of four members onwards.

Migration and Age composition: Age composition is a determinant and at the same time, a consequence, of migration. Migration propensities are much higher in the young

working ages than in the younger or older ages. Therefore, migration rate is likely to be higher in areas where the proportion of adults in the younger working age groups is high. Emigration and out-migration rates by age groups are given in Table 13.

TABLE 13: RATES OF EMIGRATION AND OUT-MIGRATION BY AGE AT FIRST MIGRATION (PERCENT)

Age Group	*Emigration*	*Out-Migration*
< 20 years	1.05	1.93
20-24	12.79	9.19
25-29	13.81	5.12
30-34	9.52	2.08
35-39	5.06	0.93
40-44	3.32	0.55
45-49	1.34	0.24
50+	0.12	0.09
All ages	4.26	2.32

Emigration rate is the highest in the age group of 25-29 years while out-migration is the highest in the age group of 20-24 years. As the number of persons in the migration-prone age groups increase, the overall migration rate could also increase. In Kerala, the increase in the number of persons in the young working ages must have been one of the factors contributing to accelerated migration from the State. However in the coming years, the proportion of young adults in Kerala is likely to decrease and from that point of view, the urge for emigration and out-migration could probably come down.

Economic Factors

The basic motivation for migration from Kerala is economic. People move out of the State in search of employment, higher incomes and greater economic security—to improve their and their families' immediate and long term standard of living. On this presumption we should expect larger migration rates from economically backward areas. We tested this hypothesis by using State Domestic Product of the 14 districts in the State. The regression analysis is given in Table 14.

TABLE 14: REGRESSION BETWEEN MIGRATION AND PER CAPITA STATE DOMESTIC PRODUCT

		Emigration rate	*Out-migration rate*
Beta	=	-0.6842	-0.281
t-value	=	-3.25	-1.016
Significance level	=	0.007	0.330

The emigration rate has a significant negative association, but in the case of out-migration rate, the association though negative is statistically insignificant. Large-scale emigration is a relative new phenomenon for the sate, but that is not the case with out-migration. It has a longer history and, therefore, migration momentum is stronger in the case of out-migration. Economic factors need not any longer play as much a role in the case of out-migration as in the case of emigration, as past out-migration itself may be sufficient to keep it going. Two other economic variables were also tried out: the proportion of land under rice in a district (or taluk) and the area of land owned by households.

Stagnation in Agriculture as a Factor in Migration from Kerala

Migration option is, in one respect, similar to a decision to adopt birth control methods. Both serve the purpose of easing demographic pressure. One eases the pressure through reduction in birth rate and hence reductions in population growth rate. Migration achieves the same thing more directly. One should expect, therefore, that determinants of migration should have several common elements with determinants of the acceptance of family planning. One such common determinant is the stagnation in the agricultural sector following the agricultural wage increases. We maintain that, in the context of the accelerated demographic expansion in the State, the stagnation in the agricultural sector was one of the major factors in the acceleration of migration, especially out-migration, from the State.

Out-migrants from the State include, in a large proportion of cases, members of agricultural labour households. They move out because, after steep increase in agricultural wage rates, many could not find work in agriculture through much of the year. An equally important factor affecting the new generation, especially the grown up children of the "hutment dwellers"', could have been the near-impossibility of getting a plot of free land to put up a "hut" and raise a separate household of their own.

In a recent lecture at the Centre for Development Studies, Pulapre Balakrishnan hypothesized that the deterioration of agriculture in Kerala was caused by the large-scale emigration from the state. Migration and deterioration of agriculture are associated, but it is doubtful whether migration was the cause especially in the early years of migration. It could actually be the effect. We maintain that one of the major causes of migration from many parts of the State (central Travancore, for example) since the 1960s was the deterioration of agriculture and the inability of the agricultural sector to absorb the growth of young workers.

Empirical evidence to support this hypothesis is hard to come by because of the effect of past migration on present migration. Palakkad, Alappuzha and Thrissur are three of the districts with the largest proportions of rice lands. They also have higher-than-average out-migration rates, but not all of them have higher-than-average emigration rate. The multiple regression coefficients between proportion of land under rice and migration rates are statistically *insignificant.*

TABLE 14

District	*Emi rate*	*Omi rate*	*% of land under rice*
Palakkad	21.8	13.8	*42*
Alappuzha	13.2	18.7	37
Thrissur	25.6	13.6	35

Ownership of Land

Migration requires some investment, on an average about Rs 40 thousand for emigration. Similar estimate for internal migration is not available, but the costs of travel and initial expenses at destination are required for internal migration also. Therefore, financing migration is much easier for rich households than for poor households. One measure of the economic status of a household is the area of land it owns. Therefore, one should expect a positive association between ownership of land and migration rate. Table 15 gives the average land owned by households belonging to different migration groups and communities.

TABLE 15: AVERAGE LAND OWNED BY HOUSEHOLDS ACCORDING TO COMMUNITY AND MIGRATION STATUS, (in cents)

Community	*Emi*	*Rem*	*Rom*	*Omi*	*NoMig*	*Total*
SCs/STs	44	38	30	16	23	24
Nair	67	85	79	97	81	82
Ezhava	61	60	66	57	49	52
Syrian Xian	118	111	118	105	131	123
Latin Xian	66	54	494	46	49	80
Muslims	55	52	46	33	38	46
Others	63	44	127	84	82	81
All	65	61	119	70	57	65

The degree of association between emigration rate (and out-migration rate) and area of owned land per household is found to be weak. It is likely that landed households would find migration less essential on economic grounds than would be the case with landless households. The regression coefficient between land owned and migration rate, even after controlling for community and other variables, is statistically insignificant for the state as whole. However, in several districts, statistically significant associations are observed, (see Table 16).

Education

Education is a major migration-facilitating factor. From areas where the number of young educated persons is in excess supply, they tend to move to areas where there is demand for their services. Traditionally, out-migration from the State followed this pattern.

TABLE 16: MULTIVARIATE REGRESSION BETWEEN LAND OWNERSHIP AND MIGRATION RATES, AT HOUSEHOLD LEVEL: SELECTED DISTRICTS
(Family size was one of the control variables)

	EMl t-values	*OMI*
Thiruvananthapuram	—	4.2
Kollam	5.6	2.9
Pathanamthitta	2.6	—
Alappuzha	—	—
Kottayam	—	4.5
Emakulam	—	—
Thrissur	41	2.4
Palakkad	—	5.2
Malappuram	3.3	—
Kozhikode	—	—
Kannur	—	—

— means statistically *insignificant* association at 5% level.

Propensities to migrate were higher among educated persons. However this was not the case with the Gulf region where the demand, until recently, has been the greatest for construction workers. Table 17 gives the educational differentials by migration status.

TABLE 17: MIGRATION RATES BY EDUCATIONAL ATTAINMENT AT THE TIME OF MIGRATION

Education	*Migration Rate (%)*		*Percentage Distribution*		*Emi + Omi*
	Emi	*Omi*	*Emi*	*Omi*	
Illiterate	0.46	0.23	0.70	0.66	8.43
Literate	1.21	0.38	0.95	0.57	4.34
Primary Incomplete	4.13	0.71	3.49	1.14	4.70
Primary	3.29	1.05	10.81	6.54	18.28
Below Secondary	6.88	2.53	43.55	30.52	35.24
Secondary	7.33	6.04	30.04	47.11	22.82
Degree	9.41	6.36	10.46	13.46	8.19
Total	5.67	2.93	100.00	100.00	100.00

The overall emigration rate (emigrants per 100 persons over 15 years of age) is 5.67, but that among degree holders was 9.41, Higher educational categories are over-represented among the emigrants. Those with just primary education or less are underrepresented. Illiterates have the lowest emigration rate.

The educational differentials of the out-migrants are similar to that of the emigrants. However, the average educational level is higher among out-migrants than among emigrants. Out-migrants are over-represented only in the two highest educational categories—those with secondary school certificate and degree. While the differential between out-migrants and the total population is 63.12, that between emigrants and the

total population is only 39.62 Out-migration is more selective of the population at the higher educational levels than external migration is.

Employment and Occupation Status as Determinant of Migration

Employed persons holding secure and well-paid jobs may not benefit from migration as much as unemployed persons and persons employed in ill-paid and insecure jobs would. We should therefore expect very significant migration selectivity by employment and occupational status.

In the survey, all persons above 15 years of age were asked to state their current occupation. For all migrants who were away, information was collected on their occupation prior to migration as well as on current occupation at the destination. A comparison of the occupation prior to migration of emigrants and out-migrants with that of the household population is given in Table 18.

While the average emigration rate was 5.4 percent, that among the unemployed was 26.4 percent, and among those working in the private sector, 20.6 percent. These two were the principal occupational categories, which sent out emigrants. The other occupational groups, which had more-than-average emigration rates were: labourers in non-agriculture and the self-employed. Students, pensioners, and those engaged in household work had very low emigration propensities. Persons in government and semi-government jobs have also have less-than-average propensities to emigrate.

The situation with respect to out-migration was somewhat different. As in the case of emigration, the unemployed had the highest propensity. While the average out-migration rate was 2.8 percent, that among the unemployed was as high as 23.5 percent. Similarly, persons employed in the private sector also have high out-migration rates, of about double the state average. The other occupational groups, which had more than average out-migration rates were unpaid family worker, labourer in non-agriculture and student; (see Table 18).

The characteristics of households of out-migrants are not very much different from the emigrants in this respect. The heads of out-migrant households are over-represented in low status occupations, as has been the case with heads of the emigrant households.

The regression coefficient between emigration rate or out-migration rate and occupation (ordered from high status to low status occupation) is positive and statistically highly significant. The f-values from multivariate regressions are given in Table 19. The overall conclusion from this analysis is that unemployment, and employment in low status jobs, is a major determinant of emigration and out-migration from the State.

Community as a Determinant of Migration

Most of the destinations of emigrants from Kerala are Islamic countries. Therefore, it is natural to expect a higher propensity for emigration among this religious group. Other

TABLE 18: MIGRATION RATE BY OCCUPATION AT THE TIME OF MIGRATION AND PERCENTAGE DISTRIBUTION OF MIGRANTS AND TOTAL POPULATION BY OCCUPATION

Occupation	*Emigration Rate*			*Percentage*	
	Emi	*ami*	*emi*	*ami*	*Total*
Government employee	3.4	2.6	*2.2*	3.2	3.5
Semi-Government employee	3.1	1.3	0.6	0.5	1.1
Private Sector employee	20.6	5.0	15.4	7.3	4.1
Self Employed	5.8	1.0	13.9	4.7	13.1
Unpaid Family Worker	3.5	5.8	0.8	2.3	1.2
Agricultural labour	1.7	0.3	1.8	0.7	5.7
Labourers in non-agriculture	12.3	3.0	34.1	15.9	15.0
Unemployed	26.4	23.5	26.5	45.5	5.4
Voluntarily unemployed	0.1	0.1	0.2	0.3	8.5
Student	0.8	4.0	1.5	14.1	9.8
Household worker	0.5	0.5	3.2	5.6	32.2
Pensioner	0.4	0.0	0.1	0.0	0.7
Total	5.4	2.8	100.0	100.0	100.0

TABLE 19: REGRESSION BETWEEN MIGRATION RATE AND OCCUPATION BY COMMUNITY

Community	*emi rate*	*Omi rate*
	t-values	
SC/ST	17.2	6.9
Nair	17.6	7.0
Ezhawa	17.6	7.1
Syrian Xian	17.5	7.1
Latin Xian	17.5	7.1
Muslim	17.4	7.3

things being equal, migration rates should be higher among Muslims or in areas in which the proportion of Muslims is high. We have examined this proposition at the different disaggregated levels : district, taluk, panchayat and household.

Emigration : The average emigration rate (emigrants per 100 households) is 22 percent, but among the Muslims it is as high as 49 percent. Only two communities have emigration rates higher than the state average: Muslims arid Syrian Christians. The lowest rate is among the Scheduled Castes/Tribes (SCs/STs) only 3.4 percent, (see Table 20).

Out-migration : With respect to out-migration, the ranking of the communities looks very different. The average rate for the state as a whole is 11.5 percent. Syrian Christians, Nairs and Latin Christians have rates higher than the State average, while all the other groups have lower rates. Muslims, who ranked first with respect to

emigration, rank the second-lowest in out-migration . The Ezhavas and Latin Christians have almost equal rates and are close to the state average.

TABLE 20: EMIGRATION AND OUT-MIGRATION RATES BY COMMUNITY
(Rate per 100 households)

Caste	*Emigration*	*Out-migration*	*Total Migration from Kerala*
SCs/STs	3.4	5.8	9.2
Nair	13.9	19.2	33.1
Ezhava	13.2	11.2	24.4
Syrian Christian	24.6	22.1	46.7
Latin Christian	17.1	11.7	28.8
Muslim	48.6	6.3	54.9
Other	13.8	8.8	22.6
All	22.0	11.5	33.5

Total Migration : Among migrants (emigrants and out-migrants taken together), Muslims and Syrian Christians have migration rates higher than the state average. Muslims rank first, followed by Syrian Christians, Nairs, and Latin Christians in that order. Scheduled Castes/Tribes come last in the ranking. Variations exist in these rates from district to district.

District-wise Variation : Most of the districts follow the pattern described above, but there are a few differences too. Muslims do not have a higher-than-average migration rate in Pathanamthitta and Idukki Districts. In Pathanamthitta district, Syrian Christians dominate the migration scene; but more in emigration than, in out-migration. With respect to out-migration, the rates are the highest for Nairs and Syrian Christians come only second in the ranking. Muslims, who form a small minority in the population in the district, rank extremely low.

There is a clear difference between the northern and the southern districts as far as the migration rates of Syrian Christians are concerned. They have relatively high migration rate in all the southern districts, from Thiruvananthapuram to Ernakulam (in the former Travancore-Cochin region), but have lower-than-average rates in districts north of Ernakulam (particularly districts in the Malabar region).

Alappuzha and Palakkad are the only districts in which Nairs have a higher-than-average emigration rate. On the other hand, Nairs have higher-than-average out-migration rates in all districts except Kottayam and Malappuram.

The gross differentials between the migration rate of a particular community and the overall district or state average could as well be due to other related factors. For example, the higher emigration rate among Muslims could be due to their lower literacy rate, or higher birth rate or lower per capita income level, particularly in the districts

of Malabar. Regression analysis offers a method of testing this hypothesis. The analysis is dom at various levels: Household, District, Taluk, and Panchayat.

In the household level analysis, the *number* of emigrants (out-migrants) and migration rate (number of emigrants divided by the sum of household size and the number of emigrants) are taken as the dependent variables. Since the survey gives the community in respect of all the sample, all communities are separately included in the analysis. Each community is compared to all the others. The community variable takes the value 1 or 0 according to whether a particular household belongs to that particular community or not. For example, when we examine the effect of the Muslim community status on migration, Muslim households are given the value "1" and all other households are given the value "0". Similarly when we examine the effect of the Nair community status, Nair households are given the value "1" and all other households take the value "0". The results of the regression analysis are given in Table 21.

The regression analysis confirms the conclusion that the community variable has a very significant impact on migration at the household level. Muslim households and Syrian Christian households have positive and the other communities have negative effects on propensities to emigrate. As far as out-migration is concerned, Syrian Christian and the Nair communities have higher-than-average migration propensities, and Muslims and the SCs/STs have lower-than-average out-migration propensities. Ezhavas and Latin Christians do not have propensities different from the State average.

TABLE 21: MULTIPLE REGRESSION BETWEEN MIGRATION RATE AND COMMUNITY AFTER CONTROLLING FOR OTHER VARIABLES

Community	Wo *of Emigrants*		*Emigration Rate*	
	Beta	*t-value*	*Beta*	*t-value*
SC/ST	-0.0672	-6.6**	-0.04289	-4.1**
Nairs	-0.0531	-2.1*	-0.03650	-3.6**
Ezhawas	-0.0703	-7.1**	-0.0380	-3.8**
Syrian Christians	0.0159	1.6 N	0.0594	5.9**
Latin Christians	-0.0206	-2.1*	-0.0082	-0.8 N
Muslims	0.2121	21.0**	0.0882	8.6**
	No. of Out-migrants		*Out-migration rate*	
SC/ST	-0.0330	-3.1**	-0.0237	-2.3*
Nairs	0.0531	5.2**	0.0437	4.2**
Ezhawas	-0.0035	-0.35 N	0.0078	0.77 N
Syrian Christians	0.0697	6.8**	0.0781	7.6**
Latin Christians	0.0009	0.09 N	0.0039	0.39N
Muslims	-0.0545	-5.2**	-0.0717	-6.9**

** = significant at 1% level; * = significant at 5% percent level; N = not significant

Note: The other variables included in the regressions are Education of head, Occupation of head, land owned and electrification of house.

Analysis at the District Level: In the district level analysis, emigration rates (out-migration rates) are taken as the dependent variable. One of the independent variables will be the proportion of persons who are Muslims or Scheduled Castes/Tribes (data for other caste groups are not available in the census reports) in that area unit. Other independent variables such as literacy rate and proportion of urban population are also included.

The analysis showed that the emigration rate at the district level is significantly (statistically) associated with the proportion of Muslims in the district. The association is positive, that is, the higher the proportion of Muslims in a district, the higher is the emigration rate. The correlation remains statistically significant even when other variables such as literacy rate and level of urbanization are introduced into the regression. On the other hand, out-migration rate at the district level has a negative relationship with the proportion of Muslims, but the association is not statistically significant.

TABLE 22: REGRESSION OF MIGRATION RATE ON PROPORTION OF MUSLIMS AND SCs/STs AND SELECTED OTHER VARIABLES

Taluk Level Analysis

	t-values	
Variable	*Emi*	*Omi*
Muslim	2.8**	-1.2
Urban	-2.4*	-1.7
Density	2.6**	-0.0
Literacy	1.6	1.2

	t-values	
Variable	*Emi*	*Omi*
Scheduled Caste	-2.7**	-0.9
Urban	-2.5*	-2.0*
Density	3.3**	-0.3
Literacy	1.6	0.2

Panchayat level analysis

			Muslims	
Independent Variable	*Emi*		*Omi*	
Dependent variable	*Beta*	*t-value*	*Beta*	*t-value*
Muslim	0.496	77***	-0.229	-3.15**
Density	0.177	2.8**	-0.155	-2.17*
Literacy	0.050	0.7	0.049	0.66

SC/ST				
Independent Variable	*Emi*		*Omi*	
Dependent variable	*Beta*	*t-value*	*Beta*	*t-value*
SC/ST	-0.166	-2.16*	0.048	-0.61
Density	0.176	2.3*	-0.198	-2.54*
Literacy	0.049	0.7	0.104	1.41

Similar analyses done with proportion of households who belong to Scheduled Castes or Scheduled Tribes do not reveal any statistically significant association.

Analysis at Taluk level : Meaningful analysis could be done at the taluk level as the number of taluks (61) is much larger than the number of districts (14). Emigration rates show statistically significant association with the proportion of Muslims (positive significant at 1 percent level), and with the proportion of SCs/STs (negative association which was statistically significant at 1 percent level). However, the relation with out-migration rate was not statistically significant for either the proportion of Muslim or the proportion of SCs/STs; (Table 22).

Panchayat level: There are 200 panchayats in the sample and therefore we have a much larger sample for regression analysis. The migration rates, the dependent variables, are estimated from the survey, but ihe independent variables were obtained from the 1991 census.

The data show that the chance of emigration is statistically much higher for Muslims than that for others. On the other hand, if one belongs to SCs/STs, one's chance of emigration is much lower. Both these relations are highly significant. Fewer of the Muslims out-migrate than other communities do, and this association is statistically significant too. However, SCs/STs do not have statistically significant differentials as far as out-migration is concerned.

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