



Nature and composition of inter-state migration into districts of Kerala: some evidence from Census of India, 2011

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Abstract

The state of Kerala has always been the forerunner in educational and social reforms in India, but now it is crucial to integrate inter-state migrant workers into its society for the state's economic welfare. To achieve this, knowledge of size of migrant population and their regional distribution is essential. It could be eventually used for planning, provisioning health and welfare activities, sensitization of host communities, and making migrant inclusive policies. The main objective of this analysis was to describe the mobility into Kerala state by examining the inter-state and inter/intra-district migration streams, identifying the reasons for migration across the districts of Kerala using the data from the 2011 Census of India. In Kerala, 17.70 million (53.0%) were migrants by place of last residence while inter-state migrants in Kerala were 0.65 million. The largest proportion of inter-State migrants in Kerala was from Tamil Nadu (47.58%). Of all inter-state migrants in the districts of Kerala, the highest proportion was in Ernakulam district (12.3%). Among inter-state migrants from West Bengal, Bihar, Odisha and Assam (long-distance migrants), a minimum of 1.5-to-twofold increase among short duration migrants was observed. At the same time, about 20 percent reduction in proportion of short duration inter-state migrants from Tamil Nadu and Karnataka (short distance migrants) was noted. The main reason for internal migration was stated as 'marriage', but for inter-state migrants in Kerala the most common reason was 'Moved with household'. Among in-state women migrants, the reason for migration among a sizable percentage is 'Moved with household/family'. The public health programmes in Kerala have to take this characteristic into their reckoning and provide for them as well.

Keywords Kerala · Inter-state migration · Census 2011 · Profile of migrants

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Introduction

Kerala has witnessed considerable inter-state in-migration in the last two decades (Kumar 2018). In-migration to Kerala is a relatively recent phenomenon compared to out-migration from the state, and this has received relatively less attention among administrators and policy makers. The out-migration and return migration into Kerala have served to mask the volume of inter-state migration. Keralites with better education and higher literacy found it challenging to find concurrent skilled and professional jobs in Kerala, resulting in massive out-migration in search of skilled employment and better wages (Rajan 2014). This out-migration along with the demographic transition in Kerala have resulted in a situation where migrants from other states fill the existing labour shortage (Rajan et al. 2018).

The inter-state migration patterns into Kerala have changed over the past two decades, with more long-distance migrants sharing a significant quantum of in-migration into Kerala (Peter and Narendran 2017). Initially, inter-state in-migrants were mainly from neighbouring states of Tamil Nadu and Karnataka and these migrants worked in plantations of Idukki and Wayanad (Surabi and Kumar 2007). In the early 1990s, migrants from Odisha and Assam started working in the wood industry in Kerala after the crisis in plywood industries in their source areas (Peter and Narendran 2017). Now, a significant number of migrants travel to Kerala from the north and north eastern states. These long-distance migrants embody added layers of vulnerability as they mainly hail from disadvantaged locations (CMID 2019). This understanding of the changing pattern, numbers, socio-cultural ethos and inherent vulnerabilities associated with inter-state migrants will serve towards designing migrant inclusive welfare programs in Kerala.

Both Census and National Sample Survey (NSS) provide information on in-migration. In the Census, migrants are classified as 'Migrants by birth place' and 'Migrants by place of last residence'. 'Migrants by birth place' are defined as persons who were enumerated in a place different from the place where they were born, and 'Migrants by Place of last residence' are defined as persons whose place of the last residence is different from the place of enumeration (Census 2011a). Till 1961, census migration data was collected by place of birth only. Since 1971 migration data is being collected for 'place of birth' and 'place of last residence'. The NSS defines migrants only by place of last residence criteria (Ministry of Statistics & Programme Implementation 2010).

The data on migration collected in the Census and NSS fails to capture the real volume of migration with any degree of accuracy as they exclude seasonal migration, temporary and circular migrants (Bhagat 2005). Another concern with the existing sources of data for migration is its timeliness. The NSS survey on migration was conducted during 2007–2008, while the latest Census was conducted in 2011, and data was made available only in 2019. This delay in data availability has resulted in novel approaches by academicians and others to estimate the interstate in-migration to Kerala. In a train travel-based study in 2013, domestic migrant labourers were estimated to be 2.5 million (Narayana and Venkiteswaran 2013). Another study estimated the volume of interstate migrants using total employment data as 3.14 million in 2017–18 (Parida and Raman 2021). Migration scholars have critiqued the earlier train travel-based study for overestimating migrants. However, similar methods have been employed by the Economic Survey of 2016–17 to provide estimates of labour migration across the country (Economic Survey 2016–17).

The Census data on migration is compromised by the definitions used but it still provides a comprehensive description of the volume and patterns of migration. While the volume of migration is disputed, the patterns of migration offers insights as regard regarding

the source states and therefore enables identification of potential vulnerabilities with respect to health. The host state requires information about its migrant population to bridge the information gap about the number of migrants working, their distribution and details of their sending states. This understanding could eventually be used for planning, provisioning for health and welfare activities, sensitization of host communities, and developing migrant inclusive policies (Parida and Raman 2021). This exploration in particular tries to describe the patterns of in-migration into Kerala, significant reasons for in-migration and identifying the distinguishing characteristics of internal migrants by comparing them against non-migrants in Kerala. This analysis proposes to describe the mobility into Kerala state by examining the inter-state and inter/intra-district migration streams, identifying the reasons for migration across the districts of Kerala and describe the migrants in terms of their characteristics including marital status, literacy and employment, using the data from the 2011 Census of India.

Methodology

The D series tables from Census of India 2011 have been used to obtain estimates of migration, reasons for migration and characteristics of internal migrants. To describe non-migrants characteristics, Census tables B1, C2 and C11 were used for employment, marital and literacy status, respectively (Census 2011b). In the Census, migrants are categorized as 'Migrants by birth place' and 'Migrants by place of last residence'. In this analysis, migrants are classified based on 'place of last residence'. Migrants with the 'place of last residence' within India only are included in the analysis. Migration by place of birth may not fully capture the current migration scenario as it will only report lifetime migrants. In contrast, migration by last residence points towards the present or relatively more recent migration scenario.

Migration streams were enumerated as rural–rural, i.e., people moving from rural-to-rural areas; rural–urban: people moving rural to urban areas; urban–rural: people moving from urban to rural areas; urban–urban: people moving from urban-to-urban areas. The state of Kerala consists of 14 districts, and for better depiction of migration, we categorized districts into North, Centre and South districts. Northern districts consist of Kasaragod, Kannur, Wayanad, Kozhikode and Malappuram. Central districts included Palakkad, Thrisur, Ernakulam, Idukki and southern districts included Alappuzha, Kottayam, Pathanamthitta, Kollam and Thiruvananthapuram.

Again, during the computation of district wise inter-state migrants, states contributing more than 500 migrants in each district was tabulated. If a district did not have six source states with more than 500 migrants, the top 6 states were taken for tabulation. All other remaining states were grouped as 'Others'. As per Census, the duration of stay at the place of enumeration was classified as less than one year, one to four years, five to nine years, ten to nineteen years and twenty plus years. In this work, we have classified duration into two categories, i.e., less than ten years (short-duration migration) and more than ten years (long-duration migration).

The characteristics used to compare migrants and non-migrants are literacy, marital status and employment in Kerala. In the Census 2011a, b, a person aged seven and above, who can both read and write with understanding in any language, is treated as literate. A person, who can only read but cannot write, is not counted as literate (Census of India 2011). Before 1991, children below five years of age were necessarily treated as illiterates

in the censuses. In this document computation for age-wise distribution of migrants and literacy status, age group 0–4 was excluded both in denominator and numerator, but we have included five years and above as it was the next age group which is closed to the definition given in literacy tables. Therefore, the age group for migrants' literacy status were categorized as 5 to 19 yrs., 20 to 34 yrs., 35 to 49 yrs., 50 to 64 yrs., 65 to 79 yrs., 80 plus and age not stated. The same comparative age groups were obtained for the total population by excluding 0 to 4 age groups. The total population thus grouped also includes internal migrants, so to get non-migrant estimates, we subtracted migrants from the total population. This made it possible to compare migrants and natives.

Employment status was also calculated in the same way as literacy status. The Census defines 'Main Workers' as those workers who had worked for the major part of the reference period, i.e. six months or more. 'Marginal Workers' are those workers who had not worked for the major part of the reference period, i.e. less than six months and 'Non-Workers' as those who have not worked at all in the reference period, i.e., in the last year (Census of India 2011). For this exercise, age groups for employment status were categorized as 5 to 14 yrs., 15 to 24 yrs., 25 to 34 yrs., 35 to 49 yrs., 50 to 69 yrs., 55 to 64 yrs., 70 plus and age not stated to make it comparable with the total population. We have excluded the age group 0 to 4 years from both numerator and denominator. Again, to get non-migrants estimates, we subtracted migrants from the total population, which enabled us to compare migrants and non-migrants.

Marital status is classified as currently married, never married, widowed, separated and divorced. The Census table for migration (D series) data was available only for people with the duration of residence in place of enumeration stated as 0 to 9 yrs. It is challenging to differentiate migrants and non-migrants as we did for literacy and employment status in this scenario. In this document age group is categorized as 10–19 yrs., 20–29 yrs., 30 to 39 yrs., 40–49 yrs., 50–59 yrs., 60–69 yrs., 70–79 yrs., 80 plus, and age not stated. We excluded the age group 0–9 yrs from numerator and denominator as marital status was not reported in this age group.

Microsoft Excel version 16 and Tableau version 2020.3 were used to compute migration estimates and present tables, graphs, and maps. Tableau is a data visualization software which helps in interactive data visualization and also have excellent visualization options when compared to Microsoft Excel and many other data analysis software (Microsoft Excel 2016; Nelson 2020).

Results

Internal and inter-state migration and streams of migration by place of last residence in Kerala

There were 17.70 million (53.0%) migrants in Kerala according to Census 2011a, b, by place of last residence. Among 17.70 million migrants, 7.21 million were male (40.8% of total migrants), and 10.48 million were female (59.2% of total migrants). Of these migrants identified using the 'place of last residence' criteria, 13.92 million (78.6%) were intra-district migrants, 3.12 million (17.6%) were inter-district, and 0.65 million (3.8%) were inter-state migrants.

Among total internal migrants by place of last residence, 9.76 million (55.1%) migrated to rural areas and 7.94 million (44.9%) to urban areas. Of all migrants, the migration

streams in Kerala were rural to rural (R-R) 37.3 percent, followed by rural to urban (R-U) 24.1 percent, urban to urban (U-U) 14.0 percent and urban–rural (U-R) 10.1 percent. ‘Unclassified’ accounts for 14.5 percent of the internal migrants. Among male and female migrants, R-R migration constituted the highest proportion with 33.9 percent and 39.6 percent, respectively (Annexure 1).

In Kerala, of the total inter-state migrants (0.65 million), 0.34 million were males (52.1%), and 0.31 (47.9%) were females. Inter-state migrants in rural areas were 0.31 million (47.2%) compared to 0.34 million (52.8%) in urban areas. Among inter-state migrants in Kerala, the migration streams were U-U (29.4%), followed by R-R (26.9%), R-U (19.1%) and U-R (16.9%). The U-U migration is dominant among inter-state male and female migrants, i.e., 28.5 percent and 30.5 percent, respectively (Fig. 1).

Distribution of inter-state migrants in Kerala and its districts by place of last residence

In Kerala, the most significant share of inter-state migrants were from Tamil Nadu (47.6%), followed by Karnataka (17.0%) and Maharashtra (7.2%), and leading migrant-sending states remain unchanged when compared to Census 2001. As per Census 2001, the most significant share of inter-state migrants were from Tamil Nadu (62.1%), followed by Karnataka (13.9%) and Maharashtra (6.6%). A reduction of nearly 15 percentage points was observed in the share of migrants from Tamil Nadu in Census 2011a, b compared to Census 2001. The proportion of migrants from the north and north eastern states have increased when compared to their proportion in 2001, as indicated in Fig. 2.

As seen in Fig. 3, among districts of Kerala, out of all inter-state migrants, the proportion was highest in Ernakulam (12.3%), followed by Palakkad (12.1%), Thiruvananthapuram (10.5%) and Kasaragod (9.3%).

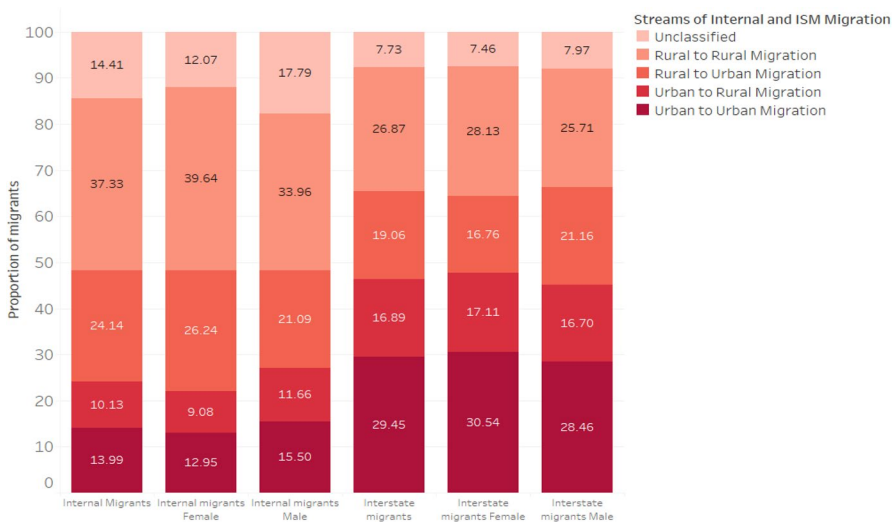


Fig. 1 Streams of internal and inter-state Migration in Kerala by ‘Place of last residence’

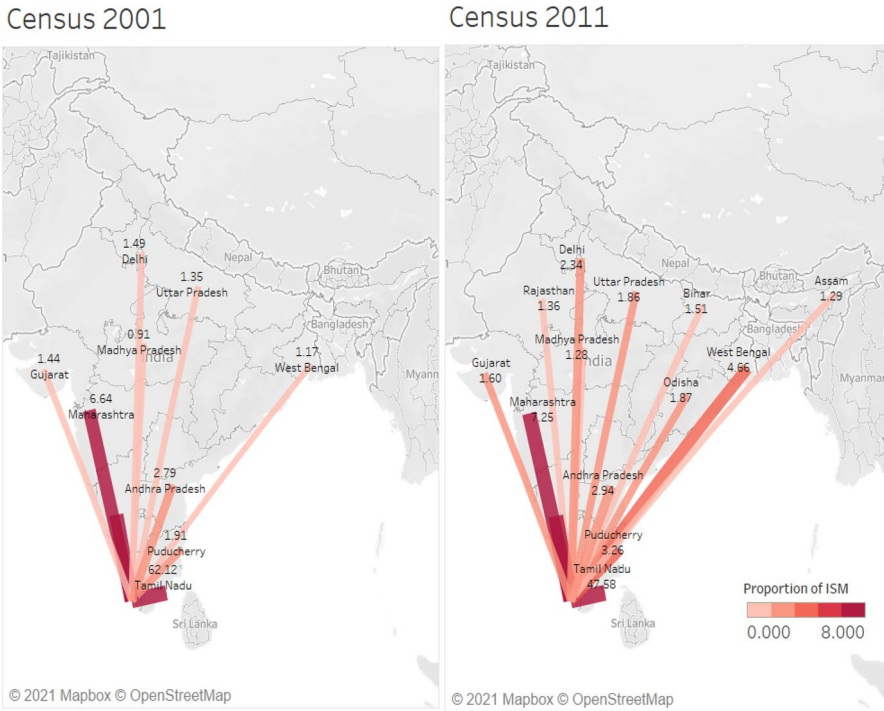


Fig. 2 State-wise distribution of inter-state migrants in Kerala in Census 2001 and 2011

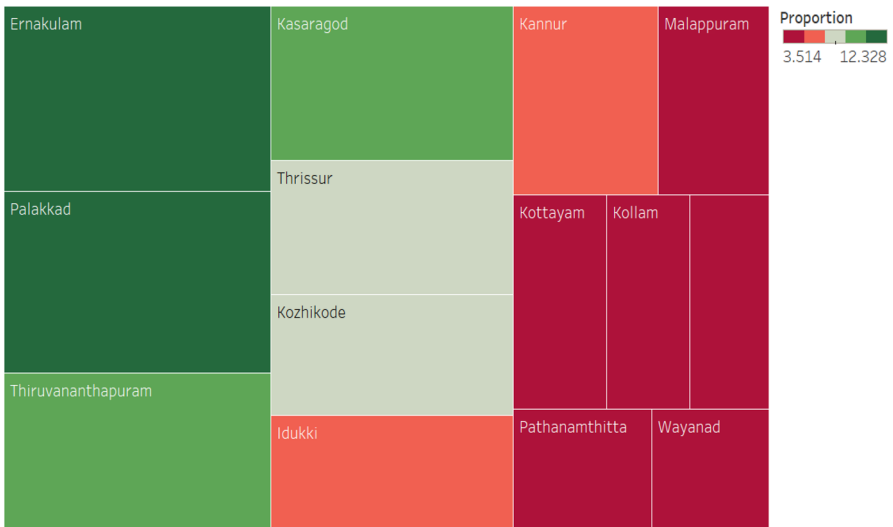


Fig. 3 District wise distribution of inter-state migrants in Kerala by ‘place of last residence’

State of last residence among inter-state migrants in districts of Kerala

Kasaragod and Kannur had the highest inflow of inter-state migrants from Karnataka in the northern districts. In Kozhikode, Malappuram and Wayanad, most inter-state migrants were from Tamil Nadu. Kannur and Kozhikode had significant number of people from Puducherry, which may be attributed to the presence of Mahe, which is part of the Union Territory of Puducherry. Male migrants dominated long-distance migration (Annexure 2).

The highest proportion of inter-state migrants in all the central districts of Kerala were from Tamil Nadu. Unlike northern districts, central districts had more proportion of people from Maharashtra than Karnataka. The source states consisting of more than 500 inter-state migrants in Ernakulam were more than any district in the central zone. As seen in the northern districts, long-distance migration was predominantly male. This trend was not seen for inter-state migrants from the north and north western states, i.e. Rajasthan, NCT Delhi and Gujarat (Annexure 3).

Southern districts also had a high proportion of inter-state migrants from Tamil Nadu, followed by Maharashtra. The southern districts had a more comprehensive range of states with more than 500 migrants when compared to the northern and central districts in Kerala. Inter-state migrants from Jammu & Kashmir were enumerated in Alappuzha, Kollam and Thiruvananthapuram districts. Districts showed similar migration trends as seen in the central and northern districts (Annexure 4) (Fig. 4).

Inter-state migrants by duration of residence in Kerala

The neighbouring and southern states like Puducherry, Tamil Nadu, Karnataka and Maharashtra had the most significant proportion of inter-state migrants with duration of stay more than ten years. In the past ten years, considerable inflow of inter-state migrants was observed from north and north eastern states. West Bengal, Odisha and Assam represented more than 80 percent of inter-state migrations in the past ten years (Fig. 5).

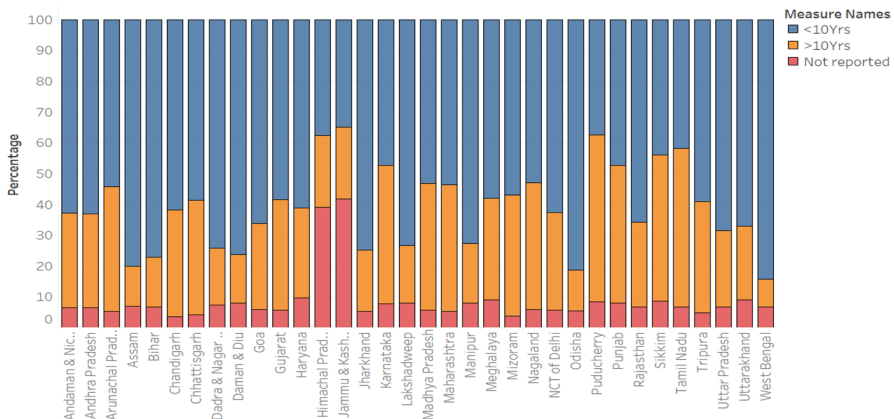


Fig. 4 The state-wise proportion of inter-state migrants by duration of residence in Kerala

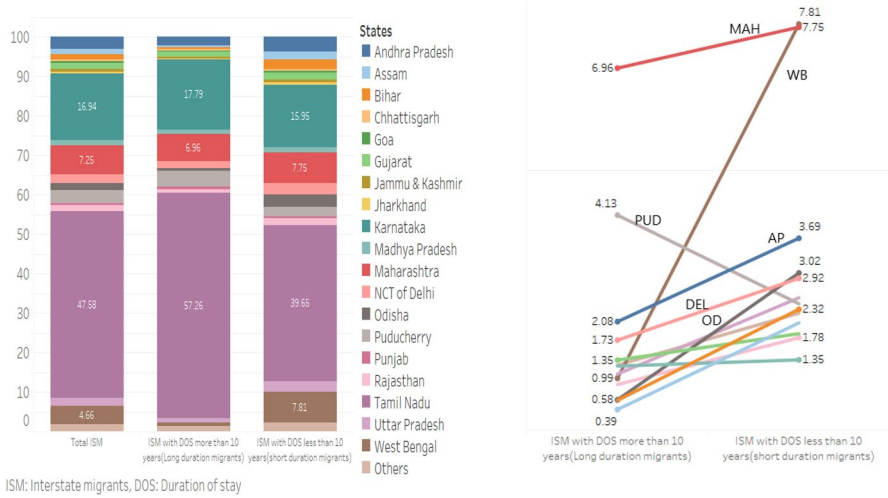


Fig. 5 State-wise proportion of inter-state migrants among long and short duration inter-state migrants

State-wise proportion of inter-state migrants among long and short duration inter-state migrants

Long duration inter-state migrants from Tamil Nadu and Karnataka account for nearly three-fourth of all long-duration inter-state migrants. But there is a 20 percent reduction in the proportion of short duration inter-state migrants from Tamil Nadu and Karnataka.

Among inter-state migrants from West Bengal, Bihar, Odisha and Assam, a minimum of 1.5-to-twofold increase in short duration migrants was observed compared to long-duration migrants from these states.

Inter-state migrants by the state of last residence and duration of stay in districts of Kerala

Among the districts of Kerala, Idukki (56.7%) has the highest proportion of inter-state migrants staying for more than ten years, followed by Wayanad (55.8%) and Kannur (54.9%).

Out of total inter-state migrations in districts of Kerala, only one third are reported to have migrated in the past ten years (Fig. 6).

In northern districts, Kannur and Kozhikode had more than half of the inter-state migrants from Puducherry residing for more than ten years, which is most likely owing to its proximity to Mahe. In Wayanad and Malappuram, people from Tamil Nadu constituted the highest proportion of inter-state migrants staying for more than ten years. In Kasargod, a reasonable share of migrants staying for more than ten years were from Karnataka. The states in the north and northeast, i.e. West Bengal, Bihar, Odisha and Assam, contributed the highest proportion of migrants (more than 80%) in the the duration of residence category of less than ten years. (Annexure 5). Of the central districts, Ernakulam had all prominent states contributing to migrants with the duration of stay less than ten, except for

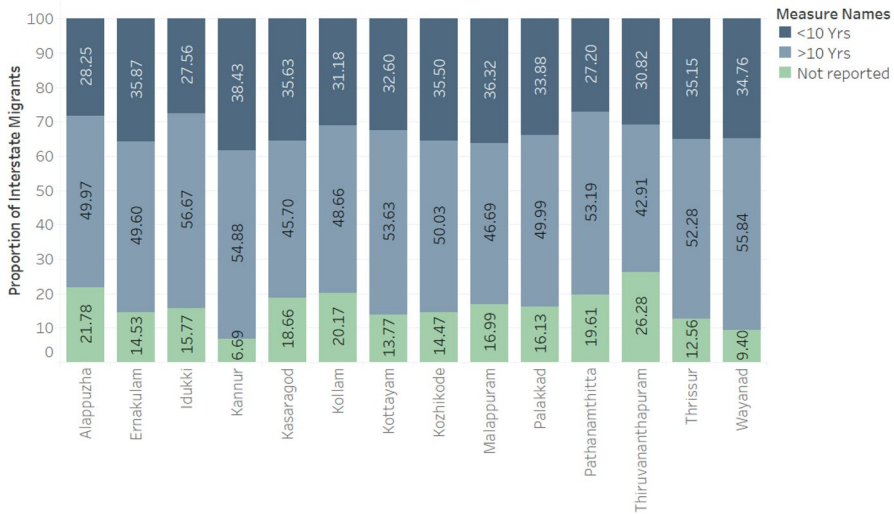


Fig. 6 Proportion of inter-state migrants with duration of stay in districts of Kerala

Tamil Nadu and Gujarat. In Idukki, inter-state migrants from Assam (94%) had duration of stay less than ten years. In Palakkad and Thrissur, people from Bihar, Odisha and West Bengal constituted the highest proportion of migrants residing for the duration category—less than ten years. (Annexure 6). Among southern districts, in Alappuzha, all prominent states had more than 50 percent of inter-state migrants who reported duration of residence less than ten years, except for migrants from Tamil Nadu, Madhya Pradesh and Jammu & Kashmir. It was interesting to note that unlike Kerala’s north and central districts, southern districts of Kollam, Alappuzha and Thiruvananthapuram had migrants from Jammu & Kashmir with a high proportion of duration not stated. Among southern districts, inter-state migrants from West Bengal, Odisha and Bihar had the highest proportion of migrants staying less than ten years. It was noted that the difference between migrants staying less than ten and more than ten years was less when compared to that in northern and central districts (Annexure 7).

Reasons for internal and inter-state migration in Kerala

In Kerala, the main reason for internal migration was stated as ‘marriage’ (30.2%), followed by ‘moved after birth’ (24.9%). Among all men who had migrated, ‘moved after birth’ (24.1%) was the most frequent reason for migration, followed by ‘others’ (29.6%). About 7.4 percent stated ‘Work/Employment’ as the reason for migration. Among female migrants, ‘marriage’ was the most frequently cited reason for migration (46.6%).

Among inter-state migrants in Kerala, the most common reason cited for migration was ‘Moved with household’ (29.5%), followed by ‘Work/employment’ (23.6%) and ‘Marriage’ (18.6%). In this group, the most common reason for migration among men was ‘Work/employment’ (38.1%) and among females, ‘Moved with household’ (34.9%). ‘Marriage’ (32.7%) was not the single most common reason for inter-state migration among females compared to internal migrants (Fig. 7).

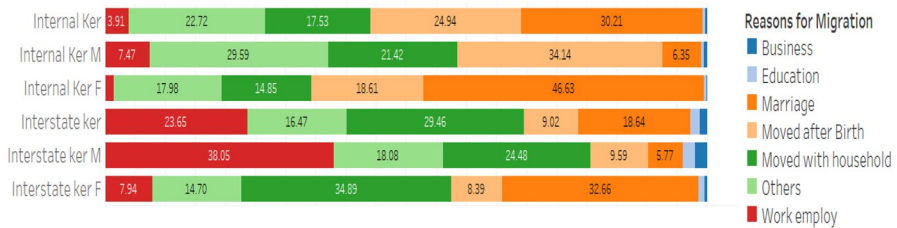


Fig. 7 Reason for internal and inter-state migration in Kerala

Reason and type of migration among migrants across districts of Kerala

Among districts of Kerala, the proportion of inter-state migrants stating ‘employment’ as the reason for migration was highest in Malappuram (35.6%), followed by Ernakulam (35.2%). Migrants stating ‘marriage’ as the reason for migration was highest among inter-district migrants in Pathanamthitta (44.4%) and Alappuzha (41.0%). Border districts, Kasaragod and Thiruvananthapuram, had more than 30 percent inter-state migrants stating ‘marriage’ as the most common reason for migration.

In the Northern districts of Kerala (as described in Table 1), among migrants stating employment as the reason for migration, the highest proportion was among inter-state migrants in Malappuram (35.6%), followed by Kannur (26.2%) and Kozhikode (22.8%). In northern districts, among all types of migration, education was stated as a reason for migration by less than one percent of people except Kozhikode, where 2.1 percent of inter-district and 5.9 percent inter-state migrants stated ‘education’ as the reason for migration. Marriage was the most common reason for migration among inter-district migrants in Kozhikode and Malappuram and inter-state migrants in Kasargod (33.8%). The highest proportion of migrants stating the reason as ‘Moved with household/family’ was among inter-district migrants in Wayanad (40.2%) and Kannur (38.3%). Kozhikode (23.7%) and Malappuram (30.3%) inter-state migrants moving with household/family outnumbered intra/inter-district migrants.

Among males in the northern districts of Kerala (as described in Table 1), more than 80 percent of inter-state migrants stated employment and business as the most common reason for migration. Within the intra/inter-district migrants, more than 75 percent of males had stated ‘employment’ as the most common reason for migration. Among females, ‘marriage’ was the most common reason for migration. Within districts, the highest proportion of migrants among females were reported among intradistrict migrants in Malappuram (98.0%). Except for Kasargod (91.2%), all other districts had female inter-state migrants reporting ‘marriage’ as the reason for migration, and this proportion is far less than intra and inter-district migrants.

In districts of Central Kerala (as described in Table 2), among migrants stating ‘employment’ as the reason for migration, the highest proportion was among inter-state migrants in Ernakulam (35.2%), followed by Idukki (32.2%). ‘Marriage’ was the most common reason for migration among intra-district and inter-district migrants in Ernakulam, Thrissur and Palakkad. The highest proportion of migrants stating the reason as ‘moved with household/family’ were among inter-state migrants in Ernakulam (35.3%), Thrissur (35.2%) and Palakkad (29.2%). In Idukki (34.6%) highest proportion of people stating the reason as ‘Moved with household/family’ were among interdistrict migrants.

Table 1 Reason and type of migration among migrants – Northern districts

District	Migration types	Employment Total	Employment Female	Business Total	Business Female	Education Total	Education Female	Marriage Total	Marriage Female	Moved after birth Total	Moved after birth Female	Moved with house-hold Total	Moved with house-hold Male	Others Total	Others Female
Kannur	Intra District	1.63	23.05	0.16	36.81	0.28	56.38	24.03	83.76	36.27	46.17	21.46	48.55	16.16	48.84
	Inter District	7.96	20.97	0.33	27.23	0.69	50.12	25.10	85.46	14.92	45.04	38.30	52.21	12.70	47.74
	Inter State	26.21	12.91	0.88	18.88	0.96	36.21	12.96	78.01	9.60	44.75	33.73	42.99	15.67	35.98
Kasargod	Intra District	2.09	17.20	0.14	22.48	0.38	44.16	24.57	92.50	27.52	45.77	16.01	50.03	29.29	46.50
	Inter District	8.07	18.68	0.28	17.28	0.42	54.81	19.42	85.83	26.30	47.34	32.69	51.12	12.83	46.15
	Inter State	10.13	15.17	0.42	18.29	0.69	25.47	33.85	91.23	19.22	45.37	19.54	47.80	16.14	49.38
Kozhikode	Intra District	1.28	23.18	0.12	36.82	0.27	46.47	26.89	95.65	31.76	42.88	16.52	52.36	23.16	46.56
	Inter District	8.19	22.59	0.44	16.58	2.14	33.40	30.59	93.11	20.34	45.19	22.86	49.29	15.43	50.18
	Inter State	22.79	11.15	1.62	13.86	5.94	17.43	11.50	86.66	17.21	44.48	23.67	43.02	17.25	40.20

Table 1 (continued)

District	Migra- tion types	Em- ploy- ment Total	Em- ploy- ment Female	Busi- ness Total	Busi- ness Female	Educa- tion Total	Educa- tion Female	Mar- riage Total	Mar- riage Female	Moved after birth Total	Moved after birth Female	Moved with house- hold Total	Moved with house- hold Male	Others Total	Others Female
Malap- puram	Intra Dis- trict	1.27	21.68	0.10	38.05	0.17	49.54	37.82	97.93	28.71	45.18	8.92	51.96	23.02	47.71
	Inter Dis- trict	7.65	25.97	0.31	23.52	0.41	48.21	33.15	94.03	25.47	45.08	19.03	49.12	13.99	49.83
	Inter State	35.61	11.33	1.25	12.59	1.36	23.93	12.98	74.44	4.99	43.69	30.29	46.11	13.51	35.94
Wayanad	Intra Dis- trict	2.97	23.25	0.12	28.44	0.71	48.40	23.79	94.33	33.33	44.59	19.26	53.24	19.80	46.35
	Inter Dis- trict	10.48	17.17	0.44	14.71	0.67	46.42	23.28	93.35	12.86	43.10	40.18	52.86	12.10	46.91
	Inter State	16.56	19.06	0.63	8.28	0.99	29.82	27.48	88.62	9.48	42.98	31.69	49.01	13.16	47.14

Table 2 Reason and type of migration among migrants – Central districts

District	Migration types	Employment Total	Employment Female	Business Total	Business Female	Education Total	Education Female	Marriage Total	Marriage Female	Moved after birth Total	Moved after birth Female	Moved with house-hold Total	Moved with house-hold Female	Others Total	Others Female
Ernakulam	Intra District	3.56	21.61	0.28	22.54	0.32	55.37	30.16	94.76	23.95	42.49	18.67	49.51	23.05	44.42
	Inter District	12.79	21.74	0.86	17.93	1.03	44.76	32.14	92.97	14.37	44.04	24.79	56.77	14.02	52.21
	Inter State	35.16	15.30	1.91	11.82	1.58	30.52	8.70	90.37	3.86	45.86	35.28	62.91	13.49	44.33
Idukki	Intra District	6.12	23.76	0.20	22.45	0.36	57.19	20.11	94.75	21.17	44.24	25.75	45.47	26.29	44.62
	Inter District	9.10	20.63	0.34	20.53	0.35	63.49	26.90	94.94	14.55	42.50	34.56	45.48	14.20	47.78
	Inter State	32.22	31.55	0.70	17.72	0.47	47.87	23.47	90.40	9.25	43.26	20.68	52.66	13.22	47.75
Palakkad	Intra District	2.53	23.12	0.22	25.36	0.26	58.10	35.25	95.15	24.15	43.55	11.95	50.47	25.63	46.19
	Inter District	6.91	24.51	0.41	18.37	0.39	54.60	33.42	94.08	25.68	45.62	18.70	51.07	14.49	49.98
	Inter State	15.27	17.59	0.84	13.94	0.63	37.38	26.29	85.25	11.66	43.61	29.18	54.53	16.12	44.50

Table 2 (continued)

District	Migra- tion types	Em- p- loy- ment Total	Em- p- loy- ment Female	Busi- ness Total	Busi- ness Female	Educa- tion Total	Educa- tion Female	Mar- riage Total	Mar- riage Female	Moved after birth Total	Moved after birth Female	Moved with house- hold Total	Moved with house- hold Female	Others Total	Others Female
Thrissur	Intra	1.90	25.60	0.19	24.10	0.31	58.80	33.14	95.39	26.23	42.25	17.30	49.15	20.93	45.21
	Dis- trict														
	Inter	6.79	23.23	0.37	23.07	1.13	54.78	35.38	92.50	19.19	43.42	23.10	51.22	14.04	50.17
	Dis- trict														
	Inter State	25.79	13.53	1.25	11.75	1.17	47.42	12.37	80.96	5.63	44.53	35.17	55.63	18.62	39.10

Among males in the central districts of Kerala (as described in Table 2), more than 80 percent of inter-state migrants stated employment and business as the most common reason for migration, except in Idukki (68.4%). In intra-district and inter-district migration, more than 75 percent of males had stated employment and business as the most common reason for migration. Among females, more than 90 percent said 'marriage' as the most common reason for migration in intra/inter-district and inter-state migrants, except inter-state migrants in Palakkad(85.2%) and Thrissur(81.0%).

In districts of southern Kerala (as described in Table 3), among migrants stating 'employment' as the reason for migration, the highest proportion was among inter-state migrants in Kottayam(31.7%), followed by Kollam (26.2%) and Pathanamthitta (22.5%). In southern districts, among all types of migration, 'education' was stated as a reason for migration by less than two percent of migrants except inter-state migrants in Kottayam (2.4%) and inter-district migrants in Thiruvananthapuram (2.3%). Marriage was the most common reason for migration among intra-district and inter-district migrants in Allappuzha, Kottayam, Pathanamthitta and Kollam. In contrast, in Thiruvananthapuram (30.7%), marriage was the most common reason for migration among inter-state migrants. Nearly 30 percent of inter-state migrants in southern districts stated reason as 'Moved with household/Family', and this proportion was higher than intra/inter-district migration.

Among males in the southern districts of Kerala(as described in Table 3), more than 80 percent of inter-state migrants stated employment and business as the most common reason for migration. In the intra/inter-district migration, more than 75 percent of males had stated 'employment' as the most common reason for migration.

Among females, more than 75 percent stated marriage as the most common reason for migration in intra/inter-district and inter-state migrants, except inter-state migrants in Kollam (69.5%).

Profile of internal migrants and non-migrants in Kerala

In Kerala, out of total migrants of all ages (including migrants whose last residence outside India and excluding 0 to 4 yrs), the proportion of migrants who were literate was 91.6 percent. At the same time, among non-migrants, it was 90 percent. Among total literate migrants in Kerala, 59.6 percent were female. In contrast, among non-migrants, it was only 42 percent. Among all illiterate (all ages) migrants and non-migrants, 63 percent and 61 percent were females, respectively (as described in Table 4).

Among all migrants (excluding 0–4 yrs.), 25.5 percent were main workers in Kerala. Among them, 31.5 percent were females. In all ages, nearly 7 percent were marginal workers among migrants and non-migrants; of them, 54 percent in migrants and 34 percent among residents were females.

Among internal migrants, nearly two-thirds were reported to be 'Non-working', and more than 70 percent were women. In comparison with internal migrants, among non-migrants, only 57 percent reported to be non-working, and the proportion of women among them was ten percent less. Among children aged 5 to 14 years, 0.4 and 0.5 percent of children were main workers among migrants and non-migrants (as described in Table 5).

In Kerala, among the total population (excluding age group 0–9), those currently married constituted 61 percent and never married was 31 percent. Among internal migrants (aged ten and above, with the duration of residence 0 to 9 years in the place of enumeration), currently married was nearly 15 percent more and never married was 10 percent less compared to internal migrants. Widowed, separated, and divorced were almost 4.5 percent

Table 3 Reason and type of migration among migrants – Southern districts

District	Migration types	Employment Total	Employment Female	Business Total	Business Female	Education Total	Education Female	Marriage Total	Marriage Female	Moved after birth Total	Moved after birth Female	Moved with house-hold Total	Moved with house-hold Female	Others Total	Others Female
Alappuzha	Intra District	1.02	27.34	0.14	32.98	0.17	68.53	33.21	91.32	23.71	43.73	11.45	47.78	30.31	45.23
	Inter District	2.60	28.62	0.23	34.12	0.48	60.55	40.97	91.52	26.85	44.16	12.46	52.52	16.41	52.45
Kollam	Inter State	20.68	13.55	1.58	18.31	1.59	38.46	10.04	81.54	6.43	44.22	36.13	56.78	23.55	39.97
	Intra District	1.51	27.77	0.15	32.24	0.28	54.48	33.86	84.17	23.30	45.58	13.12	50.55	27.79	48.80
Kottayam	Inter District	4.11	26.88	0.30	24.68	0.62	53.78	39.01	80.20	22.79	46.27	16.47	53.41	16.71	51.91
	Inter State	24.35	12.24	2.16	17.14	1.43	45.22	16.97	69.48	6.29	46.92	30.29	55.50	18.51	40.08
Kottayam	Intra District	2.54	23.52	0.20	20.90	0.37	59.76	27.58	94.56	28.25	41.87	17.98	47.51	23.09	42.64
	Inter District	5.43	25.35	0.33	21.38	1.07	58.41	37.73	94.11	21.65	43.14	18.90	52.79	14.90	50.85
Kottayam	Inter State	31.67	15.18	1.53	12.00	2.40	45.97	8.99	88.05	6.28	45.43	29.86	57.06	19.27	41.73

Table 3 (continued)

District	Migra- tion types	Em- ploy- ment Total	Em- ploy- ment Female	Busi- ness Total	Busi- ness Female	Educa- tion Total	Educa- tion Female	Mar- riage Total	Mar- riage Female	Moved after birth Total	Moved after birth Female	Moved with house- hold Total	Moved with house- hold Female	Others Total	Others Female
Pathanam- thitta	Intra	1.95	25.69	0.14	33.23	0.25	58.13	32.34	91.99	22.36	44.58	13.03	48.18	29.94	44.34
	Dis- trict														
	Inter	4.14	27.89	0.29	29.92	0.45	45.67	44.39	90.64	20.85	45.39	14.98	52.90	14.90	52.99
	Dis- trict														
Trivan- drum	Inter	22.46	17.41	1.05	18.75	1.63	51.35	8.97	78.98	6.38	43.46	36.22	57.04	23.28	39.22
	State														
	Intra	2.48	27.01	0.20	29.31	0.43	53.33	24.99	73.88	21.24	46.46	16.19	52.46	34.46	49.76
	Dis- trict														
	Inter	15.46	30.43	0.62	25.13	2.35	47.35	28.50	76.64	11.29	47.40	24.31	58.97	17.46	52.07
	Dis- trict														
	Inter	17.37	15.90	1.68	18.58	1.27	38.81	30.73	75.68	5.72	44.52	27.32	59.00	15.90	47.02
	State														

Table 4 Literacy status of internal migrants and non-migrants in different age groups in Kerala

Age-group	Category	Illiterate			Literate		
		Persons	Males	Females	Persons	Males	Females
All age	Migrants	8.37	36.94	63.06	91.63	40.40	59.60
	Non-Migrants	9.94	39.33	60.67	90.06	58.33	41.67
5 to 19	Migrants	14.88	51.03	48.97	85.12	50.36	49.64
	Non-Migrants	14.26	51.17	48.83	85.74	51.64	48.36
20 to 34	Migrants	1.31	42.51	57.49	98.69	36.67	63.33
	Non-Migrants	1.69	46.30	53.70	98.31	59.89	40.11
35 to 49	Migrants	3.84	28.19	71.81	96.16	34.02	65.98
	Non-Migrants	5.11	37.62	62.38	94.89	61.12	38.88
50 to 64	Migrants	9.11	22.96	77.04	90.89	41.00	59.00
	Non-Migrants	11.96	32.90	67.10	88.04	61.59	38.41
65 to 79	Migrants	19.67	19.37	80.63	80.33	41.73	58.27
	Non-Migrants	25.08	29.59	70.41	74.92	58.23	41.77
80 +	Migrants	26.67	17.07	82.93	73.33	37.11	62.89
	Non-Migrants	34.05	25.52	74.48	65.95	51.86	48.14
Age NS	Migrants	21.57	45.79	54.21	78.43	42.53	57.47
	Non-Migrants	17.55	44.70	55.30	82.45	57.71	42.29

among all migrants, while a two-fold increase was observed among the total population (as described in Table 6).

The proportion of females currently married in the total population was 53 percent, while among internal migrants, nearly a 20 percent increase was observed. Among migrants and non-migrants, the proportion of currently married females was roughly the same. The proportion of female migrants among widowed, separated, and divorced was identical to that in the entire population, i.e. 90 percent, 80 percent, and 82 percent, respectively.

Discussion

The study's objectives were to describe the mobility into Kerala state by examining the inter-state and intra/inter-district migration streams, identifying the reasons for migration across the districts of Kerala and describe the migrants in terms of their characteristics, including marital status, literacy and employment, using the data from the 2011 Census of India.

Internal and interstate migration in Kerala

In Kerala, half of the population is reported to be migrants by place of last residence criteria. A substantial proportion of these were intra-district or inter-district migrants. The significant stream of internal migration in Kerala was identified as rural-to-rural areas, but among inter-state migrants the dominant stream was urban to urban migration. The urban-to-urban migration among inter-state migrants in Kerala was nearly double that of

Table 5 Employment status of internal migrants and non-migrants in different age groups in Kerala

Age-group	Category	Main workers				Marginal workers				Non-workers					
		Person		Females		Persons		Males		Persons		Males		Females	
		Person	Males	Females	Persons	Males	Females	Persons	Males	Persons	Males	Females			
All	Migrants	25.51	68.45	31.55	7.11	45.66	54.34	67.38	28.79	71.21					
	Non-Migrants	35.40	83.92	16.08	7.72	65.90	34.10	56.88	38.04	61.96					
5 to 14	Migrants	0.37	59.36	40.64	0.46	50.44	49.56	99.17	50.79	49.21					
	Non-Migrants	0.45	65.77	34.23	0.41	54.04	45.96	99.14	51.12	48.88					
15 to 24	Migrants	12.92	76.66	23.34	5.41	62.27	37.73	81.67	39.83	60.17					
	Non-Migrants	17.34	83.46	16.54	5.92	71.70	28.30	76.74	46.77	53.23					
25 to 34	Migrants	36.56	69.93	30.07	9.50	46.70	53.30	53.94	7.26	92.74					
	Non-Migrants	54.45	86.25	13.75	11.04	70.45	29.55	34.51	18.41	81.59					
35 to 49	Migrants	44.35	62.99	37.01	11.22	35.99	64.01	44.42	4.09	95.91					
	Non-Migrants	60.56	82.37	17.63	11.31	60.78	39.22	28.13	11.24	88.76					
50 to 69	Migrants	32.81	72.63	27.37	8.94	48.83	51.17	58.26	18.92	81.08					
	Non-Migrants	41.74	84.32	15.68	9.61	65.61	34.39	48.65	32.40	67.60					
70 plus	Migrants	8.95	78.77	21.23	3.23	60.69	39.31	87.82	29.60	70.40					
	Non-Migrants	10.34	87.01	12.99	3.40	73.88	26.12	86.26	41.78	58.22					
Age NS	Migrants	20.59	65.62	34.38	6.19	47.67	52.33	73.22	36.56	63.44					
	Non-Migrants	21.29	78.22	21.78	5.05	63.90	36.10	73.66	48.26	51.74					

Table 6 Marital status of internal migrants and non-migrants in different age groups in Kerala

Age Group	Category	Never married		Currently married		Widowed		Separated		Divorced	
		Person	Female	Person	Female	Person	Female	Person	Female	Person	Female
All ages	Total	30.55	40.95	60.62	53.06	7.85	90.25	0.78	79.43	0.20	82.66
	Migrants	20.86	42.65	74.76	72.03	3.74	90.10	0.50	80.41	0.13	82.09
10–19-	Total	96.06	47.51	3.83	87.45	0.06	78.12	0.04	61.73	0.01	83.72
	Migrants	86.47	47.21	13.44	96.38	0.05	79.51	0.04	72.57	0.01	83.33
20–29	Total	50.07	27.87	49.13	77.04	0.31	87.66	0.36	85.73	0.13	91.65
	Migrants	15.33	29.06	84.20	93.28	0.24	94.68	0.17	90.80	0.06	95.16
30–39	Total	8.99	25.49	88.17	56.49	1.43	90.51	1.09	79.35	0.32	81.55
	Migrants	3.96	32.27	94.29	68.36	0.92	91.80	0.63	84.27	0.19	84.49
40–49	Total	3.04	53.08	90.59	50.75	4.61	93.59	1.42	79.93	0.34	80.78
	Migrants	2.84	59.17	92.18	46.26	3.48	93.55	1.19	81.01	0.30	78.64
50–59	Total	2.50	66.30	84.60	44.51	11.38	93.39	1.25	80.14	0.27	82.44
	Migrants	3.20	68.22	84.73	40.88	10.53	92.86	1.26	77.12	0.28	77.70
60–69	Total	2.52	70.00	70.95	37.47	25.44	92.16	0.90	77.11	0.19	81.19
	Migrants	4.99	74.51	69.80	33.88	23.97	90.70	1.04	69.03	0.21	66.99
70–79	Total	2.70	70.33	52.76	29.04	43.82	88.86	0.59	70.93	0.13	81.28
	Migrants	7.74	74.33	45.67	29.47	45.61	88.02	0.81	56.58	0.17	68.18
80+	Total	3.03	65.87	33.50	22.48	62.98	83.23	0.38	66.67	0.12	79.02
	Migrants	7.39	66.96	28.07	31.19	63.84	84.01	0.56	52.73	0.13	69.23
Age NS	Total	53.89	40.22	37.67	55.68	7.56	87.26	0.68	64.68	0.20	79.71
	Migrants	58.53	47.15	37.75	75.36	3.23	87.37	0.41	75.00	0.09	60.00

urban-to-urban migration among internal migrants in Kerala. The above differences could be due to social and economic changes in Kerala, where the divide between urban and rural places has narrowed, i.e. there is an urban–rural continuum (Government of Kerala 2012). The preferred urban-urban migration among interstate migrants may be due to the step-by-step migration wherein migrants first migrate from small villages to large cities nearby and then migrate to cities with better wages, employment and broader social networks, whether near or far.

Contrary to composition of internal migration, the female share was less when compared to males among inter-state migrants in Kerala. This could be because of the preference among males to take up long-distance migration for employment/job (Kumar 2020).

Inter-state migration into Kerala and its distribution across the districts of Kerala

As per Census 2011a, b, substantial proportion of inter-state in-migrants were from Tamil Nadu and Karnataka due to their proximity to Kerala. Interestingly, among the top four districts, Ernakulam received the highest proportion of migrants compared to the other three border districts, where the likelihood of inter-state migration is higher due to the proximity of the border. This trend may be attributed to the rapid urbanization of the district and other favourable pull factors within the district (Government of Kerala 2012).

The highest inflow of migrants in the southern districts was from Tamil Nadu, followed by Maharashtra. This trend was unique to southern districts, while in northern and central districts, the majority of the inter-state migrants were from Karnataka and Tamil Nadu, respectively. The districts of Kannur and Kozhikode had a significant proportion of inter-state migrants from Puducherry, probably influenced by Mahe, a Union Territory of Puducherry. In Kottayam, inter-state migrants from West Bengal were second only to Tamil Nadu. Among states in the north and north eastern parts of India, i.e. West Bengal, Odisha, UP, Bihar and Assam, contributed more male migrants. The difference in the proportion of migration between males and females increased 2 to threefold as the distance increased.

Inter-state migration into Kerala and duration of stay in districts of Kerala

Inter-state migrants from West Bengal, Odisha and Assam made a substantial contribution (80%) to inter-state migrants in the past ten years, while neighbouring and southern states had the largest proportion of migrants with the duration of residence more than ten years. This trend clarifies that the residents' apprehension about north and north eastern migrant streams is mainly due to their relatively new and unfamiliar presence compared to southern states' migrants who are not as visible. It was also interesting to note that one-third of inter-state migrants from north eastern states (Sikkim, Nagaland, Mizoram, Arunachal Pradesh, Tripura and Meghalaya) stated duration of stay as more than ten years. Still, their contribution to the inter-state migrant population as whole to districts in Kerala is minimal (less than 500 persons in each district).

A twenty percent reduction was observed among short duration migrants from Tamil Nadu and Karnataka when compared to long-duration inter-state migrants from these states. This reduction from neighbouring states may be attributed to increased job opportunities and disinclination of the younger generation to take up labour intensive jobs due to better educational status (Peter and Narendran 2017). This void created was compensated by long-distance migrants from West Bengal, Odisha, Bihar and Assam.

In districts of Kerala, among inter-state migrants, only one third reported having migrated in the past ten years. In the northern districts, Kannur and Kozhikode, half of the inter-state migrants were from Puducherry residing for more than ten years. In Kasaragod, inter-state migrants living for more than ten years were most frequently from Karnataka. In Kannur and Kozhikode, high proportion could be attributed to the presence of Mahe and in Kasaragod due to its proximity to Karnataka.

In Ernakulam district, two-third of all inter-state migrants from prominent states reported duration of stay less than ten years except for Gujarat and Tamil Nadu. It's no wonder that Ernakulam houses a Cochin Gujarati school celebrating its centenary anniversary (Deccan Chronicle 2019). In Idukki, inter-state migrants from Assam (94%), followed by West Bengal (89.0%), had the highest proportion of inter-state migrants with the duration of stay less than ten years. The above states and Idukki district are famous for tea and other plantations. These plantations were dominated by the migrants from Tamil Nadu and Karnataka, but now with the newer generation reluctant to take up work in plantations, the labour shortage created is filled by the inter-state migrants (Peter and Narendran 2017). In Kollam, Alappuzha and Thiruvananthapuram, the presence of inter-state migrants from Jammu & Kashmir was unique. Among them, the duration of stay was not stated by one third in Alappuzha and Thiruvananthapuram and two thirds in Kollam. Hesitancy among them in reporting 'duration of stay' may be attributed to the insecurity among migrants from Jammu & Kashmir.

Reasons for migration among internal migrants and interstate migrants in Kerala

The most common reason for internal migration was 'marriage' in Kerala. Among internal migrants, the most common reason for migration among males was 'moved after birth', and for female migrants, it was 'marriage'. The most common reason for inter-state migration in Kerala is 'moved with household/family'. Among inter-state migrants, the most common reason for migration among males was 'work/employment'. Among female migrants, it was 'moved with household', which was different from the internal migration trends. The above trends point towards the urgent need for strengthening maternal and child health care services targeting migrant females and children who remain unnoticed when the focus is on single male migrants. Unlike inter-district and intra-district migration, inter-state migration cuts women from their known social resources and throws them into the potentially hostile environment in Kerala (Palriwala and Uberoi 2008). Among inter-state migrants, the proportion stating 'work/employment' increased sixfold compared to internal migrants. The male migrant's preference or willingness to take up long-distance migration for employment/job may be attributed to the increase.

In all districts, migrants stating 'employment/job' as the most common reason for migration were among inter-state migrants in Malappuram, Ernakulam, Idukki and Kottayam and may be attributed to the presence of sizeable inter-state migrant agglomerations in these districts. Marriage was the most common reason for migration among inter-state migrants in the border districts of Kasaragod and Thiruvananthapuram. In all districts, migrants stating 'moved with household/family' was the most common reason for migration among inter-state migrants in Wayanad, Thrissur, Ernakulam, Alappuzha, Pathanamthitta and Kollam. As stated earlier, it is crucial to identify the districts and migrant pockets to effectively cater for the needs of migrants, mainly migrant women and children.

Among internal male migrants in Kerala districts, two-thirds of inter-state and intra/inter-district migrants stated 'employment' or 'business' as the most common reasons for

migration. Among internal female migrants in districts of Kerala, three fourth reported 'marriage' as the most common reason for migration among all types of migration, except inter-state migrants in Kollam. Except for Kasargod, all other districts had female inter-state migrants reporting 'marriage' as the reason for migration less than intra or inter-district migrants.

Profile of internal migrants

Literacy

The proportion of literate migrants in Kerala was nearly similar to non-migrants. Among all migrants in Kerala (excluding 0–4 age), 60 percent of females were literate, while a 20 percent reduction in males was observed. Among non-migrants, nearly 59 percent of males were literate compared to 42 percent of females. High literacy rates in Kerala and substantial proportion of migrants being intra- district and inter-district have contributed to the difference in literacy status among males and females.

Employment

There was a higher proportion of 'main workers' among female migrants (about 15 percent more) when compared to non-migrants. Among 'main workers' female migrants were 15 percent higher when compared to non-migrant females. Among migrants in Kerala, two-third of migrants reported being 'non-working' while among non-migrants, nearly half reported to be 'non-working' is of great concern. Among non-working migrants in Kerala, nearly 71 percent were females compared to 62 percent among non-migrants. As stated above, 'marriage' explains why substantial proportion of females reported 'non-working' among migrants in Kerala. It will benefit the Kerala economy if the 'non-working' migrant female proportion is reduced, reducing job seekers among non-workers.

Marital status

Among migrants, three-fourths were 'currently married', and around 20 percent were never married. Widowed, separated and divorced migrants were nearly five percent among migrants in Kerala, while it was 8 percent among the total population. The extent of widowed, separated and divorced migrants is less when compared to what is seen in the total. Still, it is an area of concern where both males and females may experience high anxiety, stress and depression during this period (Kumar and Pramod 2016). Among migrants and in the total population, women never married was nearly 40 percent. Given that 'marriage' is the expressly stated reason for female internal migration and 'moved with household' for female inter-state migration, the higher proportion of currently married women among migrants is not surprising.

Conclusions and policy implications

This analysis is not without limitations. We have used the Census data which is rather dated in terms of the current levels of migration and its ability to capture this effectively. The study is focused entirely on in-migration and does not include out migration from Kerala.

A comparison of the sub-group of inter-state migrants independent of all internal migrants was not possible, as the data does not enable such disaggregation. With all these caveats, the analysis offers some insights into the patterns of inter-state migration into Kerala, considering the districts where it dominates, its possible duration and the latent needs of migrants that it throws up. These patterns need to be identified and provisioning be made for state welfare policies to be migrant inclusive (Peter et al. 2020).

As a majority of the inter-state male migrants and a significant percentage of female migrants have entered the state for employment and as followers of their households respectively, provisioning to integrate them into the state's economy is a necessity. This calls for interventions that go beyond providing health insurance for workers. A migrant inclusive welfare policy needs to rest on the bedrock of valid estimates of inter-state migrants who need special provisioning. Periodic collection and interpretation of existing data on migration using Census, NSSO and NFHS and updated registries among local self-governments would help collect data on migrants, and this in turn would help to understand the volume and patterns of migration. The growing trend of migrants from north and north eastern states must be noted while implementing inclusive migrant welfare programs as they come with added layers of vulnerabilities.

In Kerala, the main focus is on single male migrants, but as per this analysis, among female inter-state migrants, the most common reason for migration is 'moved with household'. This trend would eventually bring migrant females and children, but this component goes unnoticed. Their welfare too is equally important that calls for proactive measures in place to address family needs than individual ones. Separate estimates of inter-state migrants were not available. Nevertheless, the proportion of internal female migrants in Kerala, among widowed, separated and divorced, was equally high in contrast with the entire population. This group is at increased risk of depression and anxiety. Effective measures and coping mechanisms need to be developed. Two-thirds of internal migrants were reported to be non-working which were predominantly females. Hence, appropriate programmes for engagement of this group in remunerative activity need to be in place which not only will improve their welfare but also benefit the economy as a whole.

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Declarations

Conflicts of interest The authors declare that none of them have any conflicts of interest with respect to this paper.

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