

OUT-MIGRATION FROM KAMPUNG AWAH A SETTLEMENT SCHEME IN JENGKA

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Sinopsis

Masalah generasi kedua di rancangan FELDA sejak akhir-akhir ini telah menarik perhatian umum. Ini memandangkan rancangan pembangunan tanah FELDA telah menjangkau usia lebih dua dekad dan anak-anak peneroka FELDA di penempatan yang awal kebanyakannya telah menjadi dewasa. Kajian ini menumpukan terhadap pola dan ciri-ciri migrasi keluar penduduk di rancangan FELDA terutamanya di kalangan generasi kedua. Ia berasaskan kajian kes penempatan FELDA kampung Awah di Jengka, Pahang. Kajian menampakkan trend migrasi keluar yang meningkat di penempatan tersebut terutamanya setelah 15 tahun kemasukan peneroka. Ciri-ciri penghijrah juga dianalisa mengikut destinasi bandar dan luar bandar. Migrasi keluar ini di jangka memberi kesan negatif kepada pembangunan wilayah Jengka sekiranya tidak ada usaha untuk menyekat pengaliran keluar penduduk.

Introduction

This paper will examine the characteristics of out-migrants from a specific land settlement scheme in a frontier region and speculate on the potential of out-migration from such areas in the future. This will then be compared to the observation of Gosling (1985:90) that "... the second generation from FELDA schemes will be urban migrants, and FELDA schemes can be seen as a way station, a stage along the way to the city, serving the same intermediate role in step migration as is often served by smaller centers."

Study data is obtained from a sample survey carried out in Kampung Awah a FELDA scheme in Jengka, the pioneer frontier development region. Interviews were conducted in 111 households, about 33 per cent of the total of 334 households in the settlement. The head of the household or the eldest person present during the time of the survey was interviewed. Questions were asked on the present characteristics (such as age, sex, marital status and educational level) of the head of the household, other members present in the household and all individuals who had migrated. Additional questions about those who had migrated were also asked, such as place of destination and year of migrating. Migrants here includes those who were previously residing inside the settlement scheme but who were residing outside the settlement scheme at the time of the survey. The survey was carried out in February 1986.

The first part of this paper will describe the background of Kampung Awah, and some characteristics of population in the scheme. The second part will discuss out-migration from Kampung Awah. The third part will deal with conclusions.

Background of Kampung Awah

The Kampung Awah scheme began in 1960 and was developed in three stages. The main crop is rubber with some oil palm. The entry of settlers to the scheme was also in three stages: stage one in 1961 with 127 settlers, stage two in 1962 with 133 settlers, and stage three in 1967 with another 74 settlers. By the end of 1967 there were 334 settlers altogether. The settlement is located in JENGKA and not far away from the highway which joins Kuantan (the state capital) and Kuala Lumpur (Fig. 1). Due to this position, it is considered to have very good access to nearby towns along the highway such as Temerloh and Maran, as well as Kuantan and Kuala Lumpur. The approximate time to travel by car from Kampung Awah to Kuala Lumpur is 3 hours and to Kuantan around 2.5 hours. The settlement is self-contained in terms of facilities, with primary and secondary schools, community facilities, infrastructure and communications. It forms a small town with something of an urban atmosphere in a rural area. The

choice of Kampung Awah in this study was based on several factors: it is one of the oldest schemes which has passed through several periods of development and experienced substantial out-migration of the second generation: it is located in JENGA which is the subject of this study, and the size and facilities available are comparable to most of the schemes in the region. This study could represent other schemes in the region which have similar characteristics.

Population

In 1976, the settler population of Kampung Awah was 1862 and decreased slightly to 1806 in 1986. All of these were Malays and the average household size was 5.4 people. By assuming that the average rate of natural increase of the population was 3 per cent during the last decade (based on the natural increase of Malays in Pahang), the average net out-migration rate of Kampung Awah was about 3 per cent.

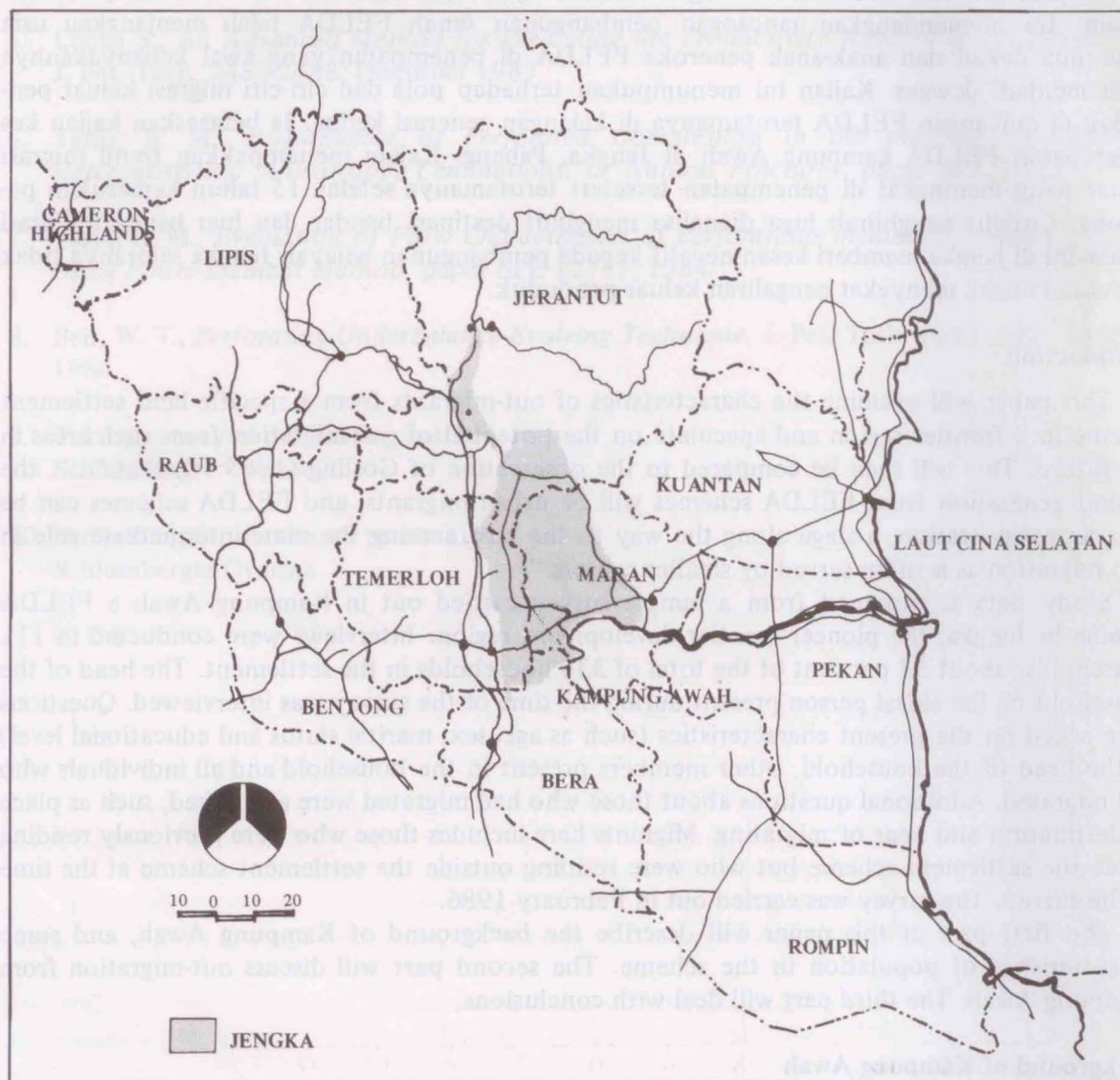


Figure 1 Location Map of Kampung Awah

The population of Kampung Awah consisted mainly of settlers and their spouses, children and grand-children (Table 1). There were a number of households in which married children stayed with their parents in the settlement.

Table 1 Population Composition According to Settlers
Kinship, Kampung Awah 1986

Kinship	Number	Per cent
Settlers	111	18.4
Spouses	98	16.3
Children	327	54.3
Grand-Children	44	7.3
Nephew	2	0.3
Mothers	2	0.3
Sons/Daughters-in-Law	11	1.8
Others	2	0.3
Total	602	100.0

Source: Kampung Awah Migration Survey 1986.

Age Structure

The age structure of settler population in Kampung Awah is shown in Figure 2. The

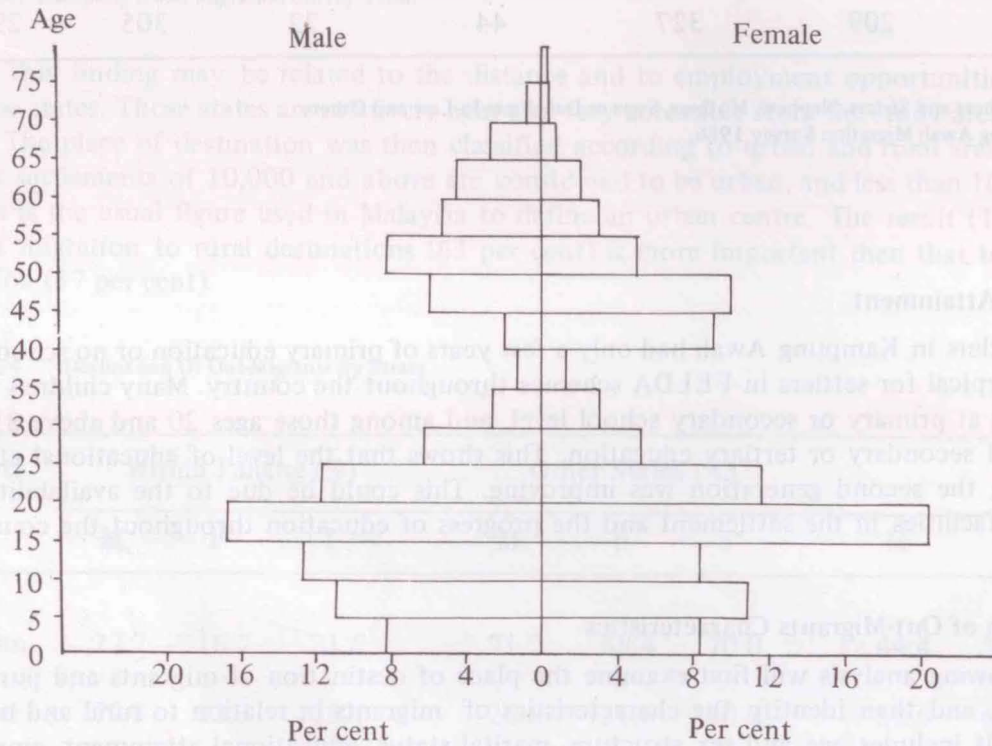


Figure 2 Age structure of Settler's Population Kampung Awah 1986
Source: Kampung Awah Migration Survey 1986.

population was concentrated in ages 5-24 and 40-54, with the modal class lying between ages 15-19. The figures indicated a decreasing number of children aged 0-5 in the settlement, and the population diminished rapidly after age 20. This suggests that substantial amount of out-migration occurred at ages 20 and above and also among women of child-bearing ages. The population in the older ages was mainly settlers and their spouses, while the younger ages were settlers' children and grand-children (Table 2).

Table 2 Age Structure Of Settler's Population, Kampung Awah 1986

Age Group	Settlers/ Spouses (%)	Children (%)	Grand- Children (%)	Others* (%)	Total (%)	
					Male	Female
0-4	—	9.5	36.4	9.1	8.2	8.1
5-9	—	16.2	25.0	—	10.5	10.8
10-14	—	15.9	25.0	—	12.8	8.1
15-19	0.9	31.8	6.8	18.2	17.0	20.5
20-24	1.9	16.8	2.3	50.0	11.8	11.8
25-29	4.3	7.0	4.5	9.1	6.2	5.7
30-34	5.3	1.5	—	4.5	2.6	3.0
35-39	3.3	0.3	—	—	1.6	1.0
40-44	14.4	0.9	—	4.5	2.0	9.4
45-49	23.0	—	—	—	5.9	10.1
50-54	19.1	—	—	—	8.2	5.1
55-59	12.0	—	—	—	5.2	3.0
60-64	9.6	—	—	—	4.6	2.0
65-69	4.8	—	—	—	2.6	0.7
70-74	1.4	—	—	—	0.7	0.3
75+	—	—	—	4.5	—	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	209	327	44	22	305	297

* Includes Brothers and Sisters, Nephew, Mothers, Sons or Daughters-In-Law and Others.
Source: Kampung Awah Migration Survey 1986.

Educational Attainment

Most settlers in Kampung Awah had only a few years of primary education or no schooling, which was typical for settlers in FELDA schemes throughout the country. Many children were still studying at primary or secondary school level, and among those ages 20 and above 81 per cent attained secondary or tertiary education. This shows that the level of educational attainment among the second generation was improving. This could be due to the availability of educational facilities in the settlement and the progress of education throughout the country.

Identification of Out-Migrants Characteristics

The following analysis will first examine the place of destination of migrants and purpose of migration, and then identify the characteristics of migrants in relation to rural and urban destination. It includes age and sex structure, marital status, educational attainment, employment, frequency of return and remittance. These factors will provide information on potential rural or urban migrants from Kampung Awah.

a) Destination

The survey found that out-migration from the settlement scheme tended to be over short distances. A quarter of migrants moved within JENGA, and about 40 per cent migrated to other part of Pahang. This means that intra-state migration accounted for 65 per cent of the out-migration from the settlement scheme. Migration to other states was mainly to Federal Territory (Kuala Lumpur), Selangor and Perak (Table 3).

Table 3 Place Of Destination Of Out-Migrants By Sex, Kampung Awah, 1986

Place of Destination	Male		Female		Total	
	Number	(%)	Number	(%)	Number	(%)
JENGA Region	30	20.8	41	28.7	71	24.7
Pahang	55	38.2	61	42.7	116	40.4
Johor	9	6.3	2	1.4	11	3.8
Kedah	5	3.5	4	2.8	9	3.1
Kelantan	2	1.4	—	—	2	0.7
Melaka	3	2.1	—	—	3	1.0
Negeri Sembilan	3	2.1	4	2.8	7	2.4
Pulau Pinang	2	1.4	4	2.8	6	2.1
Perak	10	6.9	4	2.8	14	4.9
Selangor	8	5.6	6	4.2	14	4.9
Terengganu	3	2.1	3	2.1	6	2.1
Federal Territory	9	6.3	13	9.1	22	7.7
Sabah	1	0.7	1	0.7	2	0.7
Sarawak	2	1.4	—	—	2	0.7
Others	2	1.4	—	—	2	0.7
Total	144	100.0	143	100.0	287	100.0

Source: Kampung Awah Migration Survey 1986.

This finding may be related to the distance and to employment opportunities available in those states. Those states are relatively near and very accessible from the study area.

The place of destination was then classified according to urban and rural areas on the basis that settlements of 10,000 and above are considered to be urban, and less than 10,000 as rural. This is the usual figure used in Malaysia to define an urban centre. The result (Table 4) shows that migration to rural destinations (63 per cent) is more important than that to urban destination (37 per cent).

Table 4 Destination Of Out-Migrants By Strata

Strata	Within Pahang (%)			Other States (%)			Total		
	M	F	T	M	F	T	M	F	T
Urban	27.7	16.7	21.6	71.2	68.4	70.0	44.4	30.7	37.5
Rural	72.3	83.3	78.4	28.8	31.6	30.0	55.6	69.3	62.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	83	102	185	52	38	90	135	140	275*

* 12 missing cases

M male

F female

T total

Source: Kampung Awah Migration Survey 1986.

However, a higher proportion of males migrated to urban areas (44 per cent) compared to females (31 per cent). In fact, migration to urban areas was predominately male, while females tended to dominate the stream to rural areas. It was also found that most intra-state migration (78 per cent) was to rural destinations while migration to other states tended to be to urban destinations (70 per cent). This could be due to the fact that development activities in Pahang during the last decade were concentrated in rural areas, especially in JENGA and DARA.

b) Reason for migration

Several distinct reasons were given for migration from the settlement scheme. Firstly, migration of males was mainly for job related reasons, that is "to take up a job offer" or "to join other rural development projects". Educational reasons were also important, especially for younger migrants who tended to seek further education elsewhere in urban areas. Female migration was mainly for marriage or "to take up a job offer". Educational reasons seemed to be less important for females compared to males (Table 5).

Table 5 Reasons For Out-Migration, Kampung Awah 1986

Reasons	Male (%)		Female (%)	
	Urban	Rural	Urban	Rural
On Work Transfer	—	1.3	—	—
To Look For Job	—	1.3	—	—
To Start Job Offer	66.7	53.3	41.9	13.4
Rural Development Project	—	36.0	—	—
Education	28.3	5.3	9.3	1.0
Marriage*	—	—	48.8	83.5
Others	5.0	2.7	—	2.1
Total	100.0	100.0	100.0	100.0
Number **	60	75	43	97

* Includes following husband

** 12 missing cases

Source: Kampung Awah Migration Survey 1986.

The cross-tabulation of purpose of migration by type of destination indicated that to *join other rural development projects* and marriage were more important reasons for out-migration to rural areas. Educational reasons were more important for urban destinations, and *to take up a job offer* was important for both rural and urban destinations. The reason for this pattern could be the extensive development of land settlement schemes in rural areas within Pahang state that provide plenty of opportunities for migrants in rural areas. Second, the children of settlers tend to marry other settlers' children. Migration associated with these two factors is mainly within rural areas. On the other hand, facilities for higher education are mainly located in urban areas so those who seek further education migrate to urban areas. Employment opportunities in urban areas are also growing and thus *taking up a job offer* is also an important reason for migration to urban areas.

c) Age and sex

The age of the migrants referred to here is the age at the time of out-migration. It was obtained from the information on present age and the year when their migration from the settlement took place. The distribution of ages at the time of out-migration is shown in Table 6.

Table 6 Age Of Out Migrants By Sex, Kampung Awah 1986

Age	Urban (%)			Rural (%)		
	Male	Female	Total	Male	Female	Total
0-4	—	—	—	1.3	—	0.6
5-9	—	—	—	—	—	—
10-14	10.0	7.0	8.8	2.7	3.1	2.9
15-19	40.0	27.9	35.0	21.3	27.8	25.0
20-24	40.0	55.8	46.6	40.0	46.4	43.6
25-29	10.0	9.3	9.7	22.7	14.4	18.0
30-34	—	—	—	10.7	4.1	7.0
35-39	—	—	—	—	2.1	1.2
40+	—	—	—	1.3	2.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number**	60	43	103	75	97	172

* age at the time of migration

** 12 missing cases

Source: Kampung Awah Migration Survey 1986.

Most of those who moved away did so between ages 15 and 29 years, with the mode lying between ages 20 and 24 years for both males and females. This youthful characteristic is typical of most migrants in Asian countries, where the modal age group is often 20-24 years (Pryor, 1979:323). The study by Blaire and Noor (1980) of the changing of rural life-styles in settlement schemes also parallels this finding. Their analysis of age distribution of settlers' children in settlement schemes indicated that the number of settlers' children residing on the settlement diminished rapidly after age 20. They found that more than 91 per cent of male settlers' children aged 25 and above more than 75 per cent of female settlers' children aged 25 and above had migrated out.

The survey data show that the total number of male and female migrants was almost the same (Table 6), indicating that there was no significant sex differential for out-migration from this settlement scheme. There were some variations in the age-specific sex ratio of migrants, with more females moving out at ages 20-24 and more males at ages 25-29.

When comparing age of out-migrants by rural and urban destination, it is apparent that out-migrants to rural areas tended to be older, although the modal age was similar (20-24). Only 10 per cent of migration to urban areas occurred at age 25 and above while the comparable figure for migration to rural areas was more than 22 per cent. It is also observed that the sex ratio (males per 100 females) of urban migrants was higher (140) compared to that of rural migrants (77). Thus migrants to urban areas tended to be male, while females tended to migrate within rural areas and over shorter distances than males.

d) Marital Status

Pryor (1979), in an analysis of marital status of internal migrants in Peninsular Malaysia, found that migrants tended to be single, especially, those aged 20-24. This is particularly true for migrants to Kuala Lumpur and nearby urban areas in Klang Valley. Young Malay women who have recently moved to cities were mostly single. In rural areas, however, migrants, particularly women, tended to be married (ESCAP, 1982). The marital status of out-migrants in this survey also reflects this characteristic of migrants to rural areas, as 73 per cent and 93 per cent of male and female migrants respectively were married. Female out-migrants to urban areas also tended to be married but the percentage was slightly lower that is 63 per cent (Table 7).

Table 7 Marital Status of Out-migrants, Kampung Awah 1986

Marital Status	Male (%)		Female (%)		Total (%)	
	Urban	Rural	Urban	Rural	Male	Female
Single	66.7	26.7	37.2	7.2	44.4	16.4
Married	33.3	73.3	62.8	92.8	55.6	83.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number*	60	75	43	97	135	140

* 12 missing cases

Source: Kampung Awah Migration Survey 1986.

The greater proportion of married female migrants is related to marriage as a reason for migration, as mentioned before. In Malay society it is the norm that the wife moves to the husband's house a few days after marriage, so the marriage related movement of females is apparent.

However male out-migrants to urban areas tended to be single (67 per cent), with most were single during the time of migration, as male migrants normally married after getting a job and 60 per cent had migrated to take up a job. However, those who migrated to become settlers in other settlement schemes most probably were married at the time of migration, since single persons were not eligible to become settlers.

From the above analysis, it seems that out-migrants who move to rural areas tend to be married while out-migrants to urban areas, particularly males, tend to be single.

e) Educational Attainment

A number of studies which relate migration to education in Peninsular Malaysia and South-east Asia have generally indicated the following.

1. The propensity to migrate increases directly with schooling, and recent migrants tend to be more highly educated than early migrants (Pryor, 1979:325).
2. Migrants tend to be more educated than non-migrants and male migrants are better educated than female migrants (ESCAP, 1982; Pryor 1975:136).
3. Migrants to urban areas are better educated than those to rural areas (ESCAP, 1982; Chan cited in Cosling, 1983).

The survey data indicate that the level of educational attainment of out-migrant settlers' children was higher than that of the non-migrant settlers' children aged 25 and over. The proportions with secondary and tertiary educational attainment were 62 per cent and 42 per cent for out-migrants and non-mover settlers' children respectively (Table 8).

In terms of educational attainment by sex, the overall figures indicated that male migrants were better educated than female migrants, with the proportion of males with secondary and tertiary education (69 per cent) being greater than that of females (54 per cent). The level of educational attainment of out-migrants to urban areas tended to be higher than that of those to rural areas. About 67 per cent of out-migrants to urban areas attained secondary and tertiary education levels compared to 59 per cent of those moving to rural areas.

This observation is in fact parallel to the finding of ESCAP (1982) mentioned above, that migrants tend to be more educated than non-migrants. Male migrants were better educated than female migrants and migrants to urban areas were better educated than those to rural areas.

Table 8 Educational, Attainment Of Out-Migrants And Non-Migrant Settlers' Children, Age 25 And Above,
Kampung Awah 1986

Educational Attainment	Migrants (%)			Non-Migrants (%)	Migrants (%)	
	Male	Female	Total	Total	Urban	Rural
No-Schooling	2.2	—	1.1	—	2.0	0.8
Primary Education	28.3	46.2	37.2	57.9	31.3	40.0
Secondary Education	63.0	52.7	57.9	42.1	58.3	56.9
Tertiary Education*	6.5	1.1	3.8	—	8.3	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	92	91	183	19	48	130

* College, university and other post-secondary education.

Source: Kampung Awah Migration Survey 1986.

f) Employment

Pryor (1975:137) has noted that . . . in Peninsular Malaysia migrants tend to be in service occupations or labouring, with professional, technical, and clerical occupations important in Selangor. Agricultural occupations are only significantly associated with mobility within rural areas and have declined in importance over time.

In this study, 78 per cent of females were stated as being not employed and the percentage was higher amongst those who migrated to rural areas (87 per cent). This is closely associated with migration due to marriage. Those women who were employed worked in the service and industrial sectors, especially migrants to urban areas. For male migrants occupations tended to be concentrated in two main sectors, agriculture and services (Table 9).

Table 9 Employment Of Out-Migrants By Sex, Kampung Awah 1986

Employment	Male (%)		Female (%)	
	Urban	Rural	Urban	Rural
Agriculture	1.7	46.6	—	—
Manufacturing	1.7	6.8	9.5	—
Electricity, Gas, Water	—	2.7	—	—
Construction	1.7	1.4	—	—
Wholesale, Retail	5.2	4.1	—	—
Transportation	6.9	5.5	2.4	—
Finance	5.2	1.4	—	—
Service	44.8	26.0	31.0	13.4
Not employed	32.8	5.5	57.1	86.6
Total	100.0	100.0	100.0	100.0
Number*	58	73	42	97

* 17 missing cases

Source: Kampung Awah Migration Survey 1986.

The survey indicates that those in the agricultural sector were mainly settlers in FELDA schemes in rural areas in Pahang. The services sector included clerical workers, police, military personnel and teachers. There were more male migrants engaged in the services sector in urban areas (45 per cent) compared to rural male migrants (26 per cent). The percentage of male migrants not employed in urban areas was also high (33 per cent). This could be related to migration due to educational purposes. This finding is, in fact, comparable to the finding of Pryor mentioned above.

g) Migrants' Return Visits

Most out-migration from this settlement scheme seems to be permanent, except for some cases, such as migration for educational purposes, when some (10 per cent) migrants normally return home during school holidays or after finishing studies. But after a period of time, when a job is offered to those who have finished studies, they migrate permanently. The term "return visit" in this context is not similar to circular migration, since migrants return to the home village only to visit their parents. The frequency of return varies depending on the distance from the place of migration to the settlement scheme. Generally the shorter the distance, the more frequent the return to the parents' home. Table 10 shows the frequency of return to Kampung year by urban and rural place of destination. Migrants in urban areas tended to return less frequently than migrants in rural areas. More than 50 per cent of urban migrants returned less than five times per year compared to 34 per cent in rural areas. Only 19 per cent of urban migrants return more than 12 times per year compared to 37 per cent for rural migrants. This could be related to distance since most urban migrants were longer distance migrants. Normally those who stayed in JENGKA visited most frequently and spent around one or two hours with their parents having a cup of coffee. Long distance migrants visited mainly during festivals such as Hari Raya (the Muslim celebration of the end of the fasting month) or when parents, relatives or close neighbours organised a marriage ceremony (Kenduri). They normally stayed with their parent for few days and then returned home. This study did not find any significant differences in return visits between males and females.

Table 10 Frequency Of Return To Kampung Awah

Frequency (per year)	Urban (%)			Rural (%)		
	M	F	T	M	F	T
1-4	56.7	44.2	51.5	32.0	36.1	34.3
5-12	25.0	37.2	30.1	30.7	26.8	28.5
13+	18.3	18.6	18.4	37.3	37.1	37.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number*	60	43	103	75	97	172

* 12 missing cases (unspecified rural or urban destination)

M male

F female

T total

Source: Kampung Awah Migration Survey 1986.

h) Remittances

The remittances referred to here are amounts of money given by migrants to their parents. They do not include goods received by parents when visited by migrants, which normally is in the form of food such as sugar, milk, flour, coffee and fruit. The information obtained here is rather crude since most respondents do not remember the exact money received and the

amount and frequency each year is irregular. This study only refers to the remittances sent in the year prior to the survey. Because of this limitation, the analysis presented here should be considered only as indicative of the remittances from out-migrants to the settlement scheme.

The survey found that only 29 per cent of out-migrants sent money to their parents in the settlement scheme (Table 11).

Table 11 Average Value Of Remittances Per Month

Amount (M\$ per month)	Urban (%)	Rural (%)
None	65.0	75.0
1-25	10.7	11.6
26-50	19.4	11.1
51-100	3.9	2.3
101 and above	1.0	0.0
Total	100.0	100.0
Number*	103	172

* 12 missing cases

Source: Kampung Awah Migration Survey 1986.

Others did not send money, generally because they did not earn extra income and, the evidence on the type of employment and level of education attained by migrants suggests it is most unlikely for them to earn high incomes. Many of them had married, which added to the financial burden on their family. This study shows that more single migrants sent money (34 per cent) than married migrants (27 per cent) and more male migrants remitted money (31 per cent).

For those who did send money, the majority sent less than \$M50 per month and most of them were in service occupations. The average remittances sent by each migrants was M\$33 per month. The effects of remittances on settlers' income were significant for those who received them (38 per cent of the settlers). The average monthly income of settlers who received remittances were M\$366 compared to M\$300 for non-receiver. Analysis of remittances by rural and urban destination shows some difference, with 35 per cent of migrants from urban areas sending remittances compared to 25 per cent from rural areas. This could be due to the fact that more urban migrants were single males, working in service occupations and probably earned relatively higher incomes.

Out-Migration Trend

The number of out-migrants each year obtained from the survey has been converted to the total for Kampung Awah. The result is shown in Table 12.

Table 12 Out-Migration From Kampung Awah

Year	Period	Migrants (111 Sample)	Migrants (Total)	Per Year
1963-67	1	9	27	5
1968-72	2	27	81	16
1973-77	3	41	123	25
1978-82	4	111	333	67
1983-86*	5	96	288	91

* 3 years and 2 months

Source: Kampung Awah Migration Survey 1986.

The number of out-migrants increased in each successive period and was quite substantial 15 years after the settlers' entry. Most of the out-migrants were settlers' children. After 15 years the settlers' children who were aged 0-9 at the time of entry were at the peak age of migration (age 20-24). The individual life cycle of the settlers' Children appears to be a key concept in explaining the variation in the number of out-migrants at each development stage of the settlement scheme. The sequence of events in the early stages of the life cycle, that potentially could be experienced by all children, and seem to be related to the event of migration, are: the phase of pre-school and primary education, the phase of secondary school under age 18, the phase of tertiary education, entry into the labour force and marriage. However everyone does not necessarily experience all phases since some may jump from the phase of completion of secondary school directly to entry into the labour force or marriage.

In the phase of pre-school and primary education most of the children stay with their family. This was at the beginning of the settlers' entry into the settlement scheme. Primary education facilities are available in the settlement schemes and within the walking distance of most homes. There were very few out-migrations at this stage. In the second phase, that is during secondary education, about 10 years after entry into the settlement, many still stayed with their families. Secondary education facilities are available some distance away from the settlement and in some places in the settlement itself. Daily commuting from home to school is common. Some may have out-migrated to study in school further away or stay in hostels provided by FELDA in Kuantan, Johor Bahru and Kuala Lumpur. Thus some migration occurred among the secondary school age population (ages 13-18). Some bright children may have entered higher institutions, which are mainly located in the cities, and returned to the settlement during holidays. Many completed secondary education, as indicated in the previous section on the educational attainment of the settlers' children. Those who finish secondary education entered the labour force phase. Many stayed at home while applying for jobs and most of these helped their parents in plantation work. This may take a few years, but by age 20-24 many would have obtained jobs elsewhere and migrated. So migration is substantial at this stage, especially for males, about 15 years after settlers' entry.

Many females entered the stage of marriage after finishing secondary education. As they married they move to their husband's home, which was usually not located in the settlement. This was true even when marriage occurs among settlers' children in the same schemes because most husbands were employed elsewhere, thus substantial out-migration of females due to marriage occurred at this stage. Since male migrants usually married only after getting a job, and the job offers were mostly elsewhere (outside the settlement schemes), no migration of males occurred due to marriage.

This examination of the life cycle stages of second generation settlers (settlers children) in relation to development stages or age of settlement schemes provide some indication of the reason for the trend of out-migration discussed above.

Conclusion

In this study an attempt has been made to identify the pattern of out-migration and the characteristics of out-migrants from a settlement scheme in Jengka region. It has been shown that there was potential pool of out-migrants among settlers' children in the scheme particularly those aged 15-29. The phenomena of out-migration occurs substantially 15 years after settlers' entry and will continue until most settlers' children have gone out. If the pattern apply to other settlement schemes in Jengka region, it could be expected that massive out-migration of second generation from the settlement schemes will begin by late 1980s, since most settlers (86 per cent) enter the schemes in Jengka in 1970s. Such large number of potential migrants possible could not be absorbed by the limited employment opportunities available in Jengka region, and consequently they will be forced to migrate elsewhere, such as the Kuala Lumpur-Klang Valley region which is not too far away. The study found that employment related reasons were the main factors for migrating to urban areas which supports the assumption above (migrating to Kuala Lumpur-Klang Valley region). Another possibility is inter-frontier region migration from Jengka region to DARA (Pahang Tenggara Regional Development Authority) region. However, most of the employment opportunities in DARA are agricultural, and as such it may be assumed that movement between areas with similar condition will be very conservative. Migration to

agricultural employment may not be attractive to the second generation of settlers who would have attained higher education and urban orientation and would have more potential for upgrading their status.

This study also points out that development of frontier region in Jengka, which is agriculturally based, has not succeeded in creating extensive multiplier effects for further development of other economic activities, such as manufacturing and services. Such development can thus be seen as static with not many further employment opportunities created outside of agriculture. As a result there is potential for considerable out-migration from this frontier region in the future. So the trend would be migration to urban areas particularly among males, since female tend to migrate within shorter distances and for marriage related reasons.

The consequence would be quite negative to Jengka region as a whole although some individual settlers might benefit from remittances send by out-migrants (settlers' children). The main effect will be depopulation of the region leaving older population behind. The number of children ever born will be decreasing since the population of child bearing ages gradually diminished. Thus the long term effect will be under utilization of facilities and utilities provided and inefficiency of running the services. The level of agricultural productivity will drop, affecting the economy of the region which is heavily based on agriculture.

However, the phenomenon of out-migration from the settlement schemes may not be a "bad" thing because the purpose of the schemes was to exploit resources, and that will continue at a relatively high level of productivity. In fact, even if the second generation was not from the settlement schemes, migration to urban areas might also occur due to advancements in communication, education, and other facilities in rural areas. The issue could be the "depopulation effect" as mentioned above in the settlement scheme or the frontier region as a whole, and the implication of migration for the area of destination, particularly those which were already over congested such as the Kuala Lumpur-Klang Valley region. These issues however are not the subjects of this study.

By implication, policy of regional development in the future must consider how to cater for the second and future generation in frontier development regions. They must also include the creation of employment opportunities to suit the needs and aspirations of future generation, or alternatively ensure that future generation in the region will participate in development activities in frontier region which are agriculturally based.

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