



Seila



UNDP/CARERE

On people, roads and land

**Immigration and its consequences for
Highland communities in Ratanakiri**

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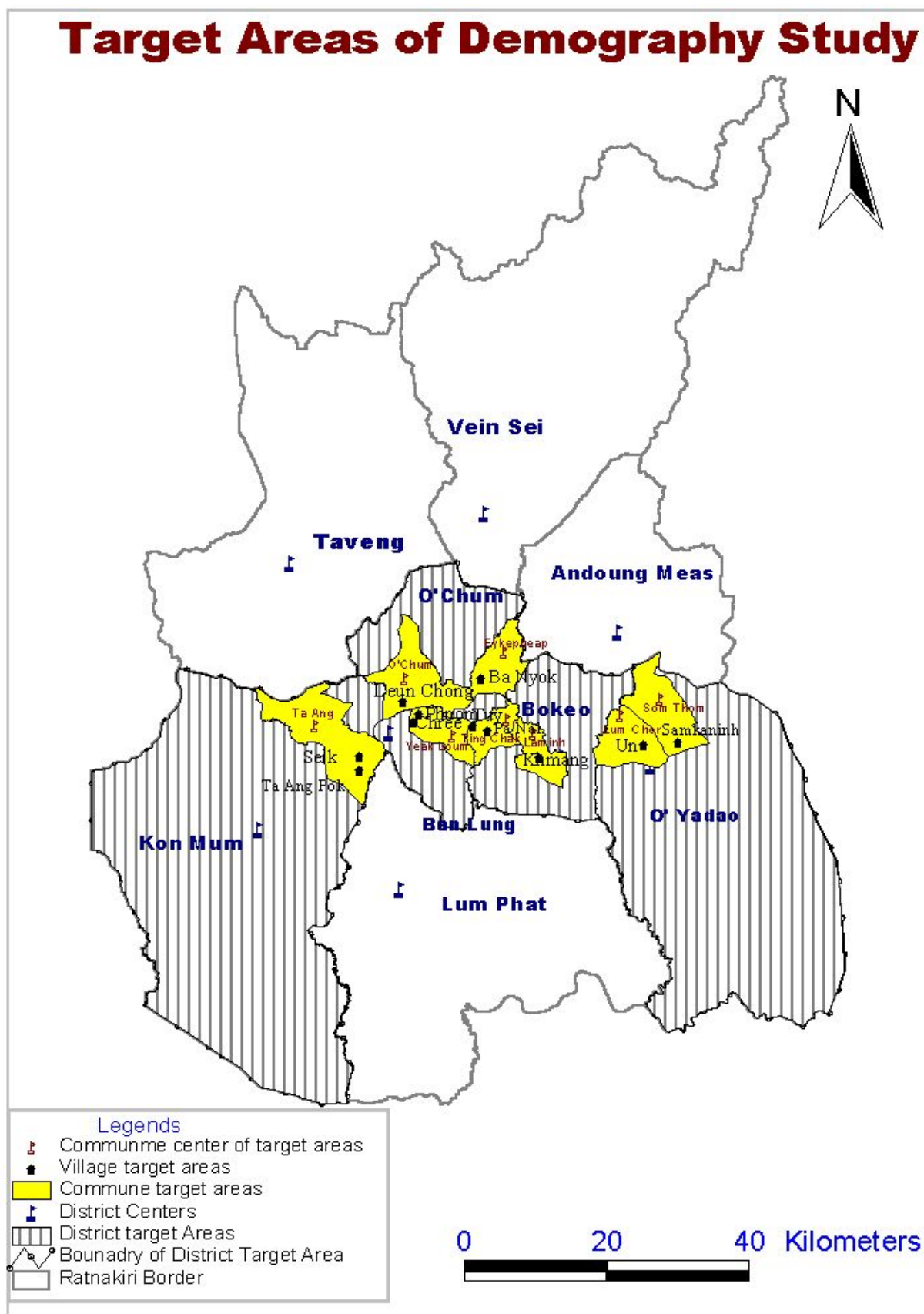
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Map of target area



1 Introduction

Ratanakiri is a province inhabited predominantly by different groups of Highland People. The basis of their livelihood has been and still is the forest. Rapid development, economic as well as social, already started to alter this. Part of this development is caused by increasing numbers of migrants coming into the province. In the 1950's the Cambodian government started to encourage lowland Cambodians to settle in the north-eastern provinces of the country. The government sent soldiers and their families to the province to enforce its resettlement policies for indigenous villages. Moreover, soldiers and ex-soldiers themselves were resettled from the lowland to Ratanakiri. Following the soldiers were pioneers who were given incentives if they chose to live in this remote part of the country¹. Voluntary migration² came to a virtual halt during the Khmer Rouge period, to be continued at a particularly rapid pace in the last ten years to date³.

Within the IDRC/CARERE Research activities, baseline studies mainly concentrated on the natural resources situation in the province and the impact of change in natural resources to the users. As migration is considered to be a main cause in natural resources change and degradation, a need was felt for research into this matter. No research has been done yet to assess the extent of migration of outsiders coming to Ratanakiri and the impact this has on local communities.

The objective of the research is:

Information is available on the immigration of outsiders (lowland Cambodians, Laos and Vietnamese) in Ratanakiri to be able to establish and document socio-economic impact of these processes on indigenous communities⁴.

To achieve the objective the following research questions were defined:

- **What is the extent and pattern of migration in Ratanakiri?**
- **What are the concerns of the indigenous communities in relation to migration of outsiders?**

In the following chapters these questions will be addressed. Chapter 3 addresses the general migration pattern into Ratanakiri, followed by an overview of the living conditions of external migrants. Chapter 4 gives information on the living conditions of internal migrants. The two groups of migrants are distinguished by their place of birth. External migrants are those people born outside Ratanakiri, whereas internal migrants have moved around the province but were born in Ratanakiri. In chapter 5 the impact of migration on natural resources is examined.

¹ White 1996b, p.344-348.

² Some lowland Cambodians were forced to settle and work in Ratanakiri under the Pol Pot regime. The total number of Cambodians coming to Ratanakiri under his rule is unknown.

³ McAndrew 2000, p. 4

⁴ IDRC project document 2000.

2 Research Methodology

Part of the IDRC/CARERE strategy for conducting research is to build the capacity of local research institutions. The Faculty of Social Sciences of the University of Phnom Penh has been a partner in conducting this research. Three students and a professor have been co-operating with a team of provincial researchers and their commune counterparts in conducting the study under supervision and facilitation of IDRC/CARERE staff⁵.

The data gathered in this research were collected in two different ways: a quantitative questionnaire among 514 respondents and groups interviews in 11 indigenous villages.

Table 1: Number of respondents per district and ethnicity

Count		Ethnicity														Total	
		Cham		Jarai		Khmer		Kreung		Lao		Tampuan		Vietnamese			
		SEX		SEX		SEX		SEX		SEX		SEX		SEX			
		F	M	F	M	F	M	F	M	F	M	F	M	F	M		
Ban Lung	2	18			41	58	5	29	22	33	4	11	14	25	88	174	
Bokeo	1	8		2	6	30			8	8	1	4	2	8	18	60	
Konmum			1	1	25	27	1	9	3	3	1	5			31	45	
O'Chum		5			5	19	1	12				14			6	50	
O'Yadao				13		15			2	1		2	2	7	4	38	
Total	3	31	1	16	77	149	7	50	35	45	6	36	18	40	147	367	

The questionnaire was conducted to gain information on the extent of migration and the living conditions of this group. The five districts which were selected as target areas were: Konmum, Ban Lung, O'Chum, Bokeo and O'Yadao. The reason for selecting these districts was that most migrants settle along the main road, which goes through four of the five districts. O'Chum was added because of its vicinity to Ban Lung and is therefore also attractive for settlers. The respondents were selected in a stratified manner based on the ethnicity of the migrants. Quotas were set on the amount of respondents per ethnicity on the basis of their prevalence in the province⁶. They have not been selected at random, but in a snow ball fashion. Due to its focus on the districts along Highway 19 and the selection methods, the outcome of the study is not representative for the developments in the whole province.

The second research method consisted of group interviews in 11 highland villages of which 7 were in areas that were close to migrant settlements⁷. This method was chosen to study the opinion of villagers on migration into the province and the impact of migration on Highland villages. In each village one day was spent talking to a mixed group of male and female villagers.

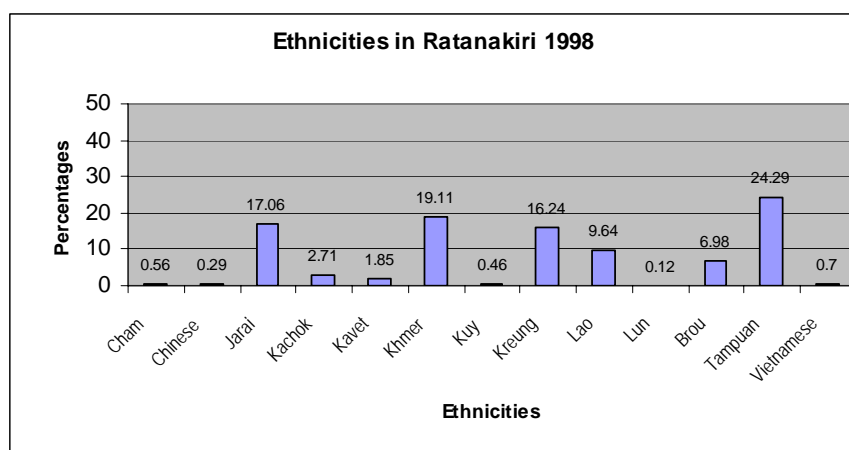
⁵ See Annex IV for details on the research team.

⁶ Later on during the research preparation also internal migrants were included in the research, which made it necessary to interview highlanders as well. Although the majority of the population is of highlander origin, the total amount of migrants, internal or external, are not. Therefore, the number of highlanders interviewed in this research is not representative of the total population. In addition, it has to be taken into account that the highland respondents of this research are no longer living in villages but in district towns. This makes them less representative of their ethnicity as well.

⁷ See Annex V for names of the villages, and the map on p. 2, for their location.

3 Immigration in Ratanakiri

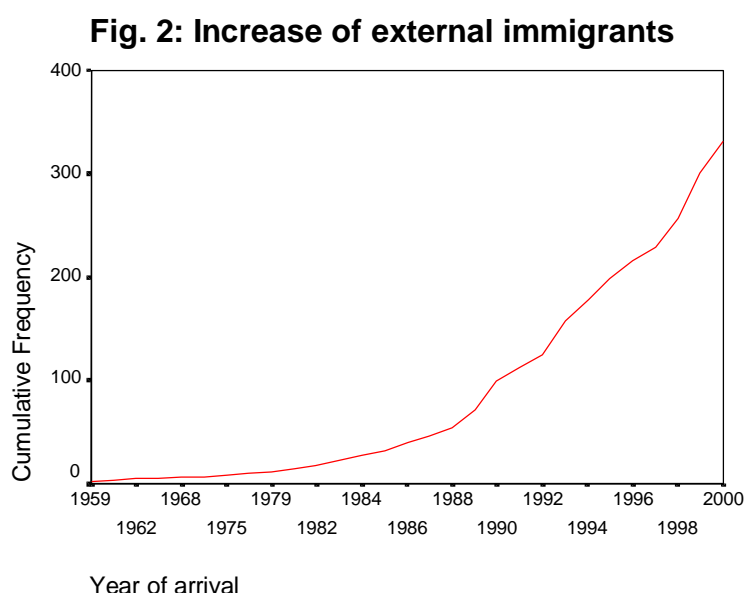
The population of Ratanakiri has consisted for centuries primarily of Highland People and ethnic Lao. This situation is changing due to the migration of lowland Cambodians and to a lesser extent Lao from other provinces in Cambodia and Vietnamese. Details on the change within and between ethnic groups is hard to find and often based on estimates. Figure 1 shows



the ethnic breakdown of the population in 1998 as presented in the commune database of the Department of Planning. In Joanne White's study of 1996⁸, she quotes a source which says that 76% of the population of Ratanakiri are Highlanders, whereas the commune database

Source: Department of Planning Commune Database 1998

figures of 1998 show that the total Highland population is only 70%, a decrease of 6%⁹. A study conducted by McAndrew indicated that the population of Ratanakiri is rapidly increasing. He found that the total population had increased by 41% in only 6 years. This



increase is much higher than the increase of the total Cambodian population, which was 29% in 1998¹⁰. The discrepancy¹¹ is likely due to in-migration as 9.3% of the population of Ratanakiri reported their previous province of residence to be outside Ratanakiri. Another 0.8% said their country of previous residence was outside Cambodia¹².

Although the demography study specifically targeted the immigrant population in an

⁸ White 1996, p. 6.

⁹ White does not mention the year these figures were based on, so it is impossible to draw conclusions on the rate of the decrease.

¹⁰ From 66,764 inhabitants in 1992 the Ratanakiri population grew to 94,243 in 1998 (McAndrew 2000, p. 7).

¹¹ The difference is 41%-29%=12%. The total migration into Ratanakiri is 9.3%+0.8%=10.1%, roughly the same as the difference in population growth.

¹² 1998 Census Village Level Data

area along road number 19 and thus is not representative of the whole population, the findings provide an indication that migration into Ratnakiri is accelerating. The majority of the respondents classified as external immigrants have come after 1990 (see fig. 2).

The majority of the external immigrants in the study were Khmer, Cham and Vietnamese (see table 2). Most of the Lao interviewed in this research were originally from Ratanakiri. Among

Table 2: Kind of immigrants per ethnicity

Ethnicity	Kind of Immigrants	
	External	Internal
Khmer	94.2%	5.8%
Cham	100.0%	
Jarai	11.8%	88.2%
Kreung	5.3%	94.7%
Lao	25.0%	75.0%
Tampuan		100.0%
Vietnamese	100.0%	
Total	(330) 64.2%	(184) 35.8%

all 514 respondents, 64.2% were born outside Ratanakiri and therefore classified as external immigrants. The other 35.8% of the respondents were born in this province but had moved from their original location to another.

There is an interesting difference between the period of arrival of the various ethnic groups as is demonstrated in fig. 3. The bulk of the Khmer and Cham came here between 1995 and 2000 whereas the majority of the Vietnamese came earlier, in the years

between 1990 and 1994. The growing internal stability during 1995 and 2000 and improving communication and infrastructure are likely to have led to an increase in more Cambodian nationals coming in. The ties with Vietnam and Cambodia were tighter before 1995 which probably made it easier for Vietnamese to obtain the necessary papers to settle in this province.

The bar chart in fig. 4 shows that most external immigrants come from Kampong Cham (35 %), followed by Vietnam (15 %) and Takeo (14 %). Both Kampong Cham and Takeo are densely populated provinces where landlessness is the main cause for poverty. A survey among shopkeepers in Boko revealed that 43 % originated from Takeo and only 19 % from Kampong Cham¹³. The difference between the two studies could be related to the fact that shopkeepers are not a true representation of the total population. In comparison, 43% of the farmers among

Figure 3: Period of arrival per ethnicity

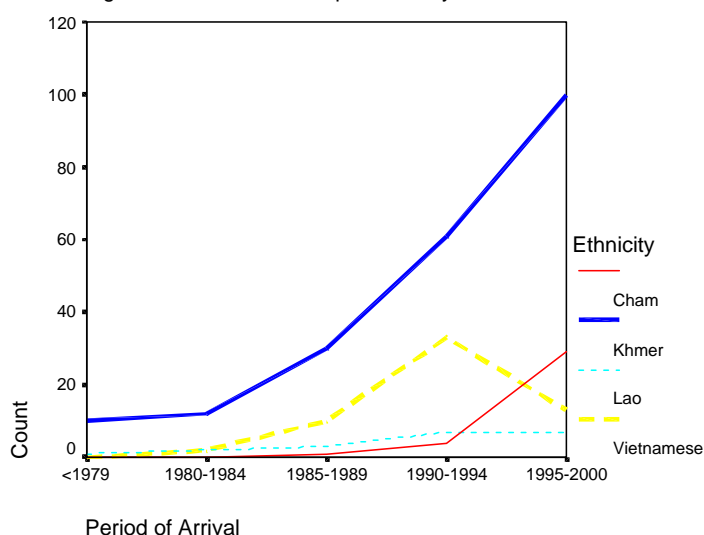
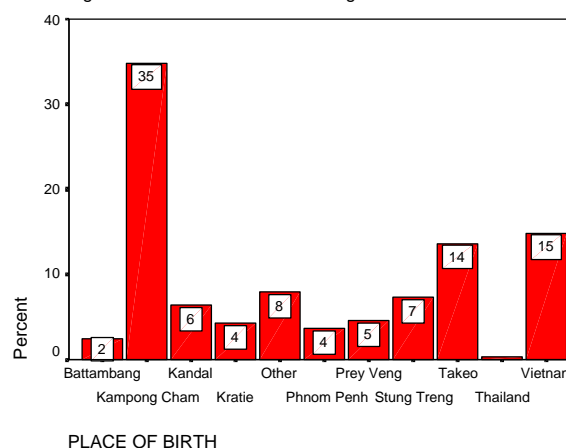


Fig. 4: Place of birth External Immigrants



¹³ McAndrew 2000, p. 14-15.

the 60 external immigrants in Bokeo were from Kampong Cham, whereas the majority of the sellers indeed came from Takeo. This could be related to family issues. Those who already have family working as a seller, are more likely to find work in the same field because of their family network (see section 4.1 for more information on this subject).

Table 3: Reason for migrating to Ratanakiri

Reason	Ethnicity						Total
	Cham	Jarai	Khmer	Kreung	Lao	Vietnamese	
Business	41.2%	50.0%	41.3%		35.0%	86.2%	48.5%
Follow relatives	2.9%		11.7%		30.0%	10.3%	11.5%
Homeland			.9%	33.3%	5.0%		1.2%
Job		50.0%	15.0%		10.0%	3.4%	11.2%
Lack of land	55.9%		28.6%	33.3%	20.0%		25.8%
Other			2.3%	33.3%			1.8%
Total	(34) 100%	(2) 100%	(213) 100%	(3) 100%	(20) 100%	(58) 100%	(330) 100%

The majority of the external migrants came directly from their province of birth to Ratanakiri. This can be concluded from the table in Annex 1. Their province of birth was the same as the province the majority of the respondents lived in before they came to Ratanakiri. This fact may indicate that immigrants do not choose Ratanakiri randomly, but have set their minds on this province before coming. The province must therefore have some familiarity to them, likely due to the fact that relatives are already living here who provide them with the information or encourage them to follow their example. This finding is partly supported by table 3, which gives an insight in the reasons for migration. Following relatives is for 11.5 % of the respondents the main reason for coming to this province. The major reason for migrating to Ratanakiri is related to improving their living conditions, as the external immigrants stated they came here to do business, or because their job required them to settle here. In addition to this, 26 % came here in search of land because they had no access to land in their own province. A comparison between ethnic groups shows that Cham immigrants are mainly coming because of lack of land, whereas for Khmer migrants it is a mixture between business and land related reasons. For Vietnamese migrants land does not seem to be an issue at all. They are here to do business.

In terms of assessing the impact of migration on the Highland population, it is important to examine the location where migrants choose to settle. Table 4 shows there is a clear relation

Table 4: Distance from road in relation to kind of migrant and ethnicity

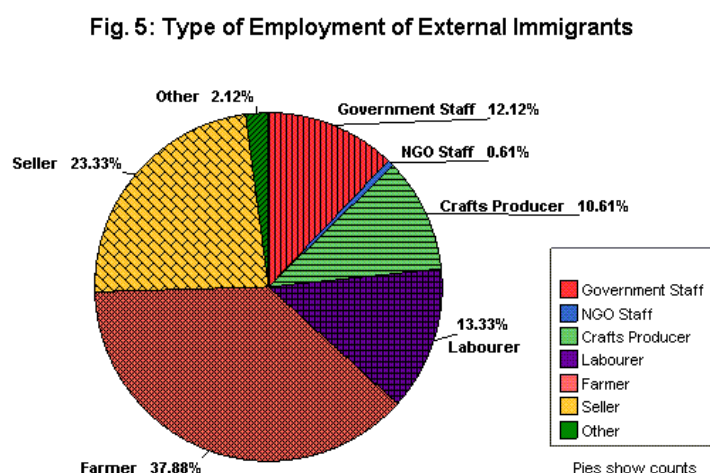
Distance from main road	Ethnicity										
	Cham	Jarai		Khmer		Kreung		Tampuan	Lao		Vietnam
	External	External	Internal	External	Internal	External	Internal	Internal	External	Internal	External
Near road	50.0%		40.0%	66.2%	69.2%	33.3%	35.2%	45.2%	50.0%	25.0%	89.7%
< 1 km	29.4%	100.0%	40.0%	27.2%	23.1%	33.3%	37.0%	40.5%	45.0%	56.7%	10.3%
> 1 km	2.9%		20.0%	5.6%	7.7%	33.3%	27.8%	14.3%	5.0%	18.3%	
> 5 km	17.6%			.9%							
Total	(34) 100%	(2) 100%	(15) 100%	(213) 100%	(13) 100%	(3) 100%	(54) 100%	(42) 100%	(20) 100%	(60) 100%	(58) 100%

between the distance to roads and the location where the respondents lived. The majority of the Vietnamese, Khmer and Cham live near the main roads. Although, a relatively big group

of the Cham respondents preferred to stay more than 5 km from the main road, the Lao, and highlanders tend to choose places a little more off the main roads in the target areas¹⁴. Whereas the internal migrants of Lao descent tend to live further away from the road, the opposite is the case for internal migrants of Khmer descent.

3.1 Living conditions of external immigrants

Thirty eight percent of the immigrants makes a living out of farming. Comparing the reason for migrating to this province and the type of employment they are engaged in, the data show



a consistent pattern. The majority of the sellers said to have wanted to come for business and the ones who were in search for land are now farmers (see Annex 2). Most of the immigrants seemed to have succeeded in what they wanted to achieve by coming to this province. The fact that the migrants succeed, could trigger more migration into Ratanakiri.

The majority of the Cham migrants are farmers, whereas there is a more differentiated pattern visible among the Khmer migrants. Although 41% of this group of migrants are

farmers, a significant percentage of people are sellers, labourers and government officials. The Vietnamese are mostly sellers, crafts producers and labourers.

Table 5: Type of Employment per ethnicity

Type of Employment	Ethnicity						Total
	Cham	Jarai	Khmer	Kreung	Lao	Vietnamese	
Government Staff		50.0%	16.0%		25.0%		12.1%
NGO Staff	2.9%		.5%				.6%
Crafts Producer	5.9%		6.1%		10.0%	31.0%	10.6%
Labourer	8.8%		11.7%		10.0%	24.1%	13.3%
Farmer	64.7%	50.0%	41.8%	100.0%	40.0%	3.4%	37.9%
Seller	14.7%		23.0%		15.0%	34.5%	23.3%
Other	2.9%		.9%			6.9%	2.1%
Total	(34) 100%	(2) 100%	(213) 100%	(3) 100%	(20) 100%	(58) 100%	(330) 100%

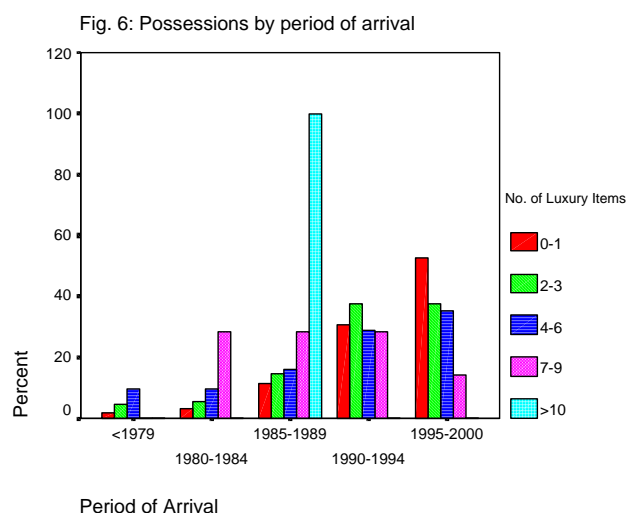
Although the majority of the migrants are evidently poor, there are differences between ethnic groups. Table 6 demonstrates that a bigger proportion of the Vietnamese live in normal and good quality houses than the Khmer and Cham do. This could indicate that the

¹⁴ As large groups of Lao live in villages in Veunsai and Lumphat and there are some Khmer villages in Konmum, the outcome of this study would probably have been slightly different if these areas had been part of the target areas of the research.

Vietnamese immigrants are better off than the other external immigrants. The same can be concluded from table 7. There are relatively more Khmer, Cham and Lao who do not possess more than one luxury item¹⁵ in comparison with the Vietnamese.

The Cham settlers are clearly among the poorest of settlers in terms of property and houses. An explanation for Vietnamese being

seemingly less poor may be that most of the Vietnamese are living in Ratanakiri longer than the majority of the Cham and Khmer. They have had more time to establish themselves and acquire property. This is substantiated by fig. 6 which shows a relation between period of



arrival of the immigrants and the number of luxury items they were able to purchase. The categories above 7 items go down over time whereas the ones below 6 go up or remain the same. Another explanation could be that this group invests their money in property rather than in land as the other migrants seem to do (see tables 13 and 14 and Annex III). Religion could be a reason for the Cham to spend less money on property. Traditionally trade is something which is looked down upon by the Cham because of their religion, the Islam¹⁶. Acquiring wealth through

trade could therefore still not be very acceptable.

Table 7: Number of Luxury Items by ethnicity

Number of Luxury Items	Ethnicity						Total
	Cham	Jarai	Khmer	Kreung	Lao	Vietnamese	
0-1	70.6%	50.0%	63.8%		65.0%	46.6%	60.9%
2-3	17.6%	50.0%	25.8%	100.0%	25.0%	34.5%	27.3%
4-6	8.8%		8.5%		5.0%	15.5%	9.4%
7-9	2.9%		1.9%		5.0%	1.7%	2.1%
>10						1.7%	.3%
Total	(34) 100%	(2) 100%	(213) 100%	(3) 100%	(20) 100%	(58) 100%	(330) 100%

¹⁵ Respondents were asked to list the possessions they had. These included televisions, radio's, tape recorders, motorbikes, bicycles, furniture, phones, cars, generators, water pumps, tractors and others

¹⁶ Collins 1996, p. 92-93.

4 Internal Migrants

Within the province migration also takes place. According to the figures of the Census, 10% of the Ratanakiri population has previously lived somewhere else in the province and 4.4% has moved from one district to another¹⁷. The majority of the internal migrants in this research are Lao. It should be noted, however, this study had a disproportionately low number of

Table 8: Movement pattern of internal migrants

Former district of residence	DISTRICT					Total
	Ban Lung	Bokeo	Konmum	O'Chum	O'Yadao	
Andoung Meas	1.9%					1.1%
Ban Lung	4.7%	16.7%	19.0%	3.8%		7.1%
Bokeo	2.8%	5.6%	14.3%	19.2%	15.4%	7.6%
Konmum	2.8%	5.6%	9.5%			3.3%
Lumphat	9.4%	11.1%	19.0%	7.7%	7.7%	10.3%
O'Chum	17.0%		4.8%			10.3%
O'Yadao	.9%	11.1%			69.2%	6.5%
Taveng	4.7%		23.8%			5.4%
Veun Sai	49.1%	16.7%	9.5%	19.2%		33.7%
Unknown	6.6%	33.3%		50.0%	7.7%	14.7%
Total	(106) 100%	(18) 100%	(21) 100%	(26) 100%	(13) 100%	(184) 100%

respondents from Jarai, Kreung and Tampuan origin. It is likely that the majority of the internal migrants are in fact Highlanders and not Lao, who are lowlanders, at all. Only a small number of these migrants have lived outside Ratanakiri and

have moved back to their province of origin as is shown in table 8.

The majority of the internal migrants come from Veun Sai, Lumphat and O'Chum and have settled predominately in Ban Lung. Only those migrants in O'Yadao have moved primarily inside their own district instead of leaving for another district. Less than 15 % of the internal migrants have lived in other provinces or countries before returning back to their native province. The majority never left the province as is demonstrated by table 8.

Table 9: Previous location of internal immigrants

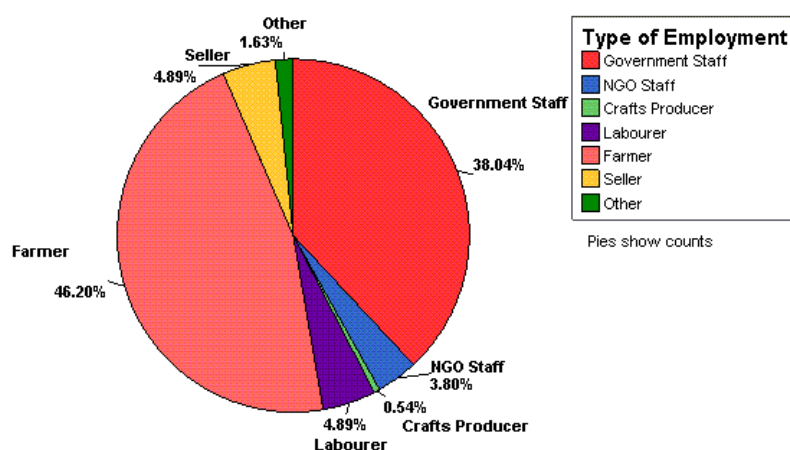
Previous location	Ethnicity					Total
	Jarai	Khmer	Kreung	Lao	Tampuan	
Ratanakiri	93.3%	84.6%	79.6%	86.7%	88.1%	85.3%
Battambang		7.7%	9.3%			3.3%
Kratie	6.7%			1.7%		1.1%
Laos			9.3%		2.4%	3.3%
Phnom Penh				1.7%	2.4%	1.1%
Preah Vihear					4.8%	1.1%
Refugee Camp				1.7%	2.4%	1.1%
Siem Reap				1.7%		.5%
Stung Treng		7.7%	1.9%	6.7%		3.3%
Total	(15) 100%	(13) 100%	(54) 100%	(60) 100%	(42) 100%	(184) 100%

¹⁷ 1998 Census Village Level Data.

4.1 Living conditions of Internal Immigrants

Compared to the external immigrants a big difference is observed in the way the two groups make a living. Farming and working for the government are the main types of employment

Fig. 7: Type of Employment of Internal Migrants



the internal migrants are engaged in. Ratanakiri natives seem to be much less involved in income generation out of private enterprise, such as selling products at the market and crafts production.

highlander groups. The majority of the Lao are government staff. Comparatively, the Khmer are the ethnic group with the most market sellers, 21 % against only 8 % of the Lao, 2.4 % of the Tampuan and none of the Jarai and Kreung

A breakdown among ethnic groups shows that the Jarai are under represented in government jobs¹⁸ as compared to the other internal migrants, including the other highlanders changing their ways. In a study of conducted in 1996¹⁹, hardly any Highlanders owned stores in the

Table10: Type of Employment per Ethnicity among internal migrants

Type of Employment	Ethnicity					Total
	Jarai	Khmer	Kreung	Lao	Tampuan	
Government Staff	6.7%	38.5%	40.7%	48.3%	31.0%	38.0%
NGO Staff			3.7%	3.3%	7.1%	3.8%
Crafts Producer					2.4%	.5%
Labourer			5.6%	5.0%	7.1%	4.9%
Farmer	93.3%	38.5%	50.0%	30.0%	50.0%	46.2%
Seller		23.1%		8.3%	2.4%	4.9%
Other				5.0%		1.6%
Total	(15) 100%	(13) 100%	(54) 100%	(60) 100%	(42) 100%	(184) 100%

market. When compared to the findings of McAndrew²⁰, 1 Kreung man now owns a store in the Ban Lung market.

The data of the survey show a difference between the standard of living of the external and internal migrants. As shown in

Table 11: Number of Luxury Items by Kind of Immigrants

Number of Luxury	Kind of Immigrants		Total
	External	Internal	
0-1	60.9%	53.3%	58.2%
2-3	27.3%	31.5%	28.8%
4-6	9.4%	13.6%	10.9%
7-9	2.1%	1.1%	1.8%
>10	.3%	.5%	.4%
Total	330 100%	184 100%	514 100%

¹⁸ A comparison with the situation of external immigrants of Jarai descent learns that of the two persons, one is a government employee.

¹⁹ Sugiarti 1997

²⁰ McAndrew 2000, p. 9

table 11, the internal migrants are slightly better off in terms of the possession of luxury items. As already mentioned in the section on the living conditions of the external migrants, it is likely that the amount of years the two groups are living in the province explains the difference. Because the internal migrants were born in the province they have had more time to establish themselves as compared to the new comers.

Table12: Quality of houses per ethnicity among internal migrants

Quality of House	Ethnicity					Total
	Jarai	Khmer	Kreung	Lao	Tampuan	
Good		15.4%	1.9%	5.0%		3.3%
Normal	20.0%	69.2%	24.1%	61.7%	33.3%	41.3%
Poor	80.0%	15.4%	74.1%	33.3%	66.7%	55.4%
Total	15	13	54	60	42	184
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Within the internal migrants, the difference in terms of possessions is along the lines of highlanders and lowlanders. This can be concluded from the types of houses and the amount of luxury goods the Khmer and Lao possess as compared to the highlanders.

Table 13: Number of Luxury Items per ethnicity among internal migrants

Number of Luxury Items	Ethnicity					Total
	Jarai	Khmer	Kreung	Lao	Tampuan	
0-1	80.0%	46.2%	59.3%	40.0%	57.1%	53.3%
2-3	20.0%	15.4%	37.0%	33.3%	31.0%	31.5%
4-6		30.8%	3.7%	23.3%	11.9%	13.6%
7-9		7.7%		1.7%		1.1%
>10				1.7%		.5%
Total	(15)	(13)	(54)	(60)	(42)	(184)
	100%	100%	100%	100%	100%	100%

When a further distinction is made between the highlanders, the findings shown in table 11 and 12 reveal that the Tampuan are less poor than the Kreung and that the Jarai are at the bottom of the list. It must be kept in mind that these migrants no longer live in their original villages but in Ban Lung or district towns. These findings are therefore by no means an indication that all Tampuan in the province are better off than all the Kreung and Jarai.

5 Natural Resources Issues and Migration

5.1 Land

The quantitative questionnaire might not have been the right instrument to measure the amount of land people possess because land ownership is a sensitive issue on which respondents might not have been completely honest. The hypothesis that immigrants come here in search of land and therefore occupy substantial amounts of hectares proved to be wrong when analysing the findings of the questionnaire. The main conclusion that can be drawn from the findings is that the highlanders have access to relatively more land than the other inhabitants of the province (see table 13 and 14). This might be true, however, the upland agriculture as practised by the highland people requires more land than more intensive forms of agriculture as practised by the other groups.

Table 14: Chamkar and forest land

Amount of ha.	Ethnicity							Total
	Cham	Jarai	Khmer	Kreung	Lao	Tampuan	Vietnamese	
None	64.7%	11.8%	72.6%	21.1%	62.5%	28.6%	94.8%	61.7%
0.1-0.49		29.4%	4.0%	8.8%	5.0%	14.3%	3.4%	6.0%
0.5-0.99		11.8%	3.1%	5.3%	6.3%	2.4%		3.5%
1-2.49	29.4%	29.4%	12.4%	47.4%	20.0%	35.7%		19.6%
2.5-4.99		11.8%	2.2%	12.3%	3.8%	11.9%		4.3%
5-9.99	5.9%	5.9%	3.5%	5.3%	1.3%	7.1%	1.7%	3.7%
>10			2.2%		1.3%			1.2%
Total	34 100.0%	17 100.0%	226 100.0%	57 100.0%	80 100.0%	42 100.0%	58 100.0%	514 100.0%

The data on paddy land and plantation land show a similar pattern. Relatively more highlanders possess more land for paddy, plantations and home gardens²¹. The reason why highlanders have larger fields could be due to the fact that fallow land was mistakenly

Table 15: Land used for paddy, plantations and home gardens

Amount of ha.	Ethnicity							Total
	Cham	Jarai	Khmer	Kreung	Lao	Tampuan	Vietnamese	
None	26.5%		8.4%	1.8%	2.5%	4.8%	31.0%	9.9%
0.1-0.49	41.2%	47.1%	59.3%	64.9%	63.8%	64.3%	60.3%	59.5%
0.5-0.99		11.8%	6.6%	10.5%	7.5%	4.8%	1.7%	6.2%
1-2.49	11.8%	29.4%	16.8%	12.3%	20.0%	19.0%	6.9%	16.0%
2.5-4.99		11.8%	3.5%	10.5%	2.5%	4.8%		3.9%
5-9.99	8.8%		4.0%		2.5%	2.4%		2.9%
>10			1.3%		1.3%			.8%
Unknown	11.8%							.8%
Total	34 100.0%	17 100.0%	226 100.0%	57 100.0%	80 100.0%	42 100.0%	58 100.0%	514 100.0%

included in the category of chamkar or plantation. Highland people on average only use between 1 or 2 ha. for cultivation per year. Villagers do not own the fallow lands, nor the chamkars they produce crops on. They have user rights to the land instead. In addition, many highlanders have started to grow cash crops on fallow lands along roads, partly as a measure against land being taken by outsiders²². Such fallow lands could also have ended up in the plantation category.

²¹ Home gardens also include courtyards, the land where the house is build on.

²² Department of Environment 2000.

The findings also show that the Vietnamese hardly possess any land. This corresponds with the fact that none of the Vietnamese migrants are farmers. Although the Cham came here in search of land, they seem to have even less than the Khmer and Lao settlers. Seemingly, it contradicts the information that Cham are predominately farmers. According to the explanation given by some Cham migrants, this group uses land which belongs to plantation owners. The crops which the owners have planted are mainly fruit trees and coffee. This allows for inter-cropping with vegetables such as rice, soybeans, mung beans and peanuts during the first years because the trees are still small. The Cham get user rights in turn for looking after the plantation.

The only ethnic groups who possess more than 10 ha. of paddy or plantation and chamkar or forest land are Khmer and Lao. In addition, mostly Cham, Khmer and Lao and only a few Tampuan possess more than 5 ha. In Annex III details on land holdings are presented. Although by far the majority of the Khmers have very little or no land at all, what is interesting to see is that only within this ethnic group there are some who possess the larger plots of cleared land²³ and plantations.

Although the majority of the immigrants only possess small plots of land, it cannot automatically be concluded that migration does not form a threat to local highland communities. As was already shown earlier in this report, the migrants are rapidly increasing in number. Many small plots of land will start to add up in the future. This is especially the case in areas along the main roads and near district centres. In addition, only outsiders²⁴ possess land which is bigger than average.

In all Highland villages where informal discussions were held, the villagers thought that immigration of outsiders was an important reason that contributed to a loss of customary land. However, immigrants are not only at fault of taking and buying village land. Villagers said that they themselves have started to sell land to these outsiders as well. In addition, the authorities are distributing land formerly used by highlanders to outsiders. Highlanders also need more land then before because of natural population growth and they turn fallow lands into cash crop plantations.

Reasons for a decrease in land as mentioned by Highlanders

- Natural population growth
- Land sales
- Immigrants buying land
- Land distributed by local authorities
- Land concessions for plantations
- Immigrants extending their property
- Immigrants taking land
- Fallow land used for plantations by Highland communities

The fact that villagers are selling land has a direct relation to more people coming into the province. When there would be no demand for land, highlanders would have nothing to sell. According to villagers, there are a variety of reasons behind selling land:

- Need for cash; villagers need money to buy medicines, for weddings, to purchase draft animals, to buy rice in case of rice shortages and to repay debts. In addition they want to buy consumer goods such as motorcycles, tape recorders, pots, pans, spoons, clothes, jewellery, watches and the need and want of modern houses etc.
- Soil infertility; land that becomes infertile is sold to outsiders, as the villagers no longer see a use for it.
- Fear of loosing land and benefit; as more and more land is lost due to land grab and other villagers selling land, these dynamics 'forces' other villagers to follow their example

²³ Cleared land is not used for anything as yet, but all the trees and bushes are cleared from the land.

²⁴ There is no difference in pattern when cross tabulations were made for external immigrants only and all respondents. In both cases only Khmers were represented in these categories.

because of fear to loose out completely. They think that in the future they would loose their land anyway, so it is more beneficial to sell the land now and earn some money from it.

- Copying neighbouring communities/other villagers when seeing the financial gain of selling land
- A few powerful village people (village and commune chiefs mostly) sell traditional land
- Not accustomed to living near immigrants; the villagers do not want to stay because they do not feel comfortable near migrants. What they do is move further away and sell the land near the migrant settlements as a side benefit.
- Chamkars are too far; some chamkars are very far from the village and regarded to be not very suitable to plant crops on. If there is a demand for that land, villagers do not hesitate to sell it.

Table 16: Land Bought per Ethnicity

Land Bought	Ethnicity							Total
	Cham	Jarai	Khmer	Kreung	Lao	Tampuan	Vietnamese	
No	67.6%	76.5%	62.4%	86.0%	65.0%	76.2%	77.6%	69.1%
Yes	32.4%	23.5%	37.6%	14.0%	35.0%	23.8%	22.4%	30.9%
Total	34	17	226	57	80	42	58	514
	100.0%	100%	100.0%	100.0%	100%	100.0%	100.0%	100%

What villagers see happening is that migrants, mostly Khmer, Lao and Cham buy land for plantations, to build a house on or for speculation. This is substantiated by table 16, which shows that Khmer, Lao and Cham are the main ethnic groups buying land. Besides buying land, outsiders also take land from communities and declare it is theirs by putting up signs and fences. Sometimes they make an agreement with villagers to borrow the land for a certain amount of time. The way immigrants obtain land from indigenous communities is demonstrated in the case study of Chree village below.

Migrants in Chree village

Chree is a Tampuan village which is only 1. km east from Ban Lung. Over the past few years this villages has experienced extensive change due to migration and land related issues. Since a few years, all Khmer, Lao and Chinese people living on Chree land, are formally inhabitants of this village. They attend village meetings and can participate in village development activities.

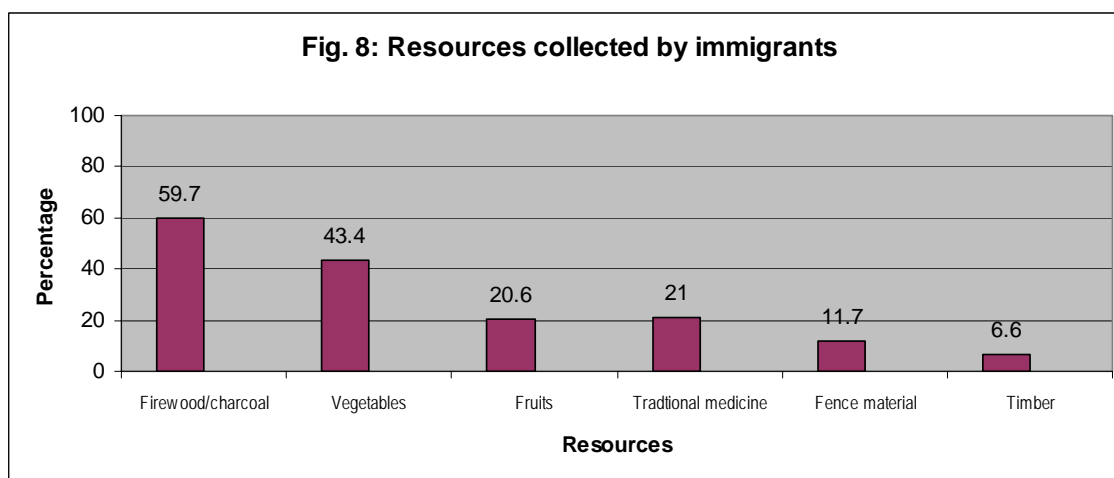
Two women were interviewed about how they had acquired land in Chree during the Gender and Natural Resources Management Study. Both families of these women had been cultivating and living on Phum Chree land for years, without paying any money for using the land. They used to live in Ban Lung but they did not have any land to cultivate there, so it was difficult for them to make a living. They could not grow rice and keeping livestock there was difficult. Therefore, they moved to Chree. One family had used the land for three years already, when they bought it two years ago. For 2 ha of land they paid 9 chi (± \$270). The other family bought land from three different owners, only one of them was originally from Phum Chree. In total she bought 2.2 ha for 10.5 chi (± \$315). Her family also borrowed paddy land from villagers, for which they do not pay any rent. When they move from Chree they would return it to the original owner. The two families do not have official titles to the land, although they said that the sale was official with the agreement of the owners, the village chief and the commune chief. They added that the owners voluntarily sold their land.

Highlanders see little possibilities to secure the land they need for survival. They said that they could not apply for land titles to gain legal rights over their lands. They feel that the authorities are not supporting them but work only for the migrants settling in Ratanakiri.

5.2 Forest products

Not only land is a resource under pressure due to migration. Other natural resources such as wood for construction, firewood, forest fruits, and wild life are also used by migrants. In all target villages respondents said to observe that migrants collect and use forest products. The main resources villagers mentioned the immigrants were using were timber for house

construction, fences, firewood and charcoal, vegetables, herbs and plants used for traditional medicines, wild fruits, bamboo, vines, and rattan. Most of these migrants are Khmer and to a lesser extent Cham.



These observation of villagers are in keeping with the data found in the questionnaire. Almost 53% of the Khmers collect forest products for subsistence purposes, against only 35 % of the Cham. After the Highlanders, the ethnic group that depends most on forest products are the Lao, with 84%.

Table 17: Collection of forest products for subsistence purposes per ethnicity

Collect forest products	Ethnicity							Total
	Cham	Jarai	Khmer	Kreung	Lao	Tampuan	Vietnamese	
No	64.7%	5.9%	47.3%	5.3%	16.3%	7.1%	84.5%	38.5%
Yes	35.3%	94.1%	52.7%	94.7%	83.8%	92.9%	15.5%	61.5%
Total	34	17	226	57	80	42	58	514
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%

Wood for fuel purposes and vegetables are the most widely collected products by the respondents of the questionnaire as can be concluded from fig. 6. The Khmer, Cham and Vietnamese are not as dependent on the forest as the Highland groups and Lao. Khmer and Cham mostly collect fuel wood and vegetables as shown in table 18. The use of firewood and charcoal among Khmer immigrants is probably much higher than presented in this table. These figures only represent what kind of product the respondents directly collect from the forest.

Table 18: Percentage of immigrants using different types of Forest Products (N=514)

Types of forest resources	% Khmer	% Cham	% Jarai	% Kreung	% Lao	% Tampuan	% Vietnamese
Fire wood-charcoal	49.1%	35.3%	94.1%	91.2%	83.8%	95.2%	15.5%
Fruit	7.1%	11.8%	64.7%	42.1%	40%	35.7%	6.9%
Traditional medicine	17.3%	8.8%	41.2%	36.8%	30%	31%	1.7%
Vegetable	29.6%	20.6%	82.4%	93%	52.5%	73.8%	15.5%
Fence material	8.8%	2.9%	41.2%	21.1%	10%	23.8%	3.4%
Timber	4.0%	0%	17.6%	19.3%	2.5%	16.7%	3.4%

Khmers mostly cook on charcoal and firewood, and besides collecting the products themselves, they buy it. Table 18 does therefore not provide any details on the demand for wood for fuel purposes. Only 11 % of the respondents said to have traded natural resources for commercial purposes. The Khmer and Jarai are by far the biggest groups to admit they have collected forest products for sale. It is not likely that these data represent a true picture as collecting forest products for sale is viewed as something that one should not do.

Table 19: Collection of Natural Resources for Commercial Trade

Collection of NR for trade	Ethnicity							Total
	Cham	Jarai	Khmer	Kreung	Lao	Tampuan	Vietnamese	
No	100.0%	82.4%	80.1%	96.5%	91.3%	97.6%	100.0%	88.7%
Yes		17.6%	19.9%	3.5%	8.8%	2.4%		11.3%
Total	34 100%	17 100.0%	226 100.0%	57 100.0%	80 100.0%	42 100.0%	58 100.0%	514 100%

Besides migrants putting an increased pressure on natural resources by collecting them, logging and clearing land for plantations was mentioned by villagers to be the main causes for a reduction in the availability of natural resources. In 7 of the 10 villages, logging had occurred in the period of 1996 to 1998, and in L'Eun Chong, Samkaning, Bornyok and P'Ah, villagers added this had happened on a large scale. In addition, villagers view themselves also as part of the cause by collecting products for sale, leading loggers to good quality timber, destructive harvesting methods, increased need to cut forests for chamkars and cash crop plantations and letting fires get out of hand.

6 Change in Lifestyle and Attitude of Indigenous People

Immigration does not only have consequences for the livelihoods of indigenous communities. It also may lead to alterations in cultural practices and traditions. In all 10 villages, people interviewed were aware of such changes. They said that in comparison with the time when there were hardly any outsiders in the province, they had observed a lot of difference with the way they are living now. The most significant of these changes are: style of clothing, kind of food they eat, style and material of houses, loss of taboos, respect for elders, ceremonies and music. The villagers said they have changed the way they dress and they eat because they do not want to look different. According to them these changes are brought into the villages by immigrants settling near or sometimes within the village boundaries, but also because of increased contact with government officials and NGO/IO workers involved in development programmes. Traditional music and songs are slowly taken over by Khmer music, as many of the villagers mentioned²⁵.

One of the more important changes is the loss of respect for elders. The villagers said this has much to do with the increased power and importance of village chiefs and commune chiefs, which are part of the government structure. They increasingly play a bigger role in settling conflicts within the village, between villages or with a third party. This is not the only reason though. In many villages, a divide is slowly beginning to establish itself between the young and the old. This was mentioned by all ten villages. During a study on Gender and Natural Resources Management in 1999 this issue also came up. Chree village provides the best example of this change. The elders in this village used to warn people not to cut trees in forests around Yak Loam. Now young people do not listen to them anymore. The only authority which people now respect is the provincial government (Environment Department) who declared the forest around Yak Laom to be a protected area. Other villages have similar problems. In Som Kol and Som Trak some of the young people no longer abide to traditional rules, concluding from what an elderly woman said in an interview: *'Elders do not have the right to forbid collecting or hunting certain forest products, and even if they did, young people would not listen to them'*. Young people in Som Trak increasingly stop believing in spirits because they have more faith in modern medicine than in sacrifices. They also go to the spirit forest to cut trees and shoot animals, since they no longer believe that the spirits can hurt them because they see outsiders doing the same without any consequences. The loss of respect for elders makes it also difficult to call for village meetings, which is the traditional way of making decisions²⁶.

The data of this research show that outside influences have a tremendous impact on highlander culture. Immigrants bring in new things and a new way of life which is regarded interesting enough to copy and incorporate into highland culture. Among all the changes mentioned, elders losing their power and the generation conflict are probably the most important of all. The social structure of more and more villages is in danger of breaking down. Elders kept a village together by trying to settle conflicts. Village and commune chiefs may do the same, but they are not independent village representatives. They are paid by the government to represent their interests in the village as well.

²⁵ Development projects have many unintended impacts. As the author observed in a Jarai village, the cassette player distributed as part of the Village Correspondents project was used to play Khmer songs at night to entertain the village youth, with the help of the solar panel and battery provided by the NFE project.

²⁶ Berg and Phalit 1999.

Against the negative impact of migration, stands the market opportunity migration creates for Highlanders. The immigrants are in need for food, such as vegetables, fruit, rice and meat. Highlanders near migrant settlements are selling these goods in increasing amounts in Ban Lung, Bokeo and O'Yadao market, providing them with cash they need to buy medicines, cloths and household appliances.

7 Conclusion

A change in the composition of the population of Ratanakiri is slowly taking place. For centuries the majority of the inhabitants have been a variety of hill tribes such as the Tampuan, Jarai and Kreung. In the last decade, the influx of Khmer, Cham, Vietnamese and to lesser extent the Lao have had its consequences for the highland people of this province. Although they are still the majority population in Ratanakiri, a trend is visible which may change this situation.

The majority of the external immigrants interviewed in this study are poor and have come here in an attempt to improve their lives. They have come from provinces which are highly populated and where agricultural land is in short supply. Apart from the Vietnamese settlers, the majority of the other migrants made a living out of farming on small plots of land. Considering their types of houses and the amount of luxury goods the immigrants own, the majority of them can be considered poor. Most of the external migrants prefer to live along the main roads or at a distance of less than 1 kilometre from the road. Although natural resources are used and traded by migrants, the direct dependence on such products is not to the same extent as is the case for highlanders.

The consequence of migration for highland villages is a complex matter. Although the majority of the migrants do not say to own much land, highlanders feel that this is one of the main causes for the increasing loss of land among highland villages. No evidence could be found in this research that many migrants own large estates. However, because all newcomers need a place to live, they will at least need a small plot of land to build a house on. As a substantial part of the migrants are farmers, highlanders will have to share the available agricultural land with them in the near future. Villages along the main roads and near district towns will feel the pressure on land first and the hardest because these are the locations that outsiders prefer for settlement. Regarding natural resources, wood for fuel purposes and forest vegetables are products which both highlanders and migrants are in need of. Because the majority of the migrants are poor, they will be very much dependent on resources they do not have to pay for. When the group of migrants grows, this puts an increasing pressure on such natural resources. The positive impact of migration is that it provides highlanders with the opportunity to earn an income out of selling chamkar and forest products.

Migration does not only have an economic impact on highland villages. Contact with Khmer, Lao and Vietnamese also have started to change the culture and traditions of highlanders. Again, it makes a difference where these villages are located. Changes are more visible and in some cases more dramatic in villages near roads and district towns because of the concentration of outsiders in these places. Villagers mentioned that they have already started to experience change in the way to treat illnesses, respect and power of elders and the way houses are built. The visible changes are probably much less destructive than less obvious changes such as the loss of respect for elders. As the youth are more receptive to change, generation conflicts also arise because they are no longer willing to continue to live as their parents do. These issues will make it increasingly difficult for a village to function as a unit. Migration thus has an impact on the social coherence of villages as well. To be able to deal with change a village needs social coherence and if this is exactly what gets lost due to migration, villages experiencing the effects of migration will get into a vicious circle of change, not being able to respond appropriately and loosing control over change all together.

8 Recommendations for future research

Due to time constraints this study on the extent of migration and its impact on Highland communities has been very limited. There is an obvious need for more information on certain aspects already touched upon in this report. Below a list of subjects for further research is given with a description on the way these issues can be studied.

- **Ratio of Migrant population and Highland people**

The only data available up until now are those within the Commune Database, with figures from 1998. Nothing can be said as yet on the decrease or increase of the Highland population against the immigrant population as reliable figures are only available on 1998. The Commune Database needs to be updated and checked every two years to be able to monitor the change.

- **Qualitative data on living conditions of immigrants and reasons for migration**

Case studies on a number of immigrant families (Khmer, Lao, Cham and Vietnamese) of a diverse socio-economic background could provide information on their migration history with detailed information on the reasons for moving to Ratanakiri, if Ratanakiri has provided them with what they aimed for by migrating to this province etc. In addition, data could be gathered on their use of natural resources, land ownership and land use. With regards to land use, the share cropping arrangement of the Cham with plantation owners as mentioned in this report would make a good case study as an example of a joint management system.

- **Settlement of immigrants/Land occupied by immigrants**

A comparison of aerial photographs of different periods could reveal precise information on the direction and extent of new settlements and land use over time. In addition, transect walks/sketch maps²⁷ on stretches of roads near and further away from district centres could give an indication on what the current situation on the selected spots are. Repetition of these exercises over a one or two year period will reveal the speed and extent of changes. Furthermore, some highland villages (near road, far from road, near district centres and far from district centres) could be selected to do a mapping exercise focusing on the land/area that has been occupied by outsiders.

- **Change in attitude / behaviour of indigenous youth**

Case studies through (individual) in-depth interviews with elders and a selection of young men and women (15 to 25 years of age for example) from villages near migrant settlements and villages which are more isolated could give an idea on the extent of change in attitude and behaviour of indigenous youth and the extent to which they have abandoned their traditional culture and what the main causes are.

²⁷ At the time of writing such an exercise was already taking place in O'Yadao, Bokeo, Ban Lung and Konmum.

Literature

Department of Environment

(2000) *Report on the End of Project Evaluation of the Community Based Natural resources management Project (RAT/ENV/9802)*. Ban Lung: Department of Environment
IDRC/ CARERE

McAdrew, John P.

(2000) *Indigenous adaptation to a rapidly changing economy: the experience of two tampuan villages in Northeast Cambodia*. Phnom Penh: CIDSE.

Sugiarti, Sri

(1997) *A preliminary socio-economic (anthropological) study of Rotanak Kiri Province of Northeast Cambodia: second draft*. Ban Lung: IDRC/CARERE

Van den Berg, Conny

(2000) *Women, men and their environment: gender and natural resources management in Ratanakiri Province, Cambodia*. Ban Lung: IDRC/CARERE.

Van den Berg, Conny and Phat Phalit

(1999) *Field Notes of the Gender and Natural Resources Management research: conducted between September 1999 and November 1999*. Ban Lung: IDRC/CARERE

White, Joanna

(1996) *Information and research for the planning process in Ratanakiri Province: current situation and future needs*. Ban Lung: IDRC

White, Joanna

(1996b) The indigenous Highlanders of the Northeast: an uncertain future. In: *Interdisciplinary Research on Ethnic Groups in Cambodia: final draft reports*. Phnom Penh: Center for Advanced Studies. p. 335-374.

Annex I: Settlement history of external immigrants

Place of birth by previous location before coming to Ratanakiri

Previous location	PLACE OF BIRTH											Total
	Battambang	Kampong Cham	Kandal	Kratie	Phnom Penh	Prey Veng	Stung Treng	Takeo	Vietnam	Thailand	Other	
Unknown			9.5%		16.7%		4.2%					1.5%
Ban Lung											3.8%	.3%
Battambang	75.0%	.9%						2.2%			7.7%	3.0%
Kampong Cham	12.5%	91.3%				13.3%						32.7%
Kampong Chhnang											7.7%	.6%
Kampong Speu											7.7%	.6%
Kampong Thom											19.2%	1.5%
Kampot											3.8%	.3%
Kandal			81.0%		16.7%			2.2%				6.1%
Kratie		1.7%		92.9%					6.1%			5.5%
Krong Pailin											7.7%	.6%
Phnom Penh		4.3%	4.8%		66.7%	6.7%		6.7%				5.5%
Preah Vihear		.9%									3.8%	.6%
Prey Veng						80.0%						3.6%
Pursat		.9%									7.7%	.9%
Siem Reap							4.2%				7.7%	.9%
Stung Treng	12.5%		4.8%				91.7%				3.8%	7.6%
Svay Rieng											19.2%	1.5%
Takeo								88.9%				12.1%
Vietnam				7.1%					93.9%	100.0%		14.5%
Total	8 100%	115 100.0%	21 100%	14 100%	12 100.0%	15 100%	24 100%	45 100%	49 100%	1 100.0%	26 100%	330 100%

Annex II: Type of employment and reason for migration

Relation between type of employment of migrants and reason for migration

Reason for migration	Type of Employment							Total
	Government Staff	NGO Staff	Crafts Producer	Labourer	Farmer	Seller	Other	
Business	17.5%		82.9%	68.2%	20.8%	81.8%	71.4%	48.5%
Follow relatives	22.5%	50.0%	8.6%	9.1%	7.2%	14.3%	14.3%	11.5%
Homeland					3.2%			1.2%
Job	55.0%	50.0%	2.9%	13.6%	3.2%	2.6%	14.3%	11.2%
Lack of land	2.5%		5.7%	4.5%	64.0%			25.8%
Other	2.5%			4.5%	1.6%	1.3%		1.8%
Total	40 100.0%	2 100.0%	35 100.0%	44 100.0%	125 100.0%	77 100%	7 100%	330 100%

Annex III: Details on landholdings

Size Chamkar per Ethnicity

Size Chamkar	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	81.0%	64.7%	96.6%	28.6%	22.8%	11.8%	63.8%	66.0%
0.1-1 ha	11.5%	14.7%	1.7%	47.6%	43.9%	70.6%	21.3%	20.6%
1.1-2 ha	2.7%	14.7%		11.9%	22.8%	11.8%	8.8%	7.4%
2.1-3 ha	1.3%			2.4%	5.3%		2.5%	1.8%
3.1-4 ha	.9%			4.8%	1.8%	5.9%	2.5%	1.6%
4.1-5 ha	1.8%	5.9%			1.8%			1.4%
5.1-6 ha			1.7%	2.4%	1.8%			.6%
6.1-7 ha				2.4%			1.3%	.4%
7.1-8 ha	.4%							.2%
9.1-10 ha	.4%							.2%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Size Plantation per Ethnicity

Size Plantation	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	92.5%	85.3%	94.8%	81.0%	77.2%	70.6%	85.0%	87.7%
0.1-1 ha	3.5%	5.9%	3.4%	9.5%	12.3%	29.4%	11.3%	7.2%
1.1-2 ha	.9%		1.7%	4.8%	7.0%			1.8%
2.1-3 ha				2.4%	1.8%			.4%
3.1-4 ha	.4%			2.4%	1.8%			.6%
4.1-5 ha	1.3%	8.8%					1.3%	1.4%
6.1-7 ha							1.3%	.2%
9.1-10 ha	.4%						1.3%	.4%
<10 ha	.9%							.4%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Size paddy fields per Ethnicity

Size paddy fields	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	80.1%	97.1%	98.3%	81.0%	86.0%	76.5%	80.0%	83.9%
0.1-1 ha	8.4%	2.9%		11.9%	7.0%	17.6%	15.0%	8.6%
1.1-2 ha	8.0%		1.7%	4.8%	3.5%		1.3%	4.7%
2.1-3 ha	.9%				1.8%	5.9%	3.8%	1.4%
3.1-4 ha	.9%				1.8%			.6%
4.1-5 ha	1.3%							.6%
6.1-7 ha	.4%							.2%
7.1-8				2.4%				.2%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Size Cleared Land per Ethnicity

Size Cleared Land	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	95.6%	100.0%	100.0%	90.5%	93.0%	88.2%	100.0%	96.1%
0.1-1 ha	1.8%			9.5%	5.3%	11.8%		2.5%
1.1-2 ha					1.8%			.2%
2.1-3 ha	.4%							.2%
3.1-4 ha	.4%							.2%
4.1-5 ha	.4%							.2%
9.1-10 ha	.4%							.2%
>10 ha	.9%							.4%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Size Forest Land per Ethnicity

Size Forest Land	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	93.4%	100.0%	100.0%	88.1%	84.2%	88.2%	96.3%	93.4%
0.1-1 ha	4.0%			11.9%	10.5%	5.9%		4.1%
1.1-2 ha	1.8%				3.5%		1.3%	1.4%
2.1-3 ha							1.3%	.2%
3.1-4 ha					1.8%		1.3%	.4%
4.1-5 ha	.4%					5.9%		.4%
7.1-8 ha	.4%							.2%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Size of land around house/homegarden per Ethnicity

Size of land around house/homegarden	Ethnicity							Total
	Khmer	Cham	Vietnamese	Tampuan	Kreung	Jarai	Lao	
None	13.3%	44.1%	32.8%	4.8%	3.5%	11.8%	3.8%	14.2%
0.01-0.1 ha	46.0%	41.2%	65.5%	52.4%	59.6%	52.9%	53.8%	51.4%
0.11-0.2 ha	16.4%			23.8%	15.8%	5.9%	15.0%	13.4%
0.21-0.3 ha	8.8%	2.9%		7.1%	14.0%	11.8%	12.5%	8.6%
0.31-0.4 ha	2.7%	2.9%		2.4%			5.0%	2.3%
0.41-0.5 ha	2.2%			2.4%	1.8%		3.8%	1.9%
0.51-0.6 ha	.9%			2.4%	1.8%			.8%
0.61-0.7 ha			1.7%	2.4%	1.8%		1.3%	.8%
0.71-0.8 ha	2.7%							1.2%
0.91-1 ha	1.8%	5.9%		2.4%		5.9%		1.6%
>1 ha	5.3%	2.9%			1.8%	11.8%	5.0%	3.9%
Total	226 100.0%	34 100.0%	58 100.0%	42 100.0%	57 100.0%	17 100.0%	80 100.0%	514 100.0%

Annex VI: Research Team

Name	Organisation	Role
1. Rau Tres	Provincial Research Team (OAHP, PDA)	Field researcher
2. Peew Pros	Provincial Research Team (OA, PDA)	Field researcher
3. That Sopheak	Provincial Research Team (OA, PDA)	Field researcher
4. Hara Laang	Provincial Research Team (OA, PDA)	Field researcher
5. Ha Sinaan	Provincial Research Team (OAHP, PDA)	Field researcher
6. Phat Phalit	IDRC/CAREERE	Research coordinator
7. Chin Saren	Phnom Penh University (Professor)	Field researcher and data analysis
8. Mao Sothy	Phnom Penh University (Student)	Field researcher and data analysis
9. Heng Nareth	Phnom Penh University (Student)	Field researcher and data analysis
10. Kim Sothery	Phnom Penh University (Student)	Field researcher and data analysis
11. Rocham Pon	Commune Research Team Som Thom	Field researcher
12. Klan Dom	Commune Research Team Som Thom	Field researcher
13. Romam Chan	Commune Research Team Laming	Field researcher
14. Deu Date	Commune Research Team Laming	Field researcher
15. Von Soveun	Commune Research Team Yeak Loum	Field researcher
16. Det Kavel	Commune Research Team Yeak Loum	Field researcher
17. Bori Et	Commune Research Team Ting Chak	Field researcher
18. Khen Nara	Commune Research Team O'Chum	Field researcher
19. Ngeu Phan	Commune Research Team O'Chum	Field researcher
20. Choeung Lay	Commune Research Team O'Chum	Field researcher
21. Conny van den Berg	IDRC/CAREERE	Data Analysis and Writing English Language Report

Annex V: Target villages of the research

No.	Target villages	Commune	District	Ethnicity
1.	Samkanin	Som Thom	O'Yadao	Jarai
2.	Un	Lum Chor	O'Yadao	Jarai
3.	Khmanh	Laming	Bokeo	Tampuan
4.	Tuy	Ting Chak	Bokeo	Tampuan
5.	Panal	Ting Chak	Bokeo	Tampuan
6.	Ba Nyok	Eykepeap	Bokeo	Tampuan
7.	Phnom	Yeak Loum	Ban Lung	Tampuan
8.	Chree	Yeak Loum	Ban Lung	Tampuan
9.	L'Eun Chong	O'Chum	O'Chum	Tampuan
10.	Seik	Ta Ang	Kon Mum	Kreung
11.	Ta Ang Pok	Ta Ang	Kon Mum	Kreung