

# SEMIGRA

## Kainuu Case Study

Targeted Analysis 2013/2/15

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This report presents the final results of a Targeted Analysis conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

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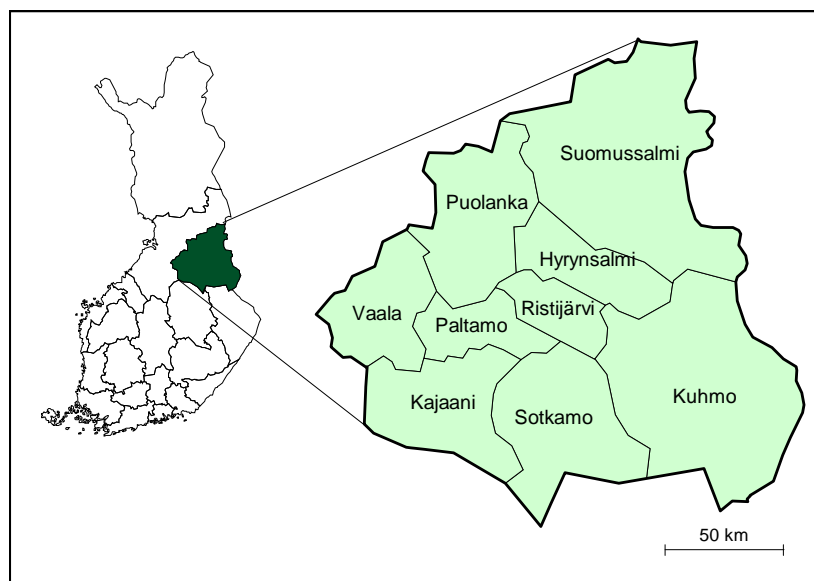
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# 1 Regional statistical Analysis

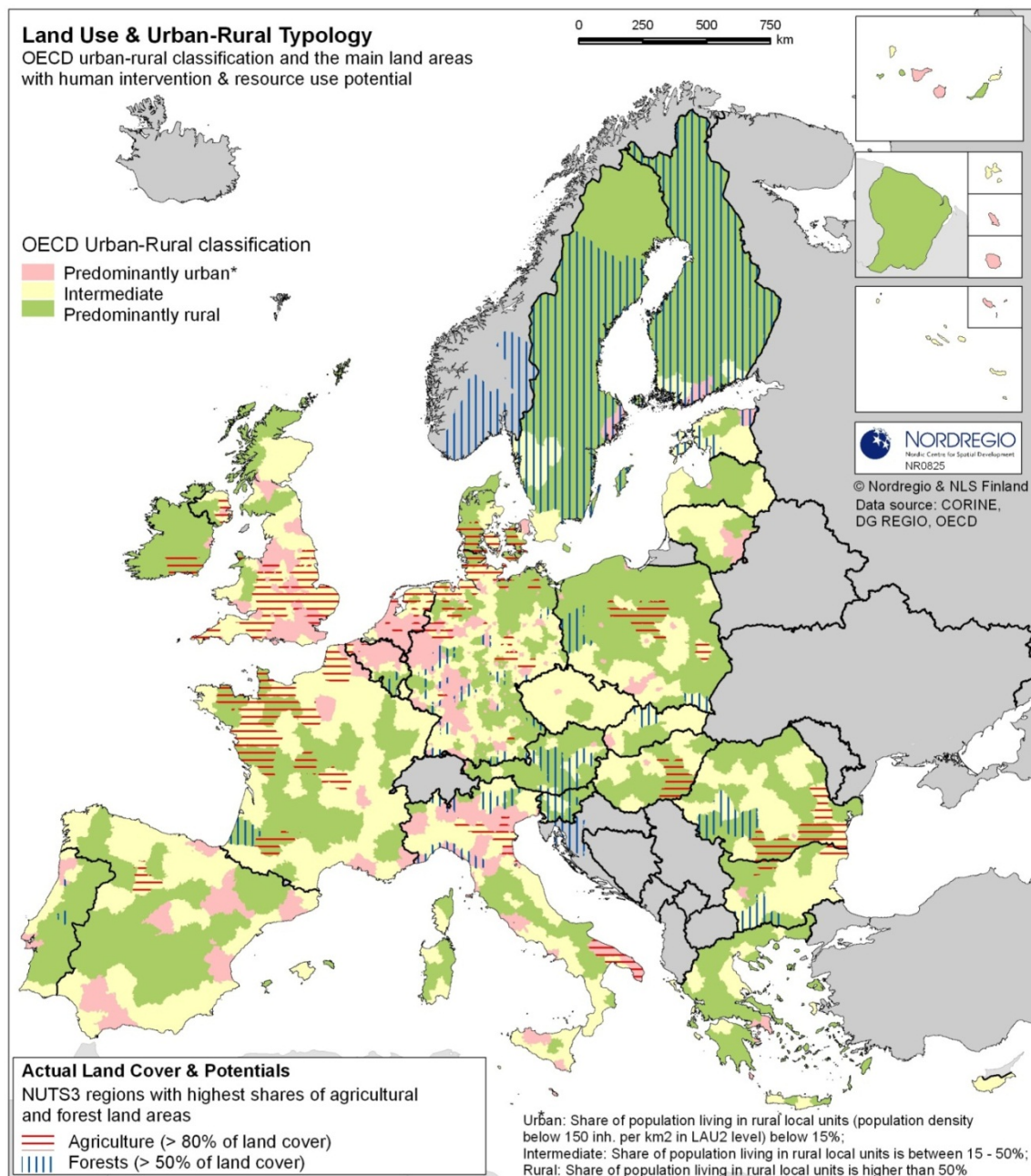
## 1.1 Kainuu with regard to the European context

The county of Kainuu is located in northern Finland, having 240 km of common border with Russia (Figure 1). Region consists of nine municipalities and covers a surface of 24 452 km<sup>2</sup>. The region is characterized by a very low population density: 3.4 persons per km<sup>2</sup>. 95 % of the land area is forest. Most municipalities are very small – over half of them have less than 5 000 inhabitants. The regional capital is Kajaani with around 38 000 inhabitants.



**Figure 1.** Kainuu region and its municipalities.

In the European context Kainuu region is one of the most rural and sparsely populated areas among EU-member countries. In the OECD urban-rural classification Kainuu as well as all of the eastern Finland predominantly rural area and forest covers over 50 % of the land (Figure 2).



**Figure 2.** Land use and Urban-Rural Typology in Europe. Source: Nordregio 2011.

Since the 1970's, Kainuu has been losing population due to both a negative migration and a negative natural population development. Especially the rural population is diminishing. Out-migration is the most powerful factor decreasing the population. Kainuu is continually losing population in a same way as other NUTS 2 regions in the eastern Finland and Lapland.

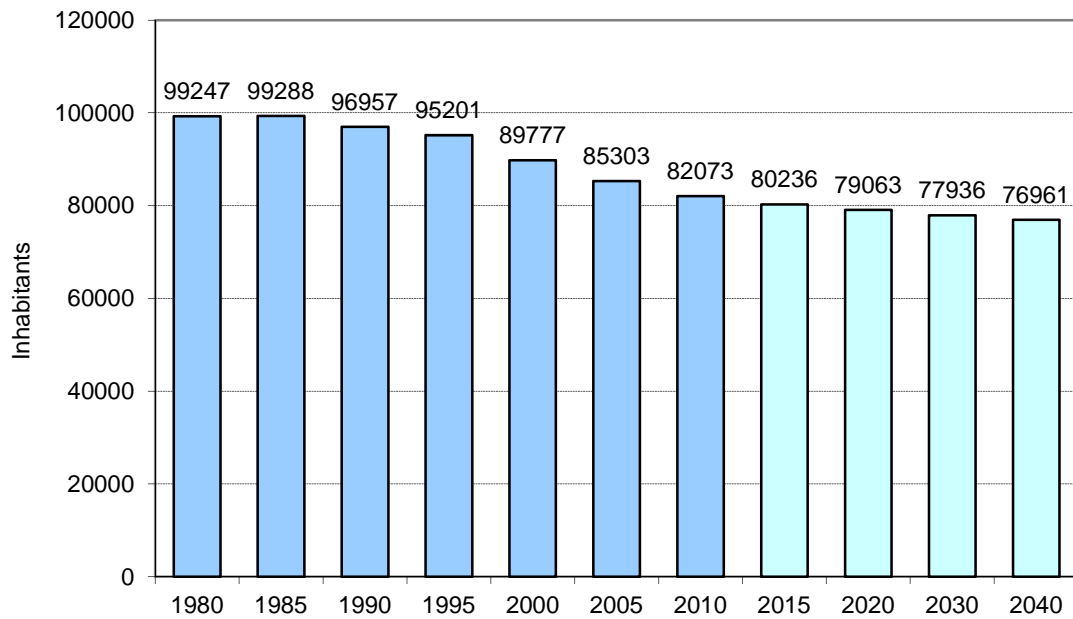
## **1.2 Kainuu region with regard to the national context**

### **Negative Population development and unbalanced sex ratio structures**

Migration of young people and the lack of young women have resulted in negative natural population development in Kainuu. In recent years the population of Kainuu has decreased over 500 persons annual. Fewer people are born than die, which means, that the population of the region decreases without the migration about 200 persons each year. Out-migration is anyway the most significant factor that decreases the population in the region. (Statistics Finland 2011.)

In 1980 the population on the Kainuu region was almost 100 000 inhabitants but since then the population decrease has been significant (Figure 3). In 2010 there were approximately 82 000 inhabitants in Kainuu. In thirty years the population has decreased almost 20 %. According to the Statistics Finland's population projection in 2009, the population of the region will continue to diminish; however, the pace will be considerably lower than in the previous years. It is estimated that in 2040 the population will be around 77 000 inhabitants.

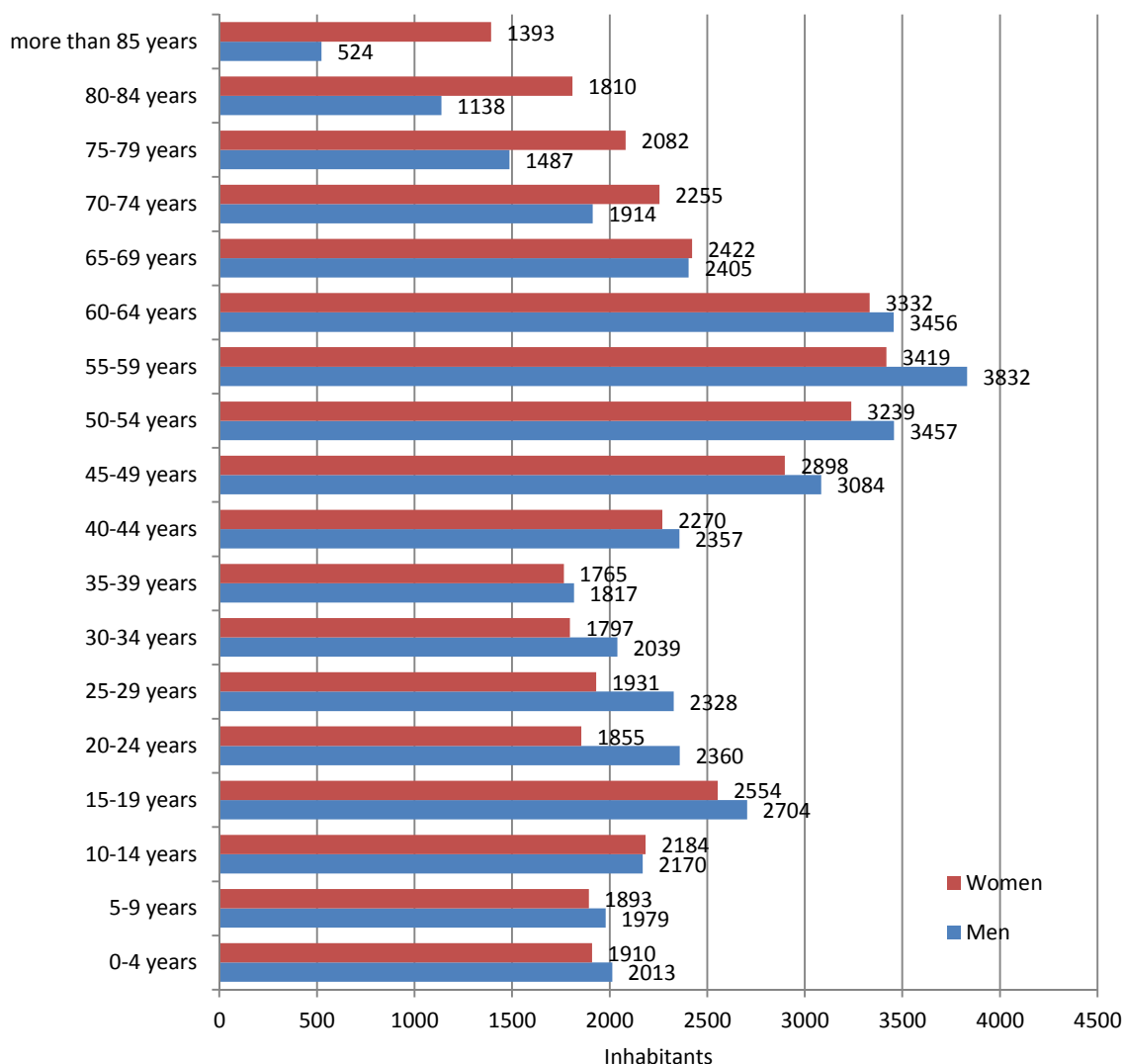




**Figure 3.** Population development 1980-2010 and population projection (2009) for years 2015-2040 in Kainuu (Source: Statistics Finland 2011).

When examining the gender distribution in Kainuu in smaller age groups (5-year) the unbalanced sex ratio structure can be noted clearly (Figure 4). Population under 15 years is quite evenly both male and female. However, the younger generations and the working age generations are clearly dominated by female. There is a significant shortage of women starting from the 15 year old upwards. The biggest gaps in the numbers of men and women are in the age groups 20–24 years, 25–29 years and 30–34 years.

Then again, from the age group of 65 years and older the amount of women compared to men starts to be higher and increases as the age groups get older and older. In the age group over 85 years there are over 2.5 times more women than men.



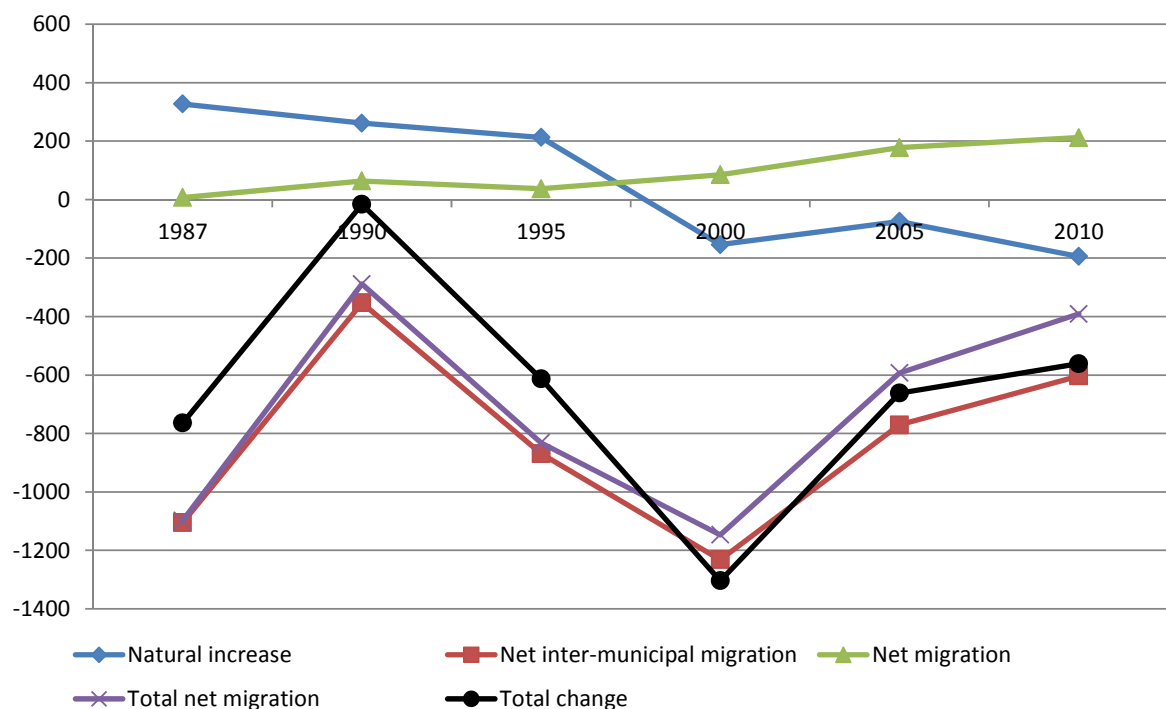
**Figure 4.** Population according to age (5-year) and gender in Kainuu region in 2010 (Source: Statistics Finland 2011).

The decrease of population in Kainuu in recent years is due to both negative natural increase and especially the negative net migration (Figure 5). The natural increase of the population was positive until the late 1990's in the region. For more than a decade the trend has been negative, more people die than are born.

The net inter-municipal migration has been negative whole period of 1987–2010. Especially in the 1990's people moved more and more out of Kainuu region and the highest migration peak was in the year 2000. After that the migration outside the region has diminished but however is still negative in total.

As a peculiarity, the net migration from abroad to Kainuu region has been positive over 20 years. Although the number of new

inhabitants from abroad is low, the yearly number is slowly increasing. In many rural municipalities in Finland the foreign migrants are the only reason for the population increase. Most of the foreign migrants in Kainuu are from Russia. In Kajaani there are also a number of refugees and asylum-seekers from Africa and other areas due to the reception centre in town.

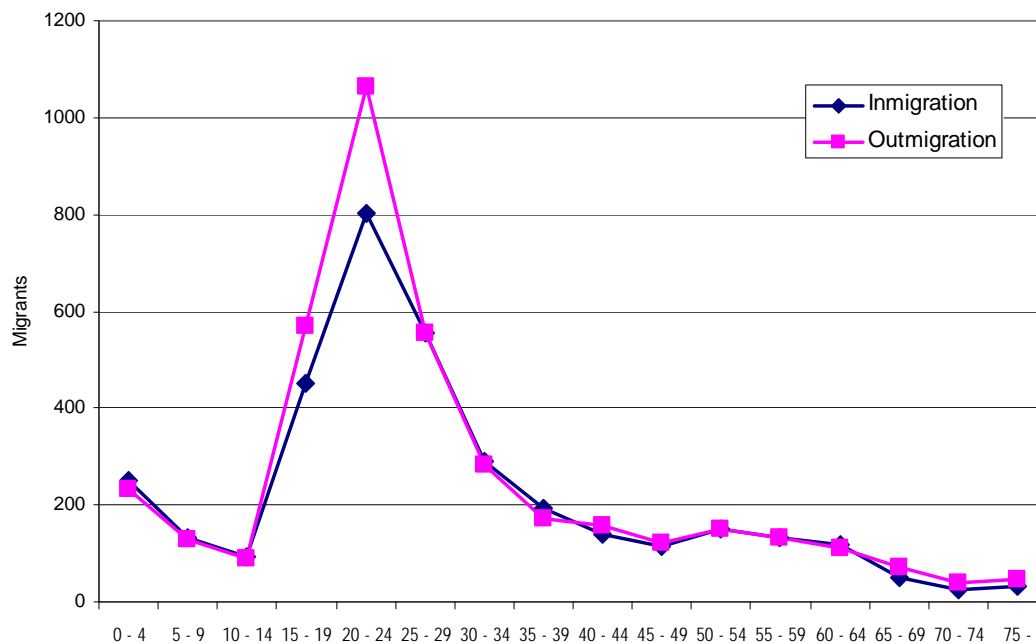


**Figure 5.** Natural increase, net migration and total change of population in Kainuu region in 1987–2010 (Source: Statistics Finland 2011).

The age groups of 15–19 years and 20–24 years in Kainuu are naturally the most migration-prone age groups. Most of the young people move outside Kainuu to study, since the education possibilities especially in the higher education are limited in Kainuu. In other age groups the balance between out- and in-migration is more even; the out-migration however slightly higher.

Because the number of out-migrants is bigger than the number of in-migrants, the migration balance of Kainuu is negative. In 2010 the migration balance was -391 persons (Figure 6). Out-migrants and in-migrants of Kainuu is emphasized the young age groups 15–19, 20–24 and 25–29 years. 60 percent of the 15-19 years old out-migrants are young women. Interesting is, that the same age group of the in-migrants had more female than male (55 %). Instead in the age group 20-24 years there are no gender differences. Over half of out-migrants of Kainuu (over 15 years) had high school

degree, 30 % basic education and 20 % had higher level education in 2010. The education of the in-migrants was quite similar. Most popular migration directions of the out-migrants of Kainuu were Oulu Region, Kuopio, Helsinki, so the capital of Finland and other university localities are most desired destinations.



**Figure 6.** Migration of Kainuu region in 2010. Contains internal migrants, immigrants and emigrants.  
Source: Statistics Finland.

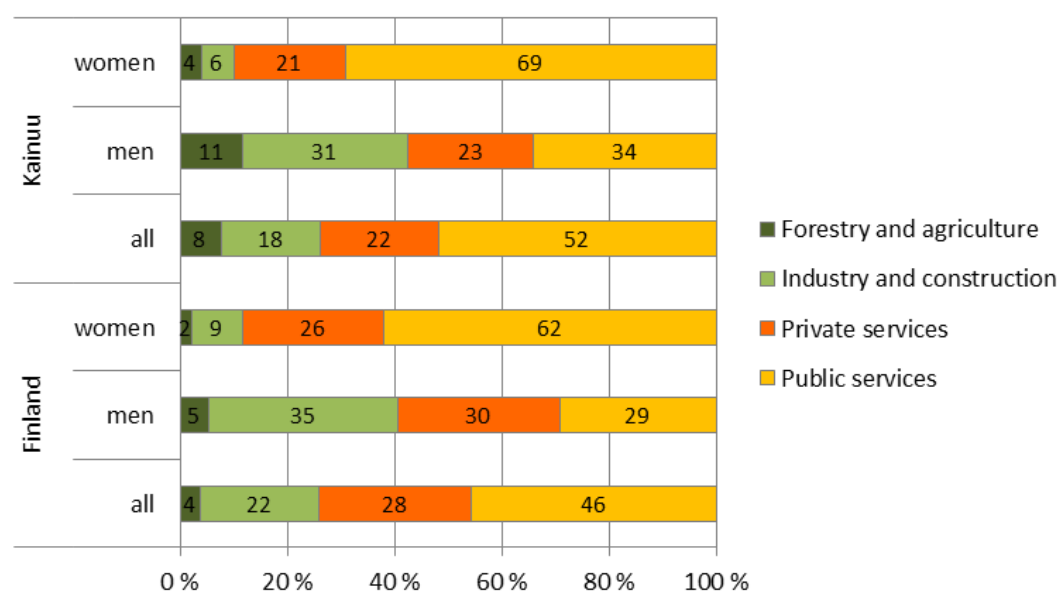
### Labor force participation and economical structure in Kainuu

The proportion of labor force of the population 15-74 years was 64 % in Finland and 58 % in Kainuu in 2009. The number of labor force decreased 5 % in Kainuu in 2005-2010 while in Finland the labor force increased in 2005-2010 about 1% (TEM 2012). Not only the out-migration loses the labor force but also the ageing of the population in region. The labor market of Kainuu is missing more population than gets new ones annually. Proportion of employed working in forestry and agriculture is below and proportion of those working in industry and construction is under the average figures in Finland (table 1).

**Table 1.** Employed in Kainuu and in Finland by industry in 2009. Source: Statistics Finland 2012.

Industry	Employed in Kainuu		Employed in Finland
	N	%	%
Forestry and agriculture	3098	7,7	3,7
Industry and construction	4790	18,5	20,2
Services	22303	73,8	74,1
<b>All</b>	<b>30191</b>	<b>100,0</b>	<b>100,0</b>

Forestry and agriculture and industry are branches that employ more men than women in Kainuu and in the whole country (Figure 7). Public services employ more population in Kainuu compared to the average of Finland. Quite high proportion of women in Kainuu work in public services, like social services and health care. In private services the finance and insurance branch is important for women (Statistics Finland 2012).



**Figure 7.** Employed in Kainuu and in Finland by industry and gender in 2009. Source: Statistics Finland 2012.

The Kainuu region has suffered from the highest unemployment rates in Finland, although in recent years the unemployment rate of Kainuu has come closer to the national average. The unemployment rate has decreased in Finland from 11.4 % in 1998 to 8.4 % in 2010. In Kainuu the unemployment rate was twice as high as the

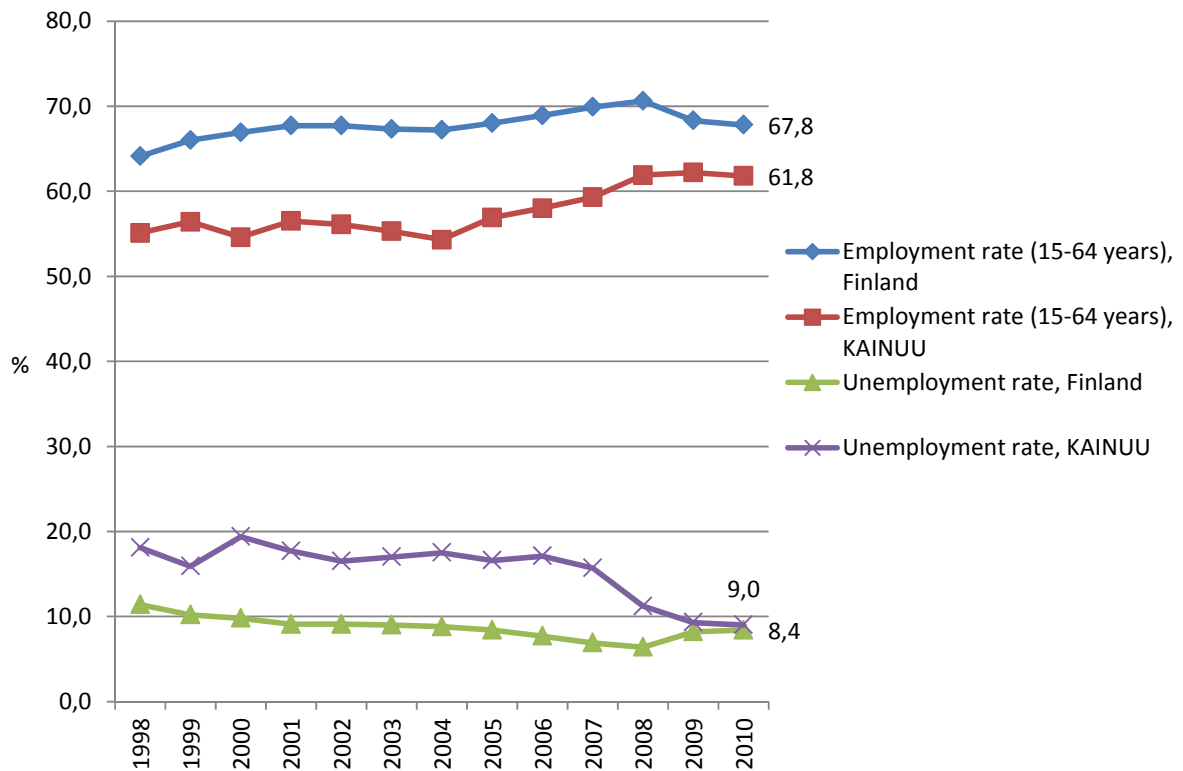
national average during the most difficult years. (Statistics Finland 2011.)

Proportion of labor force was highest in Kajaani (61 %) and lowest in Hyrynsalmi (51 %) in 2009. Proportion of unemployed was larger in Kehys-Kainuu sub-region (18 %, preliminary data 2010) than in Kajaani sub-region (13 %). The unemployment rate of Kehys-Kainuu sub-region is one of the highest in Finland. Proportion of the unemployed was lowest in Sotkamo and highest in Kuhmo.

In previous years the lumber industry had an important role as an employer. The largest employers in the region now are the public sector units, such as schools, vocational schools, high-schools and higher education institutions, as well as the municipalities and social and health services.

Human capital intensive industries are located in the city of Kajaani including instrument, measurement and software technology, wireless data communications and embedded systems. In the future, welfare technology, travel and biotechnology as well as mining are expected to be the driving forces of economic development in the region. Talvivaara nickel mine in Sotkamo is among the biggest in Europe. Besides that, tourism is an important regional potential and an important part of the regional development strategy.

Kainuu region has suffered from the highest unemployment rates in Finnish regions, although in recent years the unemployment rate of Kainuu has come closer to the national average (Figure 8). The unemployment rate has decrease in Finland from 11.4 % in 1998 to 8.4 % in 2010. The lowest unemployment rates were in 2007–2008 before the economic depression. In Kainuu the unemployment rate was in most difficult years almost double compared to the national average.



**Figure 8.** Employment and unemployment rates in Kainuu region and in Finland 1998–2010 (Source: Statistics Finland 2011).

Table 2 shows the population over 15 years according to their gender and workforce status in 2008. The unemployment rate among female is lower in all the age groups. However, the proportion of employed women between 25–34 years is lower than men, mainly due to the family reasons and children.

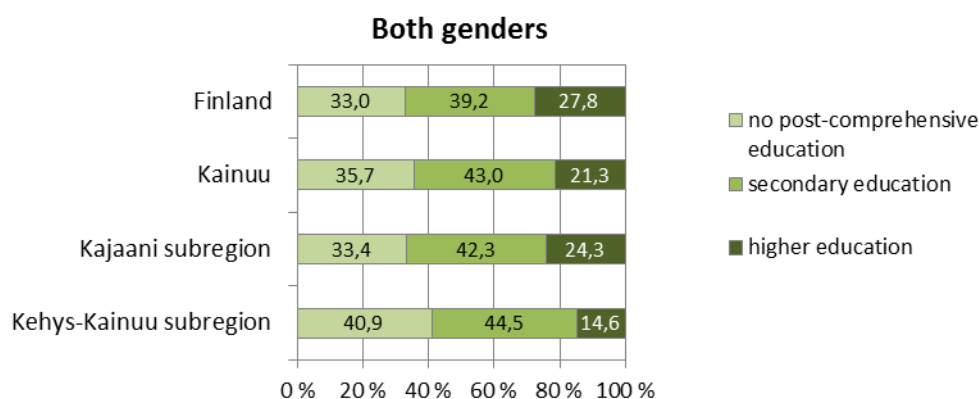
**Table 2.** Population over 15 years according to their gender and workforce status in Kainuu 2008 (Source: Statistics Finland 2011). Lower percentages of women compared to men are highlighted.

Age group	Employed				Unemployed				Out of workforce*			
	Men	%	Women	%	Men	%	Women	%	Men	%	Women	%
75+	0	0,0	0	0,0	0	0,0	0	0,0	3 021	100,0	5 091	100,0
70–74	4	0,2	5	0,2	0	0,0	0	0,0	1 966	99,8	2 249	99,8
65–69	86	3,9	39	<b>1,6</b>	0	0,0	0	0,0	2 127	96,1	2 351	98,4
60–64	837	26,4	854	27,6	185	5,8	178	<b>5,7</b>	2 145	67,7	2 064	<b>66,7</b>
55–59	1 982	52,5	2 174	63,5	703	18,6	452	<b>13,2</b>	1 093	28,9	800	<b>23,4</b>
50–54	2 446	65,6	2 487	75,5	565	15,2	314	<b>9,5</b>	715	19,2	491	<b>14,9</b>
45–49	2 361	72,0	2 448	78,3	510	15,6	315	<b>10,1</b>	406	12,4	365	<b>11,7</b>
40–44	1 973	72,8	1 957	78,1	438	16,2	242	<b>9,7</b>	300	11,1	308	12,3
35–39	1 433	74,2	1 444	75,7	285	14,8	185	<b>9,7</b>	212	11,0	278	14,6
30–34	1 515	77,7	1 277	<b>72,4</b>	234	12,0	148	<b>8,4</b>	200	10,3	340	19,3
25–29	1 638	72,2	1 236	<b>66,6</b>	334	14,7	178	<b>9,6</b>	297	13,1	443	23,9
20–24	1 144	47,7	1 026	50,5	353	14,7	164	<b>8,1</b>	900	37,5	842	41,4
15–19	247	8,7	294	11,6	109	3,9	67	<b>2,6</b>	2 470	87,4	2 183	85,8

\*Students, pensioners, conscripts, civil servants, other out of workforce

## Educational structure

The level of education in Kainuu is lower than the average in Finland, but the educational level has risen in last 10 years. Proportion of graduates in Kainuu region was 64,3 % and in Finland 67,0 % in 2010 (Figure 9). In Kainuu there are internal differences with the educational structure. The level of education is higher in Kajaani subregion than it is in more sparsely populated and peripheral Kehys-Kainuu subregion (Statistics Finland 2012).



**Figure 9.** The proportion of different education levels Of population (aged 15) in Kainuu and in Finland 2010. Source: Statistics Finland 2012.



Population with no post-comprehensive education in Kainuu region is only a bit higher than the average in Finland. There are no gender differences among the people with no post-comprehensive education. The level of education of women is higher than the level of education of men both in Finland and in Kainuu: there are more higher educated women than men (table 3).

**Table 3.** Education by gender in Kainuu and in Finland 2010. Source: Statistics Finland (aged 15).

		<b>Both genders</b>	<b>Men</b>	<b>Women</b>
<b>Finland</b>	no post-comprehensive education	33,0	33,6	32,6
	secondary education	39,2	41,7	36,7
	higher education	27,8	24,7	30,7
<b>Kainuu</b>	no post-comprehensive education	35,7	35,9	35,6
	secondary education	43,0	46,0	40,0
	higher education	21,3	18,2	24,4
<b>Kajaani subregion</b>	no post-comprehensive education	33,4	33,5	33,3
	secondary education	42,3	45,6	39,1
	higher education	24,3	20,8	27,6
<b>Kehys-Kainuu subregion</b>	no post-comprehensive education	40,9	40,8	41,0
	secondary education	44,5	46,8	42,1
	higher education	14,6	12,4	16,9

There are enough study places in Kainuu for all 16 years, who have graduated the primary school and continue studies either in vocational school or in upper secondary school. Among 16 years old youngsters nine out of ten continue their studies in Kainuu. Vocational studies are nowadays more popular than upper secondary school in Kainuu (Joint authority of Kainuu Region 2012).

In Kainuu there have been study places at all levels (table 4). After 2010 there are no more under graduate study places at the university level, because the university of Oulu closed the teacher education in Kajaani. The Kajaani University Consortium and Kajaani University of Applied Sciences still exist.

**Kajaani University Consortium** is one of the six University Consortiums in Finland that started in the beginning of 2004. It is a concentration of know-how formed by the university activities in Kainuu. In the University Consortium, co-operation is done with the

University of Eastern Finland, Jyväskylä, and Lapland, co-ordinated by the University of Oulu.

The mission of Kajaani University Consortium is to improve the knowledge-level of the area, and its well-being, competitiveness and university culture, by means of a customer oriented approach in fields of research, education and development. Kajaani University Consortium has two units: Adult and Continuing Education AIKOPA and Cemis-Oulu. The staff of the organization consists of 226 employees. The overall funding of the Kajaani University Consortium was 13,8 million Euros.

**Kajaani University of Applied Sciences** is a commercial enterprise, owned by the city of Kajaani. The operation started in 1992. An international learning and development community consists of approximately 2000 students and 230 experts. Kajaani University of Applied Sciences offers five Bachelor Programs and Master Programs in Finnish and also Bachelor Degree Programs delivered in English. The five Bachelor Programs are: the Bachelor's degree in Health Care (Registered Nurse or Public Health Nurse), in Sports Studies (Sports Instructor), in Engineering, in Hospitality Management and in Business Administration.

**Table 4.** Study places in Kainuu 2010 (2010 was the last year when new under graduate students start at the Teacher Education Unit of Kajaani).

Source: Joint Authority of Kainuu Region 2012.

Level of education	Number of study places
Vocational school	950
Upper secondary school	558
University of Applied Sciences	400
University	60*

\*the last new students in 2010

### 1.3 Intra-regional differences and disparities and typologies

Kajaani and Sotkamo are the only municipalities in Kainuu that have more female than male population. Kainuu has fewer children than the national average and proportion of working age women is lower – municipality of Puolanka has 10 % less female than male in this age group. The proportion of the elderly population is high, particularly proportion of old women. Ristijärvi, Hyrynsalmi and Puolanka are “municipalities of the grandmas” in Kainuu.

Table 5 shows the population according to gender in Kainuu region’s municipalities in 2010. All the municipalities in Kainuu are considerably small, only the regional capital Kajaani is slightly bigger with its 38 000 inhabitants. The distribution of men and women in total population is quite even. However in the municipality level the share of men is higher in 7 of the total 9 municipalities.

**Table 5.** Population of Kainuu Region by age and gender by municipality 31.12.2010.  
Source: Statistics Finland 2011.

Commune	Gender	All	Age					
			-14	%	15-64	%	65-	%
Hyrnsalmi	N	2736	282	10	1686	62	768	28
	f	1329	133	10	759	57	437	33
	m	1407	149	11	927	66	331	24
Kajaani	N	38157	6301	17	25186	66	6670	17
	f	19490	3105	16	12382	64	3975	20
	m	18667	3196	17	12804	69	2695	14
Kuhmo	N	9492	1196	13	5902	62	2394	25
	f	4602	564	12	2729	59	1309	28
	m	4890	632	13	3173	65	1085	22
Paltamo	N	3884	580	15	2393	62	911	23
	f	1893	287	15	1105	58	501	26
	m	1991	293	15	1288	65	410	21
Puolanka	N	3063	368	12	1867	61	828	27
	f	1481	186	13	827	56	468	32
	m	1582	182	12	1040	66	360	23
Ristijärvi	N	1513	158	10	900	59	455	30
	f	744	65	9	426	57	253	34
	m	769	93	12	474	62	202	26
Sotkamo	N	10702	1683	16	6838	64	2181	20
	f	5407	883	16	3300	61	1224	23
	m	5295	800	15	3538	67	957	18
Suomussalmi	N	9156	1100	12	5718	62	2338	26
	f	4478	539	12	2633	59	1306	29
Vaala	N	3370	481	14	2004	59	885	26
	f	1613	225	14	899	56	489	30
	m	1757	256	15	1105	63	396	23
<b>Kainuu Region</b>	<b>N</b>	<b>82073</b>	<b>12149</b>	<b>15</b>	<b>52494</b>	<b>64</b>	<b>17430</b>	<b>21</b>
	<b>f</b>	<b>41009</b>	<b>5987</b>	<b>15</b>	<b>25060</b>	<b>61</b>	<b>9962</b>	<b>24</b>
	<b>m</b>	<b>41064</b>	<b>6162</b>	<b>15</b>	<b>27434</b>	<b>67</b>	<b>7468</b>	<b>18</b>
<b>Finland</b>	<b>N</b>	<b>5375276</b>	<b>887677</b>	<b>17</b>	<b>3546558</b>	<b>66</b>	<b>941041</b>	<b>18</b>
	<b>f</b>	<b>2736860</b>	<b>434032</b>	<b>16</b>	<b>1753497</b>	<b>64</b>	<b>549331</b>	<b>20</b>
	<b>m</b>	<b>2638416</b>	<b>453645</b>	<b>17</b>	<b>1793061</b>	<b>68</b>	<b>391710</b>	<b>15</b>

The educational structure of the in-migrants and out-migrants was quite similar in Kainuu in 2010. However, in some municipalities, the educational structure of the in-migrants was higher than the education of the out-migrants, for example in Vaala, Sotkamo, Kuhmo, Suomussalmi and Paltamo. Kajaani gets persons who are less educated than out-migrants. Kajaani is the biggest city and the centrum of Kainuu with many schools at all level. Many young men and women come also from outside Kainuu to study in Kajaani. Also Sotkamo attracts young students to study in the sport upper secondary school.

## **1.4 A summing-up**

After graduated primary school at the age of 16 young people do not yet leave Kainuu region in large scale. Situation changes after the pupils have graduated the upper secondary school. The number of study places in Kainuu is too small and supply too narrow for all young, who graduate from upper secondary school.

The latest statistic shows that in the year 2010 altogether 535 young graduated secondary school in Kainuu (535 secondary school graduates). It is more difficult to get the study place in Kajaani University of Applied Sciences from the field popular among women than it is from the fields popular among men (in Engineering etc.). In Kainuu there exist no more under graduate study places at the university level.

The majority of secondary school graduates in Kainuu are women and they are more eager to run for study places at the university level. In order to get a study place at university you have to move out from Kainuu and especially women do this. For those how have graduated the vocational school it is easier to find a job in Kainuu and stay in the region. This phenomenon keeps the level of education in Kainuu lower than the average in Finland. Young people have to move outside the Kainuu in order to study at the university and majority of them do not come back after they have graduated.

## **2 Online Questionnaire with pupils**

The online questionnaire with pupils was implemented in Kainuu two times. First attempt was at the end of May 2011, but the timing was not successful because of the school year was nearly finished. Since there were no sufficiently enough answers, the questionnaire survey was decided to be repeated in August 2011 after the school year had started.

The online questionnaire was sent to all the headmasters of the upper secondary schools in Kainuu and also to the vocational school. They were asked to distribute the questionnaire to their pupils. Answering was optional and anonymous. There were 114 pupils (87 girls and 27 boys) in this sample. Answers were received from nearly all the schools, only Sotkamo and Paltamo upper secondary schools did not want to participate.

The total number of answers was 115. In total 23.7% of the respondents (27 persons) were boys and 76.3 % were girls (87

persons). In Kainuu the ratio of female pupils in the sample seems highly unbalanced with only 24% boys and 76% girls. Although the distribution of girls and boys in schools is quite even, it is not represented by the distribution of the answers in the questionnaire survey. It has been seen also in other, previous questionnaire surveys that girls are in general more willing and open to answer than boys. Main reasons for higher number of girls among the respondents are that girls are more dutiful than boys and it is more likely that girls answer this kind of questionnaire. For girls is it more acceptable to analyse their feelings and wills via this kind of questionnaire. Social expectations are different between boys and girls.

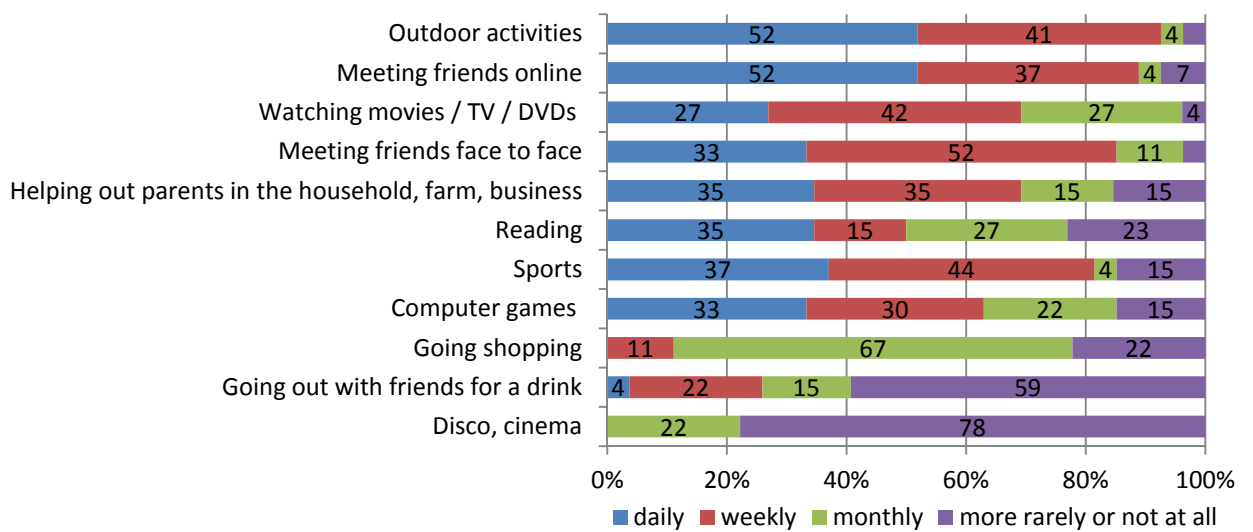
The year of birth was for 29 students 1995; 26 students 1994; 32 students 1993; 13 students 1992 and 4 students earlier. 15 students did not inform their year of birth. 71 students have lived in their current municipality in Kainuu since birth, 31 students since starting from the mid-1990 or later.

Half of the respondents' parents had vocational school education and one third of the parents either higher vocational diploma or university diploma. One fifth of the respondents' parents had only comprehensive school or high school education.

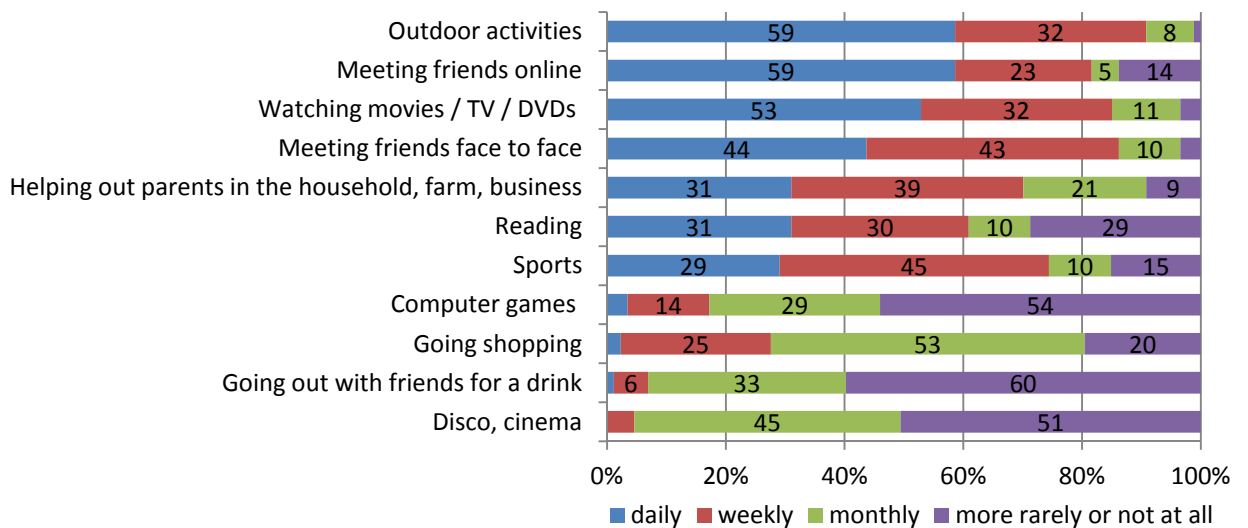
Most of the parents were employed according to the respondents, only small minority is either retired or unemployed. For half of the respondents their parents were both born in Kainuu. Over quarter informed only mother or father has born in Kainuu and one fifth stated both of the parents have been born somewhere else.

## **2.1 Way of life, local gender roles and evaluation of the local living situation**

Pupil's survey answers from Kainuu show characters of living in sparsely populated and remote area (Figures 10 and 11). It is not very usual to visit disco or cinema. Meetings with friends online are as usual as outdoor activities for both boys and girls. There are more girls and boys how meet friends online daily than those how meet friends face to face daily.

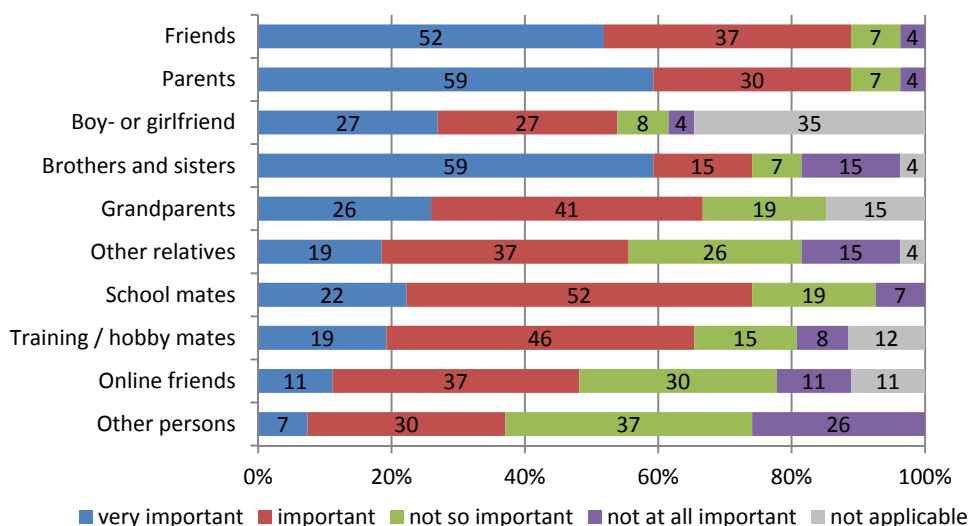


**Figure 10.** How often do you do the following things (Boys, N 27)?

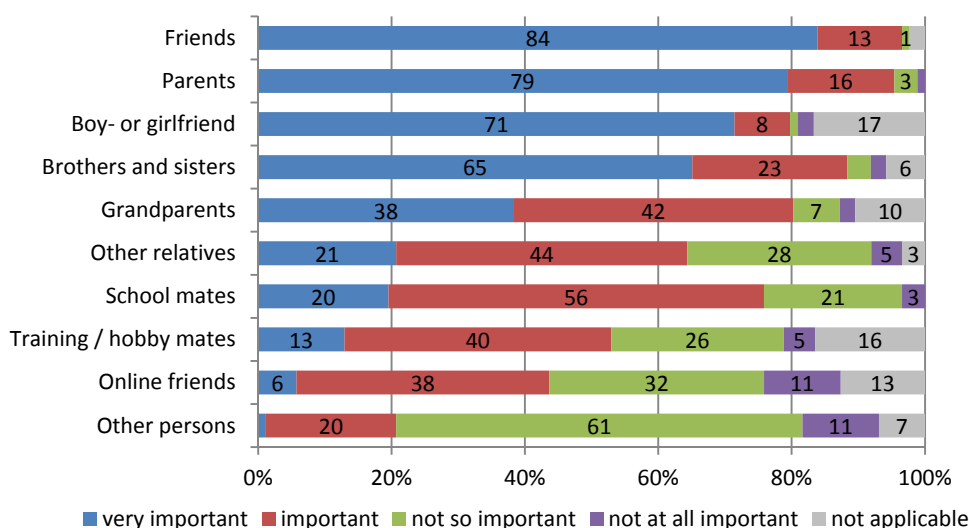


**Figure 11.** How often do you do the following things (Girls, N 87)?

Answers to the question, which persons are very important for you, which are not so important, shows very interesting differences between boys and girls. Girls are clearly keener on friends, parents and a girl- or boyfriend than boys, as the following figures (12 and 13) show.



**Figure 12.** Which persons are very important for you, which are not so important (boys, N 27)?



**Figure 13.** Which persons are very important for you, which are not so important (girls, N 87)?

With regard to **the way of life of pupils** some interesting differences between boys and girls are obvious. Girls are much more eager to experience new cultures and countries (96% fully agree or agree) than boys (76% fully agree or agree). Also for the girls family and friends are more important than money and career (from girls 99% fully agree or agree, from boys only 63 % fully agree or agree this statement). Both sexes agreed it is important for them to live in a protected and safe surrounding. Girls in Kainuu



seem to be much more enthusiastic about living in a big city than boys (50% agreed to this statement but only 26% of the boys).

Striking is that pupils disagreed strongly with statements that provide information on the regional rootedness like "Living in the countryside fits perfect to my needs and hopes" (22% from girls and 29 % from boys fully disagree) and "I think it would be very difficult for me to settle down elsewhere" (from girls 40% and from boys 43 % fully disagreed this statement). Neither girls nor boys thought it would be very difficult for them to settle down somewhere else.

When regarding the respondents' **evaluation of the local living situation** it can be seen also in Kainuu region, that girls are more critical than boys when evaluating their home region. 91 % of the girls and 76 % of the boys agree that if you want to make more of your life, you have to leave. Boys seem to appreciate the beautiful environment more than the girls whereas the girls are more attached to their friends in the region. Girls also seem to want more strongly some new free time activities than the boys.

## **2.2 Intentions to migrate, migration and social networks**

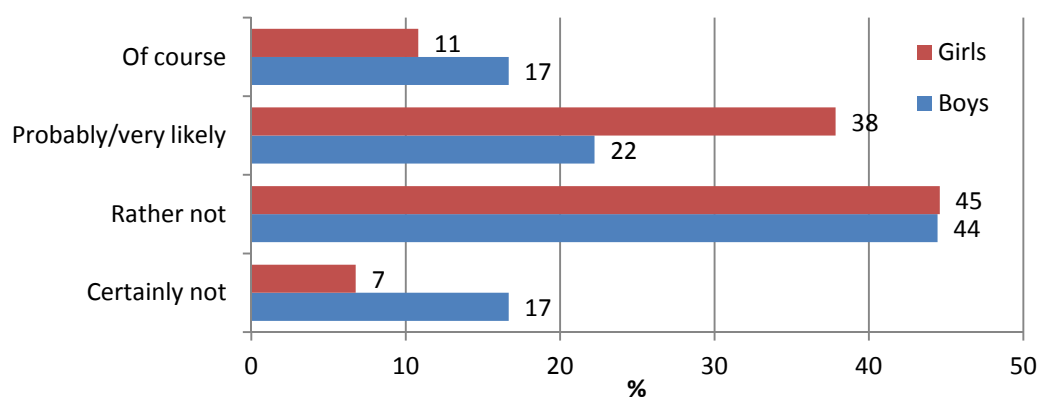
Some clear indications about the differences between boys' and girls' thoughts about moving elsewhere can be noticed from the statements "I cannot wait to leave from here" (60 % of the girls and 48 % of the boys agree or fully agree) and "the place where I live has no future" (48 % of the girls and 44 % of the boys agree or fully agree). Additional boys are more prone to fully disagree with these statements than the girls. Also the idea of moving elsewhere from their home town appears to be more sensitive for more boys than girls as is represented by this statement: "I feel very much at home here. It would be terrible if I had to move away from here" (up to 43 % of the boys agree or fully agree compared to only 31 % of the girls).

Half of the girls and boys **intend to migrate** to another region in Finland after finishing school. They mentioned mainly bigger university cities, where there are more educational possibilities e.g. Helsinki, Kuopio, Jyväskylä, or Tampere. Only 17 % of the respondents plan on staying in Kainuu. 30 % of the respondents did not know whether they will move or not after finishing school.

All in all these results indicate a very serious situation with regard to the demographic future of the region: boys and girls are both ready to leave the region. Boys, answered to questionnaire, would feel sadder if they have to leave. The university cities attract young people out from Kainuu.

These answers can be understood via current situation of Kainuu. After upper secondary school young people are often in a situation that they have to move, if they want to continue their studies. In Kainuu region there are only a limited number of places at the university of applied sciences and vocational schools, and no permanent under graduate studying places at the university. Only some temporary master program studying places are offered at the university level. The level of education has risen during last decades especially among women. In many cases girls are moving to university cities after finishing upper secondary school in Kainuu.

Among the respondents there were both girls and boys who could imagine coming back to Kainuu at some point (Figure 14). A bit surprisingly, the girls were even more willing to come back (probably/very likely will return: girls 38 % and boys 22 %). Boys on the other hand were more against the idea of returning: 7 % of the girls and 17% of the boys indicated, that they certainly won't return.

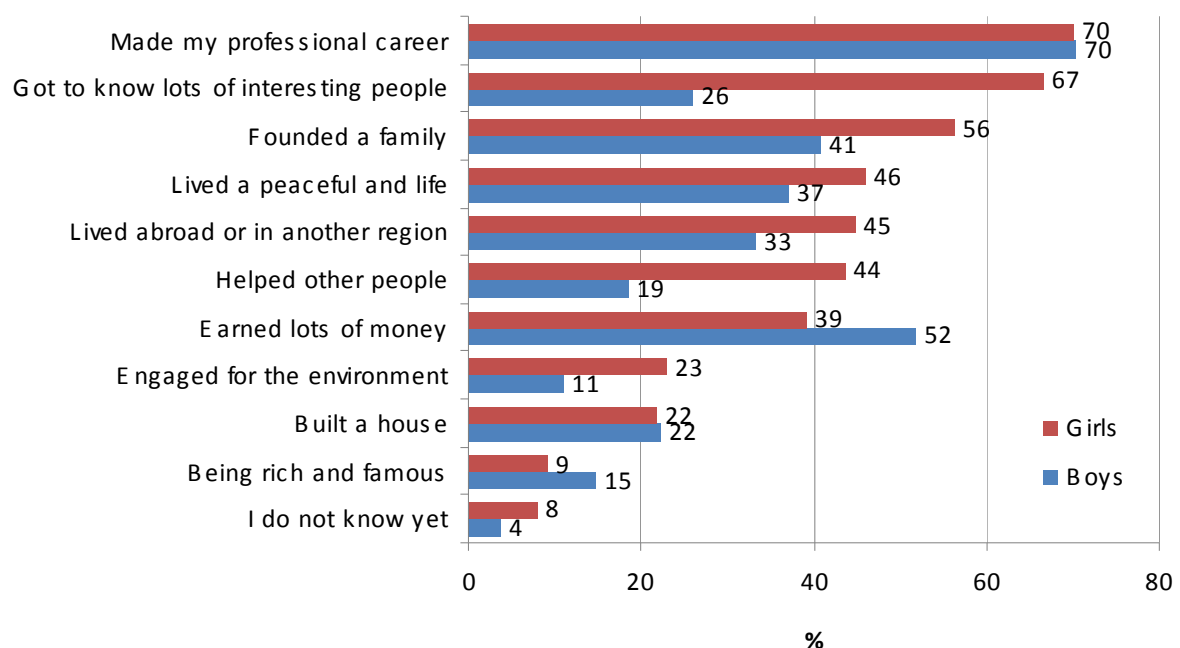


**Figure 14.** If you must or want to move away - Could you imagine to come back after some time (girls N 74, boys N 18)?

With regard to the influence of the social environment on migration decisions neither teachers nor the parents in Kainuu seem to discuss with young people about whether they should leave the region or stay there after finishing school. Rather the friends seem to advice both boys and girls to leave the region.

## 2.3 Future plans/expectations

Regarding the **future plans** both girls and boys want to raise their professional career as a key issue (Figure 15). In general, girls seem to want more things than boys. The boys' wishes appear to be oriented more to the material things whereas the girls' aspirations are concentrated on "softer", socio-cultural goals. For example meeting interesting people and founding a family are clearly desired by girls. Boys on the other hand would more often like to have earned lots of money.



**Figure 15.** What do you want to have achieved then, in 10 years from now (girls N 61, boys N 19)?

## 3 Expert interviews

### 3.1 Methodological considerations

The questionnaire survey to the experts in Kainuu region was sent to 85 respondents of which 78 were reached by e-mail. 24 % of respondents (19 persons) participated (5.9.2011). Responses were received from almost all municipalities of Kainuu. The respondents represent e.g. the Joint Authority of Kainuu, municipalities and youth workers of municipalities and congregations (table 6).

**Table 6.** Profile of experts

<b>Organisation</b>	<b>N</b>
Municipality	11
Joint Authority of Kainuu	4
Congregation / Village association	3
<b>Gender</b>	
Male	10
Female	8

### **3.2 Main results with regard to specific needs of young adults**

The Majority of the experts (63 %, N 19) in Kainuu are convinced that there are more girls than boys moving out from the region. As a main reason for that it was mentioned that girls are more actively looking for possibilities for studying outside the Kainuu region. Experts have the feeling, that among boys there are more often those how don't like to go because they are rooted to their home region and that boys are often not so keen on a certain profession and boys are more often than girls happy with the possibilities can be found from vocational school or university of applied sciences in Kajaani. It was a general belief of the experts that girls are more willing to look for a job outside Kainuu region if they cannot find the desired job in their home region.

Almost all of the experts think the main reasons for young women and men to move out from the region is a lack of suitable studying places and lack of suitable open vacancies on the labor market. Especially almost totally none exist studying places at university level drives young people out from Kainuu. They are forced to go out if they like to continue studying at university level.

All experts are convinced that young people`s moving out from the Kainuu region is a very serious problem for the region because this fosters the aging tendency of the population. On the other hand they see that moving of the young generation is important, to improve skills and to continue their studies at university level. The real challenge is perceived in finding strategies to encourage young people to come back after they have graduated. Lacking of university level education is regarded as a kind of vicious circle for Kainuu: when there is no under graduate university education, young have to leave and there is a lack of high skill entrepreneurs and labor demand for highly educated. Also there are open vacancies for highly educated, like doctors, for which there are heavy difficulties to find experts. Those experts educated and

graduated elsewhere are not very keen on moving to remote Kainuu region.

All experts (N 19) estimated that young people moving out from Kainuu region are moving especially to the cities where head campus of some university is located. Also according to the statistics the majority of young boys and girls are moving to the university cities, like Oulu, Kuopio or Helsinki.

Approximately half of the experts are very critical about the future of young people in Kainuu. The other half of the experts are more positive. The main reasons for pessimistic visions are the bad demographic situation and trend in Kainuu and the lack of education possibilities for young as well. The main reasons for more optimistic visions are the aging, which will release new vacancies for young people and the growing business fields like mining and tourism, which will create new vacancies and career positions for young in Kainuu region.

The clear majority of respondents believe young would stay in Kainuu if there were study places for them. Also most of the experts believe more open job vacancies would keep young boys and girls in Kainuu. Also all of the experts (except one out of 19) believe young people would come back after graduated if there are available suitable jobs for them (Tables 7 and 8).

**Table 7.** Do you believe young would stay in Kainuu if there were study places for them?

	N	%
Very likely	3	16
Fairly likely	14	74
Fairly unlikely	2	10
	19	100

**Table 8.** Do you believe young would stay in Kainuu or return to Kainuu if there were jobs for them?

	N	%
Very likely	7	37
Fairly likely	11	58
Fairly unlikely	1	5
Total	19	100

## **4 In-depth interviews with young women**

### **4.1 Methodological considerations**

Overall there were eight interviewees (see table 9). Two have lived their whole lives in Kainuu; one has lived only in Kajaani and other one in Kajaani, Paltamo and Kuhmo. Eight interviewees have not lived their whole lives in Kainuu. One of them was born in Kajaani, but she studied in Jyväskylä and got back in Kainuu after that. Nine of the interviewees lived in Kajaani and one interviewee in Sotkamo at the moment of interview. Ages of interviewees varied between 25 and 35 years, four of them were under 30 years. AIKOPAs researchers' local knowledge and networks have been used for the choice of the interviewees. Classification to one of the groups (remigrants/immigrants or stayers) was made by asking them about their backgrounds.

**Table 9. Profiles of the participants of the in-depth interviews.**

	<b>Job situation</b>	<b>Family situation</b>	<b>Migration biography</b>	<b>Key motives</b>
<b>Inmigrant</b>	Unemployed	Single, no children	Came to study in Kainuu	Because of study place
<b>Inmigrant</b>	Employed	Live with the partner and have children	Came to work in Kainuu	Because of work place
<b>Inmigrant</b>	Employed	Live with the partner and have children	Came to work in Kainuu	Friends, family, job motivated
<b>Reimmigrant</b>	Employed	Live with the partner and have children	Childhood in Kainuu, after studies elsewhere returned to Kainuu	Came with her man
<b>Reimmigrant</b>	Unemployed	Live with the partner and have children	Born in Kainuu after graduated from university returned to Kainuu	Because of work and family
<b>Reinmigrant</b>	Employed	Single, no children	Born in Kainuu after graduated from university returned to Kainuu	Many personal reasons
<b>Stayer</b>	Employed	Single, no children	Always lived in Kainuu	Kainuu is ok for living
<b>Stayer</b>	Employed	Live with the partner and have children	Always lived in Kainuu	Kainuu is ok for living

## 4.2 Main results

### Remigrants and immigrants

When asked, if the interviewee has noticed, that there are fewer males than females in the Kainuu, seven interviewees said, they have not noticed any difference between the amount of males and females. One interviewee said, that she has noticed, that there is more males than females, but she thinks, that it might be partly because of her hobbies (ice-hockey referee) and working in a vocational school and that might affect on hers stance. She said that in a university (faculty of education, the Department of Teacher Education in Kajaani) there were much more females than males.

On the other hand there is approximately same amount of boys and girls in a school, so the stance is varying depending on the place and time. One of the interviewees said that closing down the Department of Teacher Education in Kajaani will decrease the amount of young females, because there will not be as much of young females migrating to the region of Kainuu. Two of interviewees said that males might be more domicile devoted than females and there might also be more leisure opportunities and work for males than females.

When asked if the female friends of interviewee, aged 15-30 years, have moved out from Kainuu, six interviewees said that their friends had been moving out from Kainuu. Work or education was the crucial reason. Critical points were when the mover has graduated from a secondary level of education or higher education and there are no interesting educational opportunities or work. In most cases the young female moves to larger cities (Oulu, Jyväskylä, Tampere, Helsinki or Turku). One of the interviewees said, that friends of her are now moving back to Kainuu, when they are starting a family or found work. One interviewee said that she has moved in Kainuu at the age of 20 after the high school, so her friends are former students or colleagues and they have not moved out from Kainuu.

When asked if the interviewee has male friends or members of family who have moved out from Kainuu and was there any difference between male and females, four interviewees said that there were no differences in reasons of moving out. Two interviewees said that men move because their wife or girlfriend moved. Two interviewees said that men implement military service or education from home, so the only difference was the age at time when they move out. Males move out from Kainuu older than females. Work in IT-sector was the main reason for male to move out from Kainuu said one interviewee.

When asked if interviewee knew any young males or females that have returned to Kainuu, all eight interviewees answered, that they knew. Five interviewees said that born of children was the reason for return, two interviewees out of five refined grandparents as the main reason. Also two interviewees mentioned work as a reason for moving back to Kainuu. Two interviewees said that it was a good idea to move back, one did not think so.

Interviewees were asked about the main reasons for moving/moving back to Kainuu, four interviewees named education and two named work. One interviewee moved back to Kainuu



because of her husband moved here. Interviewees were asked if they describe people in Kainuu open and receptive towards new residents. Five of them said that people in Kainuu are not very open and receptive. Two interviewees said that it is hard to say, because they were remigrants and one wondered that because of starting in the Department of Teacher Education in Kajaani, the situation was different. Most of the teacher students moved at the same time to Kajaani and were in the same situation, so it was easy to find friends. When asked if it was easy to move in Kainuu, seven interviewees said that it was easy. One interviewee said that it took time to find friends.

Six interviewees were at work, one was home with a baby and one was studying at the university. Five interviewees said that work or studying place was near home and two interviewees had 40-60 kilometres to work. When asked where they have found the current job, three interviewees named the employment office, two were asked to the current job and one interviewee was first in a practical training and got a job after that. Five interviewees applied for other jobs at the same time, one did not remember anymore. Two interviewees said that they used personal relationships to get a current job. Five interviewees would have continued the search for finding a job, if they had not received the current job.

Neither of the interviewees, who were unemployed, was actively searching for work. One was currently studying and will graduate at spring 2012. She was looking for teacher posts for the next fall and outside of Kainuu. The other one was home with a baby, but she was planning to return to the teacher next fall.

Five interviewees were in a relationship and they all lived with their husbands. Three of them thought that husband was more rooted in Kainuu; one thought that they were equally rooted and one interviewee was more rooted than her husband to Kainuu. Three interviewees were single.

Interviewees were asked if their husbands were at work and four were. All of them see every day, although one husband had a work trip more than 50 kilometres. Four couples had a child or children and two couples did not have. All interviewees said that Kainuu is a good place for a child to grow up. They all say that it is hard to know how the future is here in Kainuu and children should do their own decisions. Maybe children need to study somewhere else and decide after that if they want to move back to Kainuu.

The nature is the most important thing in Kainuu for three interviewees and two said that they like calmness of Kainuu. Three interviewees mentioned that Kajaani is a good place to live with small children. Smallness of the living place and short distances were mentioned by five interviewees. Seven interviewees said that there is no difference between the gender and how easy it is to live in Kainuu; one interviewee said that it might be easier for males to live in Kainuu because males might get easier a job and there might be more leisure activities for males (for example fishing and hunting).

Interviewees wished better educational opportunities (higher education especially) and more jobs. They also mentioned there should be good and affordable public transport. Also there should be more events, culture, shops, cafes and pubs. One interviewee also mentioned that the night life could be more active.

## **Stayers**

Neither of the interviewed stayers had noticed that there were more males than females in the region of Kainuu. Both interviewees said that their female friends, aged 15-30 years, have moved out. If they were leaving to study, critical points were after primary school or after secondary level of education. They moved to cities, which offer that kind of education which is not offered here in Kainuu. Most of them have also stayed at where they studied. If a female stayed here to study, the next critical point is after graduating. If there was no work, then they had to move out. Two interviewed stayers said that their male friends have not moved out as often as their female friends. One interviewee thinks that male more often moved because their girlfriend or wife was moving out.

Both interviewed stayers interviewees knew young females or males that have moved back to Kainuu. One interviewee said that employers are more willing to hire a person that has worked in Southern Finland; they have "growth interest" and qualified there. She also thought that returnee wants to get near his/her family (grandparents) if they have got children. Both interviewed stayers thought that returning of their friends to Kainuu was a good idea.

When asked if they have ever thought that they would leave Kainuu, they both said that they have. One had thought that she would move to Oulu and other had thought moving to Oulu or Helsinki. For both of them the time of higher education was a time for evaluation where they would want to live after graduation. Other

was also considering moving after graduation when there was no work in Kainuu.

One interviewed stayer said that people in country side are more open and receptive than people in Kajaani. Other thought that people in Kainuu are maybe a little introverted. She also thought that people in Kainuu are at present more open than they used to be.

They both were working and the work was near or quite near of their homes. One of interviewees found recent job from a job advertisement in a newspaper or from an employment office. If she would not get current work, she thought about moving to another place to study (Iisalmi). Other interviewee was asked to the current job, at that time she was on a fixed-term contract.

One interviewee is married and they both are from Kainuu so they are equally rooted. Other one lives together with her boyfriend. She thought that her boyfriend is more rooted to Kainuu than she. Both of their partners are working. Other has to travel only couple of kilometres to work, other has about 30 kilometres. Both couples see daily. Neither of interviewed stayers had children, but they have thought about it. Both of them would encourage their children to explore and live in different places and then decide if they want to live here in Kainuu.

When asked what things they like about Kainuu, both mentioned nature and short distances. One thought that it is easier for females to live in Kainuu; other thought that it would be easier for males. Both based their opinions on by saying that there is more work for males/females. Both interviewees wished more events to Kainuu. One interviewee also listed the lack of shopping opportunities, work and study places. She was also concerned if she or her boyfriend would lose their work, it would not be easy to find a new one and they might need to move away from Kainuu.

### **4.3 Conclusions**

Between the interviewed remigrants, migrants and stayers could not be found significant differences. Neither group had noticed clear difference between the number females and males in Kainuu. Friends of both groups had moved out for similar reasons (education and work) and to the larger cities. Both stayers had considered moving away from Kainuu. This was due the lack of a suitable education or work.

Some interviewees thought that men are more rooted to Kainuu than women. The interviewees thought that this may be due a

better work situation and leisure activities. Some interviewees did not see any difference between the genders home region loyalty. It is possible that male live longer home and because of that they are older when they move out from Kainuu. They might also be moving because of their girlfriend or wife is moving out.

The interviewees said that their friends returned to Kainuu at the time of starting a family if they found work. Many of the interviewees said that being close to the grandparents ease family life. Interviewees thought that Kainuu is a great place to raise children. The interviewees appreciated the Kainuu nature, leisure activities, short distances and calmness. Interviewees wanted more events and shops to Kainuu. Some interviewees also wanted more lively evening and/or night life. There were no significant difference between the answers of remigrants/migrants and stayers.

## 5 Results of the SWOT

The SWOT analyze of Kainuu bases on expert survey made in the autumn 2011 and regional expert meeting hold in Kajaani at 16.12.2011. In the expert panel there were 15 experts from different fields public regional administration. Before the meeting the researcher of AIKOPA formulated some ideas concerning all four dimensions of SWOT. These ideas based on expert survey. The findings of the SWOT based on the expert panel can be described as follows.

### **Strengths of the Kainuu region with regard to female living conditions**

An aging population and labour force retirement will open a lot of jobs (in particular "women´s jobs" in social services and health care. This will improve the situation of young people in the labour market. There are also new, emerging sectors in Kainuu; hopefully they will create jobs.

The living environment is safe (for families), living costs are affordable, services functional and distances short. There is still higher education in Kainuu (best university of applied Sciences) and there are some bold openings in educational sector. The environment is clean and there are plenty of free time activities.

### **Weaknesses of the region with regard to female living conditions?**

Field of education is narrow, people are moving out from Kainuu for studying. There is not anymore university education. Educational sector needs ability to network (new partnerships) and willingness to develop the educational sector.

The lack of jobs is a serious weakness, especially lack of jobs for academically educated labour. The sectors strategically pointed out (game industry and mining) are male-dominated and development of them may foster segregation in the labour market.

Women more often than men use the public transport. Women are also missing fast and low cost public transport system, which do not exist in Kainuu.

The future of Kainuu is unknown and people do not see the possibilities of Kainuu. There is not enough information about the possibilities for young people. Critical mass is small, few young people far from each other, so the atmosphere could be inspiring

and active in Kainuu. There are not enough possibilities for young people to affect to the future, there is too much intolerance and there are not enough development measures towards women.

### **Main opportunities of the case study region with regard to female living conditions?**

The region of Kainuu is committed to the development. International trends favour development of tourism and mining industry. "Greening" of values might open new opportunities to develop tourism. The extract in the region is innovative and stimulating at the moment. The proximity of Russia might also allow new openings.

Emerging, new sectors and aging of population will open a lot of jobs. This could make it possible to remigrate to Kainuu. The people that return to Kainuu are valuable. They have work experience and they could bring new ideas to Kainuu. There are also lot of new, young entrepreneurs in Kainuu.

### **Main threats of the case study region with regard to female living conditions (*the threats caused by young people, especially women, moving away from Kainuu*)**

If young people move out from the province and the regional bond decreases, the probability to return is reduced. This progress might eventually lead to shortage of (skilled) labour. That might also mean that the average age of the population in Kainuu rises. Demand for services for older people is growing and there is fewer and fewer young people working and paying taxes, so the sustainability gap increases.

Reduced amount of young people would probably mean that there are fewer and fewer services for adolescents and young adults, services declines and focus (including services for young people) and youth culture becomes thinner. If the smartest young people are leaving, there will be lack of innovators and developers and the amount of highly skilled professionals is decreasing. Aging population might also mean that it holds back changes in thinking and operating models. If there are no young adolescents, the birth rate and the number of children are decreasing and there will be lack of pupils. This might eventually mean that educational structure collapses.

Environmental problems caused by mining industry might harm the image of the region and are risks for other business sectors like tourism. Also global environmental changes, like global warming, are challenges for nature based business like tourism. Centralization development in Kainuu might culminate differences in inner

development of Kainuu, some remote regions are dying-out. Centralization in Finland harms Kainuu as remote and sparsely populated area and fosters the negative trends of Kainuu, outmigration and aging.

The results of SWOT analysis can be summarized in the following tables, which include also impacts on young women's migration of all these four dimension of the SWOT.

**Table 10.** SWOT-analysis for Kainuu based on the SEMIGRA scheme

Indicators	Strengths	Weaknesses	Opportunities	Threats
<i>Basic preconditions with impact on migration</i>	<i>Characteristics, preconditions, facts</i>	<i>Characteristics, preconditions, facts</i>	<i>Characteristics, preconditions, facts</i>	<i>Characteristics, preconditions, facts</i>
<b>Economic structure</b>	<p>An aging population and labor force retirement opens a lot of jobs Situation of young people is improving in the labor market</p> <p>New, emerging sectors create jobs</p>	<p>Vulnerable to shocks caused by external decisions</p> <p>Segregation in the labor market</p> <p>the sectors strategically pointed out (game industry and mining) are male-dominated</p> <p>Lack of information about the possibilities in Kainuu</p>	<p>The international trends favor development of tourism and mining industry</p> <p>Responsiveness to development of region</p> <p>Large possibilities for citizen participation in Kainuu</p> <p>Special attention to young people in decision-making and practices</p> <p>Capitalising the strengths in Kainuu; Network services</p> <p>The proximity of Russia!</p> <p>Remigration; returning emigrants</p> <p>The rising phenomenon of young entrepreneurs; change of generations in companies</p> <p>Dismantling segregation (open jobs)</p>	<p>Shortage of (skilled) labour</p> <p>Declining private and public services for young people</p> <p>Decreasing amount of highly skilled professionals</p> <p>The birth rate and the number of children decreases</p> <p>Sustainability gap increases</p>



<b>Ethos of the region</b>		<p>Lack of inspiring and active atmosphere, lack of believe that "we can"</p> <p>Critical mass is small, few young people and far from each other</p> <p>Poor acceptance of diversity (intolerance)</p> <p>Possibilities for young people to affect to the future; Social exclusion of young people</p> <p>Lack of measures towards women</p>	<p>Region's commitment to the development</p> <p>Innovative and stimulating extract from the region</p>	<p>Youth culture becomes thinner</p> <p>Lack of innovators and developers</p> <p>Changes in the age structure holds back change in thinking and operating models</p>
<b>Educational structure</b>	<p>The Kajaani university of applied sciences</p> <p>Kajaani university consortium</p> <p>All young people is offered a place at the secondary level of education,</p>	<p>Missing undergraduate university education</p> <p>Narrow field of education</p> <p>Lack of jobs for academically educated</p> <p>Lack of ability to network and will to the development of education</p>	<p>Sport related education: sport academy, garrison in Kainuu</p> <p>Strong and large garrison in Kainuu</p> <p>The Kajaani university of applied sciences</p> <p>Kajaani university consortium</p> <p>Secondary level of education including vocational schools</p>	<p>Possibility of closing the university of applied sciences and university consortium</p> <p>Educational structures collapse, changes in funding models</p> <p>Lack of pupils</p>
<b>Environment</b>	<p>Nature based free time activities</p> <p>Familiarity security and clean environment,</p>	<p>Remote and sparsely populated area (image and reality)</p>	<p>Greening and return to nature as international trends</p>	<p>Environmental problems caused by mining industry</p> <p>Global environmental changes</p>
<b>Image</b>	<p>Clean environment</p> <p>Safe and compact living environment for families</p>	<p>Small and remote region with restricted educational and labor market possibilities</p>	<p>International trends: a return to nature, spiritual values and sustainable development fit well to Kainuu`s image</p>	<p>Environmental problems caused by mining industry</p> <p>Global warming</p>

				<p>Lack of innovators and developers</p> <p>Changes in the age structure holds back change in thinking and operating models</p>
<b>Settlement patterns</b>	<p>Safe living environment</p> <p>Compact living environment (in population centres)</p>	<p>Lack of fast and low cost public transport</p> <p>Poor private and public services in remote areas</p> <p>Bad accessibility to services, especially at the remote areas</p>	<p>Good possibilities for sport and wellness activities outdoor</p>	<p>Centralization development</p> <p>Some remote regions are dying-out</p>
<b>Cultural activities</b>	<p>Strong and wide culture supply in Kainuu</p>	<p>Thin youth culture</p>	<p>Diversified culture</p>	<p>Youth culture becomes thinner</p> <p>Some pieces of culture die because of the aging and out migration</p>

**Table 11.** Outcomes of SWOT to young women's migration in Kainuu

<b><i>Strengths: Outcomes</i></b>	<b><i>Weaknesses: Outcomes</i></b>	<b><i>Opportunities: Outcomes</i></b>	<b><i>Threats: Outcomes</i></b>
<p>In-migration of young people (especially young women) as an effect of changes in labor market</p> <p>High attractiveness of environment and region</p> <p>Fertility rates rising. Natural population increase.</p> <p>New vacancies for young people in public and private sectors</p> <p>The Kajaani university of applied sciences Kajaani university consortium remain and offer studying possibilities</p>	<p>Out-migration of young people and an unbalanced population structure as an effect of internal as well as external factors and bad image, "sparsely populated remote area with only few possibilities"</p> <p>Low share of children</p> <p>Natural population decrease.</p> <p>Strong ageing of population</p> <p>Segregation in the labor market continues, lack of female vacancies</p> <p>Only restricted labor market possibilities</p> <p>Lack of hope, poor acceptance of diversity, lack of possibilities for young people to affect to the future</p> <p>Social exclusion of young people</p> <p>Even smaller critical mass</p> <p>No undergraduate university education causes lack of jobs for academically educated</p> <p>Low attractiveness of the region</p>	<p>In-migration of especially (young) families as an effect of internal factors.</p> <p>High attractiveness of environment and region. International trends foster Kainuu's image</p> <p>Remigration, returning emigrants are moving back to Kainuu, because of large amount of open vacancies</p> <p>The rising phenomenon of young entrepreneurs create wellbeing and new jobs, new generation take over the small and medium size companies</p> <p>Dismantling segregation open jobs for women and for men</p> <p>Educational possibilities remain and wider in all level in Kainuu region and attract young to Kainuu and make it more likely to stay there after secondary school</p>	<p>Accentuated out-migration of young people especially young fertile women as an effect of internal and external factors.</p> <p>Shortage of labor</p> <p>Private and public services decline</p> <p>Decreasing amount of highly skilled professionals</p> <p>The birth rate and the number of children decrease</p> <p>Strong ageing of population increases sustainability gap of economy. Lower share of children and higher share of the very old, care problems.</p> <p>Youth culture becomes thinner. Smartest young people leave, which means lack of innovators and developers</p> <p>Thinking and operating models do not develop</p> <p>Educational structures and service structures collapse meaning even less possibilities. Vicious circles. Centralization development and dying-out regions.</p> <p>Internal and external environmental problems ruin the environment and harm image of the region and some business sectors like tourism</p>

## **6 Scenarios: possible futures for the region**

Based on the all research material used in the Kainuu case of the Semigra project we have formulated two different scenarios of Kainuu 2040, which present possible and alternative futures related to young women`s immigration`s impacts on region. The first scenario is the positive one and the second scenario is negative one. Both scenarios simplify the reality and show what could follow if the ultimate options come true (see for example Heikkinen et al 2010).

### **6.1 Scenario one: Sustainable and vitality Kainuu 2040**

Educational structures of Kainuu exist and work well. Secondary school system has maintained. Educational possibilities remain and wider at all level in Kainuu region and attract young to Kainuu and make it more likely for youngsters to stay there after secondary school. Sport academy of Kainuu is very popular and attracts many (winter) sport junior athletes to study in Kainuu at the secondary level.

The Kajaani University Applied Sciences and Kajaani university consortium remain and offer studying possibilities. They work together and do intensive co-operation. Also among university there are studying places for under graduate students. The under graduate university studying places are organized via master graduate programs. Master programs are funded partly by EU and organized by the universities operating in Kainuu region under the umbrella of Kajaani University Consortium. The Kajaani university of applied sciences and Kajaani university consortium strongly market their possibilities for young men and women in Kainuu. Master programs of the University Consortium and under graduate education programs of Kajaani University of Applied Sciences produce experts needed in labor market in Kainuu. The experts have educated for health and social sector, for environment management, for mining industry, for game industry and for sustainable tourism etc. Both men and women are interested in these education programs. These new possibilities make it more likely for young men and women to stay in Kainuu.

Segregation in labor market has been partly dismissed and this has opened new possibilities for women and men in new fields. Aging of the population has opened vacancies in labor market and growing sectors have created new jobs in the Kainuu region. These phenomena have fostered in-migration of young people, men and

women, to Kainuu. Fertility rates rise and natural population increases.

Lack of key experts, like doctors, is still a problem, but partly it has been solved by organizing the health sector mostly by the state instead of municipalities. Even if services are mostly centralized to Kajaani, many technical innovations help to organize services also to remote areas of Kainuu. Also the remote areas of Kainuu have remained inhabited.

Environmental problems caused by mining industry in Kainuu have mostly been solved. Mines are no more critically polluting the surrounding. Because of bad environmental problems some mines have been partly closed. This has positively affected to the state of environment in Kainuu and to the image of the region. High attractiveness of region has positive impacts on immigration as well as on tourism.

## **6.2 Scenario two: strongly aging and contradictory Kainuu 2040**

Aging of the population has opened vacancies in labor market in Kainuu but great deal of public sectors` vacancies has closed in Kainuu. Mining industry offers new jobs but in many cases they have been run by employees permanently living outside Kainuu and only partly living in Kainuu.

Out-migration of young people has continued and created very unbalanced population structure, where people in high age are the clear majority. Fertility and share of children are low and population decreases strongly. Strong ageing of population has dramatically increased sustainability gap of economy. Also a high share of the very old people has caused lot of care problems.

The Kajaani University of Applied Sciences is no more independent. In Kainuu there are some educational programs of the University of Applied Sciences, but people graduating from these in most cases cannot find any working vacancies from Kainuu. University consortium does not exist anymore. There are only some adult education services at the university level in Kajaani.

Environmental problems of mining industry still exist and because of these problems some mines are closed and mining industry do not offer so many jobs in Kainuu anymore. Environmental problems have harmed the image of Kainuu and attractiveness of the region. The development has fostered the image of Kainuu as a sparsely populated remote area with only few possibilities, like tourism and mining industry. Tourism is doing quite well but also it has suffered

from the environmental problems and bad image of the region. Also climate change has caused harm to nature based tourism activities.

The interregional centralization has been very strong and many remote areas have totally uninhabited. The lack of key experts like doctors remains as a crucial social problem. Services are almost totally centralized to Kajaani and outside Kainuu to Oulu and some other big cities.

## **7 Summary and policy recommendations**

### **Conclusions**

The own university is one common key character with the city regions positively developed and grown in Finland. Somehow developing the University of Applied Sciences and university activities via Kajaani university consortium are critical issues for the future of the region and for the possibilities of young people to stay in Kainuu. At the moment the Department of Teacher Education in Kajaani is the only place offering university education and it will be closed at the summer of 2013. New masters' degrees at the University of Applied Sciences are also very important for the future of Kainuu region.

There is a lack of jobs for the highly educated in Kainuu. On the other hand there are difficulties to fill open vacancies for highly educated. This tells that it is not easy to attract experts and highly qualified to Kainuu. The image of Kainuu is an image of a remote and small area and the marketing of the region is challenging.

Without enough education places at the university level, it is very difficult to keep young people in Kainuu after they have finished upper secondary school. The lack of undergraduate studying places at the university level makes it also more difficult to find highly educated experts to open vacancies.

Intentions of outmigration are very widespread among young people, among girls more than among boys. At the same time it is a surprising result that young people feel that neither teachers nor parents do not give advices or discuss with them about future perspectives in the region. Friends seem to advice to leave the region in most cases.

Some interviewed young women and experts thought that men are more rooted to Kainuu than women. This may be due a better work situation and leisure activities for men. Men living in Kainuu do often blue collar work and are happy with the work and their life. In Kainuu are also good possibilities for leisure activities like fishing and hunting and other outdoor activities, which attract more men than women.

### **What have Kainuu region to offer?**

Interviewed young ladies as well as experts on survey mentioned many strengths of Kainuu region as a living place. Interviewed young women thought Kainuu is a safe place for children and appreciated possibilities for leisure activities in Kainuu. Beautiful livelihood and pure nature was mentioned many times as well as peacefulness of Kainuu. Short distances from home to work and services were mentioned; especially those how live in Kajaani mentioned these as good sides of region. Smallness of the living place is also a character, which was pointed out. In general Kainuu was characterised as an attractive place to live.

### **Policy recommendations**

Policymakers and civil servants of Kainuu have to do all they can to maintain and develop the education structures in Kainuu. Especially educational possibilities at the university and university of applied sciences in Kainuu are important.

Kajaani university consortium and University of Applied Sciences have to develop master programs which produce experts needed in the region. Adult and continuing education unit in Kajaani should be more active in developing new master programs.

Kajaani University of Applied Sciences has also strongly market and develop the possibilities to reach master degree also at the University of Applied Sciences.

Kajaani university consortium has to develop a common bank of thesis, which organizes university students to make thesis for employers needs in Kainuu. These students could come from all universities operating in the university consortium.

Kajaani University of Applied Sciences has to develop strongly also the education programs which are popular among women.

Joint authority of Kainuu has to start new efforts of dismantling segregation in the labor market and education in Kainuu. This "opens" new jobs and studying places for women and for men.

We have to find solutions for environmental problems caused by mining industry in Kainuu. In the long run these problems can seriously harm the tourism. Mines start and end but tourism destinations, like Vuokatti in Kainuu, are permanent and everlasting sources of income.



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