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POPULATION AGING AND CHANGES IN THE AGE STRUCTURE OF SLOVAKIA

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Abstract
Population aging and changes in the age structure of Slovakia
The age group structure of the population in the districts of Slovakia was highlighted by means of an analysis of the three big age groups: 0 – 19 years, 20 – 64 years and 65 years and older. The paper reports on the development of the characteristics of the burden carried by the productive population in consequence of the demographic ageing of population in the conditions of the Slovakian regions. The main task of the paper was the identification the tendencies in age structure of Slovak population. Statistical methods and mathematics proceeding are used to compare different parameters age structure (e. g. index of ageing, youth dependency ratio etc.). That can be the ageing process as well as the forming of the population age structure considered as a demographical phenomenon with a fairly high degree of complexity. The results of the study will enhance the knowledge about demographic characteristics of Slovakia and therefore might be useful for further research in the field.

Key words
Age structure, Slovakia, pre-productive population rate, population ageing.

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1. Introduction

The analysis of population structure of Slovakia in terms of age groups in the selected time span (1945 – 2009) highlights the gradual rise of the elderly population's ratio, the main cause being the enormous social-economic differences in all Slovak regions during the transformation period (last decade of 20 century). The aging changes in population of Slovakia have been influenced by transformation of post-communist countries in Eastern Europe.

From the wide spectrum of the population study topics is the paper oriented on the structure of the population in terms of age groups to the assessment of human capital, which is affected to the formation of a new model of reproductive behavior characterized by the sudden decline of the natural population growth and of the reproduction rates to levels that do not provide for the self-reproduction of the population.

In principle, we can agree with this statement, however, we must note that this facts is very much influenced by long-term demographic behavior and family behavior of the regions which, as many authors (Van de Kaa 1987, 45; Pastor 2002, 50) indicates, are manifested in their ability to accept second demographic transformation difficulties. In Slovakia, the changes in demographic behavior are visible most significantly in three interrelated areas – reproductive behavior, the family behavior and ageing of the population (Mládek, Káčerová 2008, 194).

2. Methodology

In demography two traditions in studies on the process of population aging exist: first, studying the population aging process of changes in population age structure consisting in the growth in number and share of aged population in the total population (Fratczak 1993, 15).

The second tradition in studying the process of population aging consists in examination of broadly understood changes in aged subpopulation. These studies refer to examination of changes in the aged population according to different demographic and socio-economic characteristics. A distinction is made between those who are between 65 – 74 (young-old) and those 75 years and over (old-old). We used both aspects of studying the aging of population.

The assessment of the population structure in terms of age groups and gender was analyzed in several works (Matlovič 2005, 152; Stoica et al. 2010, 106). The structure of the population in terms of demographic ageing and the development of burden carried by the productive population are relevant to the assessment of human capital, but also to identifying the capabilities to support economic activities that involve certain workforce characteristics (related to age, skills and training levels among others).

Several authors (Kovář, Říhánek 1995, 110; Mládek, Marenčáková 2003, 289; Vošta, Minařík 2007, 5; Svatošová 2008, 705; Mládek, Káčerová 2008, 192; Dufek, Minařík 2009, 265 and Bucher 2010, 207) were writing about the aging and age structure of Slovakia as well as other post-communist countries in the sense.

Another approach to the study of population aging process is studying the process as connected with the demographic transition. This type of consideration can be found in the works of: Klinger (1988, 65), Warnes (1989, 55), Myers (1990, 215). Valkovics (1990, 30) emphasizes that aging under demographic transition is connected transition from the stage of fertility-dominated population aging to the mortality-dominated stage of population aging.

The assessment of the age structure of Czech and Slovak inhabitants according (Kovář, Říhánek 1995, 112) and other demographic experts is usually represented by the relative expression, i. e. the ratios of three basic age groups. The methodology for calculation of the selected demographic indicators (Dufek 2006, 70):

- Ageing index specifies the proportion of the post-productive and pre-productive population.

Economic limit:

$$I_{AGE\ (ec)} = \frac{P_{(65+)}}{P_{0-19}} X\ 100$$

-Age index specifies the proportion of pre-productive and post-productive population.

Economic limit:

$$I_{AGE\ II(ec)} = \frac{P_{(0-19)}}{P_{(65+)}} X\ 100$$

- Youth dependency coefficient – the coefficient of the burden on the productive population imposed by the pre-productive population with critical economic age limits.

Economic limit:

$$C_{D(y)} = \frac{P_{(0-19)}}{P_{(20-64)}} X\ 100$$

- Old age dependency coefficient – the coefficient of the burden on the productive population imposed by the post-productive population.

Economic limit:

$$C_{D(old)} = \frac{P_{(65+)}}{P_{(20-64)}} X\ 100$$

- The coefficient of total burden – the coefficient of the burden on the productive population imposed by the pre and post-productive population.

Economic limit:

$$C_{D(ov)} = \frac{P_{(0-19)} + P_{65+}}{P_{(20-64)}} X\ 100$$

- The inflow coefficient – defined as a proportion of the part of the pre-productive population which is just entering to the productive population.

Economic limit:

$$C_{in} = \frac{P_{(20-24)}}{P_{(20-64)}} X\ 100$$

- The outflow coefficient – defined as a proportion of the part of the post-productive population which is just about to leave the productive population.

Economic limit:

$$C_{out} = \frac{P_{(60-64)}}{P_{(20-64)}} X\ 100$$

We used following formula for calculating typology of population ageing in districts of Slovakia - 2009:

$$I_{xi} = \frac{(X_{max} - X_i)}{(X_{max} - X_{min})}$$

If decreasing X_i agrees with the favorable state of observed phenomenon

$$I_{xi} = \frac{(X_i - X_{min})}{(X_{max} - X_{min})}$$

If increasing X_i agrees with the favorable of state of observed phenomenon.

3. Results and discussion

The age structure of the population is usually determined on the basis of the number and proportion of the population divided into three main age categories groups defined in relation to the approximate start and end of economic activity at the age of 15 at present usually 65. In our article we compare following age groups: 0 – 19, 20 – 64 and 65 + (Fig. 1).

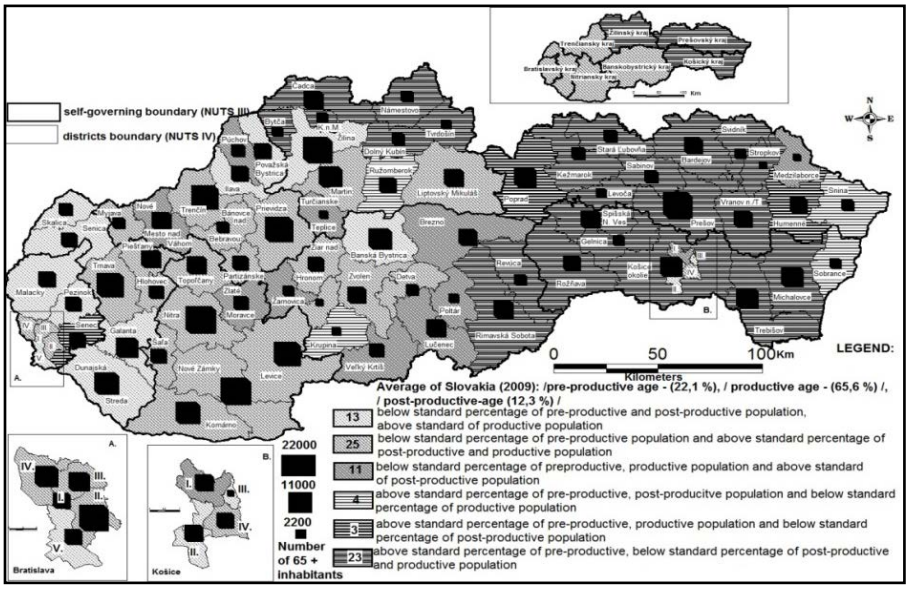


Fig. 1: Types of communes according to the basic population age groups in Slovakia, 2009.
Source: Statistical Office of Slovakia, 2011.

3.1 Ageing from bottom

The share of children and young people up to the age of 20 in the population constantly decreased since 1960, and suppose that in 2030 it will be lower than the share of seniors over the age of 65 +. The proportion of age category group 0 – 19 in Slovak population has rapidly diminished from 38.2 % (1945) to 22.1 % (2009). In the period 1945 – 2000, the age group 0 – 19 made up more than quarter of the whole population in Slovakia. As seen in the Fig. 2, in total numbers, the maximum of people in age group 0 – 19 was recorded in 1990, with more than 1.770.000 young people in the population. The number of population over 65 years has grown to 665 thousand citizens (2009), the proportional growth means from the value of 6.6 % (1945) to 12.3 % (in 2009). The population of the age of 20 – 64 stands for the productive age group. Its size increased as many as to 65.6 % at the end of analyzed period 1945 – 2009. The total number moved from 1.892 thousands in 1945 to 3.560 thousands in 2009.

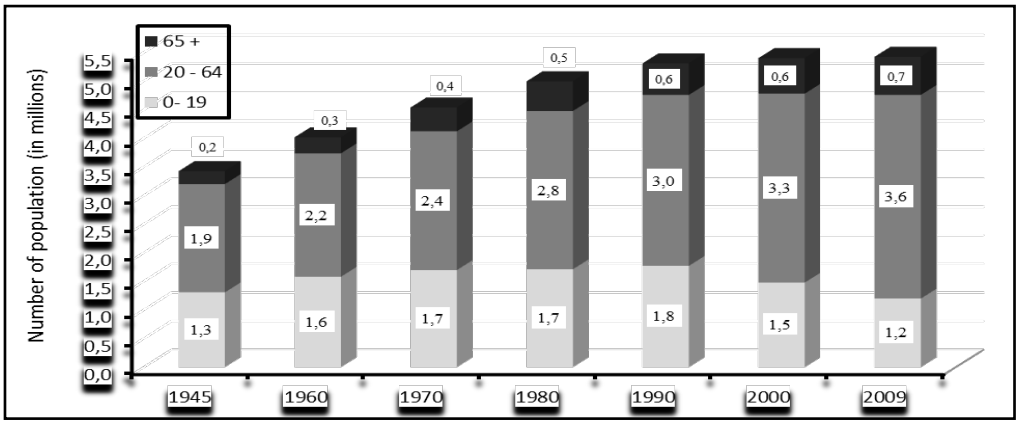


Fig. 2: Development of main age categories in Slovakia (1945-2009).
Source: Statistical Office of Slovakia, 2011.

3.2 Ageing from top

To specifying the old population contributes to the viewpoint on the up-to-date age of retirement, we have evaluated age groups of 65 – 74 years (young old), 75 – 84 (old-old) and over 85 + (oldest old). Categories (old-old) and (oldest old) register their maximum levels in 2009, which is caused by the improvement of mortality circumstances, by the prolongation of life expectancy and by shift of the younger age groups (waves).

As seen in Fig. 3, proportion of the population in age category (young old) had been increasing from 4.5 % in 1945 up to 7.0 % in 2009. Since 1945, the number of young old (65 – 74 years) in the total population of Slovakia increased from 155 thousands in 1945 up to 381 thousands inhabitants at the end of 2009. It is significant that mentioned category of population during the monitored period increased more than two times.

The population of the age over 85 + years records the proportional growth from 0.2 % (1945) to 1.1 % (2009). This age category records the fastest growth of all three post-productive evaluated categories in the period 1945 – 2009.

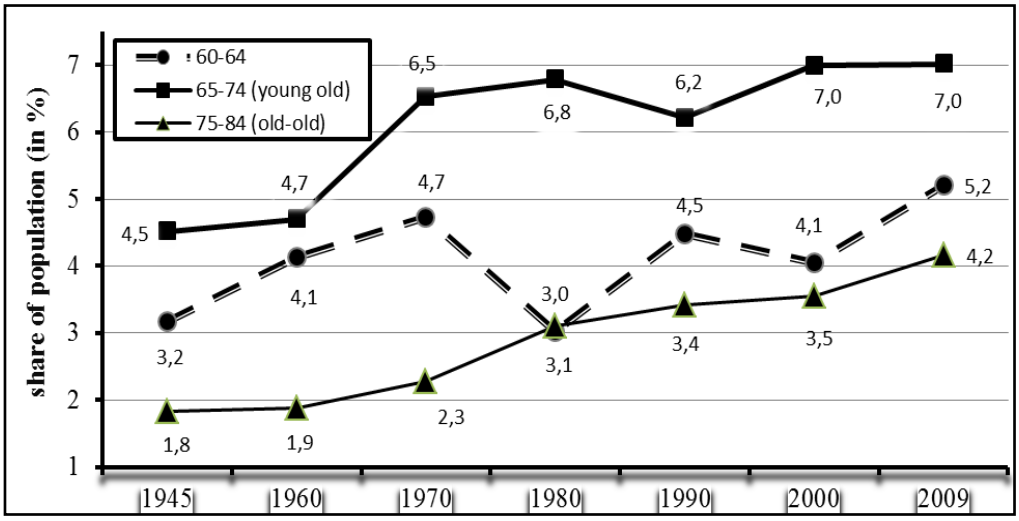


Fig. 3: Post-productive age groups in Slovakia, share in total population (1945-2009).
Source: Statistical Office of Slovakia, 2011.

3.3 Age pyramids

Evaluates of age pyramids of Slovak population was gotten following facts. The pyramid of 1945 has got progressive type. The major population group in 1945 was between 0 – 4 years old (Fig. 4). That population was born in period between 1940 and 1945.

From the gender aspect, male population groups, in comparison with females, were numerous in the all four young age groups in 2009 (0 – 4, 5 – 9, 10 – 14, 15 – 19). The biggest difference between the number males and females has existed in the older age categories, for example 70 – 74 (37.455 women more than men) and 75 – 79 (39.548 women more than men). Among all categories, the share of female in 2009 is dominant in the categories, which are elder than 45 – 49. Since women live longer than men do, they have dominant representation in the oldest age categories.

In 2009 with compare to 1945 Slovak population become older. In fact, age structure pyramid of Slovak population was transformed from progressive in 1945 to regressive type in 2009. It is significant, that during the monitored period we can also found declining of the ratio of young people and increasing of the portion of old people. As we mentioned in 2009 portion of young population (0 – 19) in total population of Slovakia become less and therefore the pyramid got regressive form.

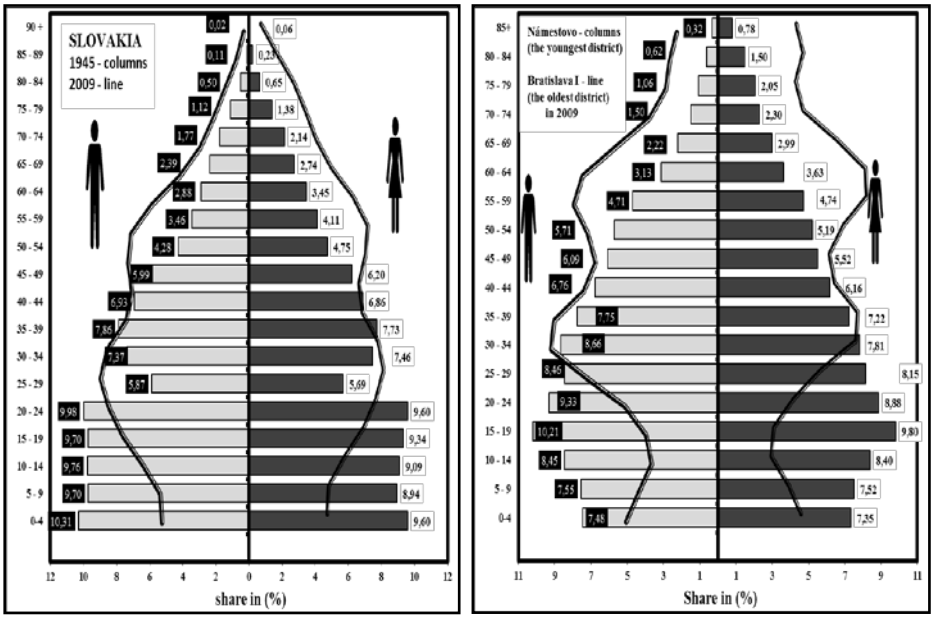


Fig. 4: Age structure diagram of Slovakia (in 1945, 2009) and selected districts of Slovakia (in 2009).
Source: Statistical Office of Slovakia, 2011.

3.4 Average age

In 1995, Penev gave parameters for seven different stages of age according to which Slovakia was passing through two stage of age since 1945. At the beginning of observed period Slovak population were in the threshold of demographic ageing, when in 2009 reached the five stage of demographic ageing. From 1960 to 2009 average age of Slovak population constantly increased. As seen in the Table 2 from 1960 to 2009 average age of female population increased for 8.7 years and of male population increased for 7.5 years. In observed period average age of females in Slovakia is higher compared to males. Explanation might be the fact that women are numerous because they live longer. In Slovakia, at the NUTS IV level, there is relative uniformity between individual regions. In 2009 almost 77 % of regions (61 units) have been identified in stage – demographic ageing (Tab. 1).

Tab. 1: Stages of demographic aging and criteria for their identification.

Stages	Average age	Number of units in 2009
1. Early demographic youth	<20 years	0
2. Demographic youth	20 – 25	0
3. Demographic maturation	25 – 30	0
4. Threshold of demographic ageing	30 – 35	4
5. Demographic ageing	35 – 40	61
6. Deep demographic ageing	40 – 43	13
7. Deepest demographic ageing	43 +	1

Source: Statistical Office of Slovakia, 2011.

For Europe, the demographic process evaluated here can be described as a gradual shift from a society with quantitatively dominant younger cohorts to a society in

which the elderly from solid majority. This is best reflected when looking at the average age (Kovačević et al. 2010, p. 73).

The study of average age of population is essential because of reproduction ability of this category. It is know that female reproductive period ending at 45. From the beginning of 21st century, an average age of Slovak female population was raised in critical limit (up to 40 year). Slovak population has just come to 5th stage. Politics, economists and demographers must find as soon as possible a solution for the rapidly ageing of Slovak population.

Tab. 2: Dynamics of changes of average age in Slovakia, 1960 – 2009.

Census	1960	1970	1980	1990	2000	2005	2009
Population of Slovakia							
Male	29.3	31.1	31.4	32.1	34.4	35.8	36.8
Female	31.4	33.0	33.7	34.9	37.5	39.0	40.1

Source: Statistical Office of Slovakia, 2011.

3.5 Old dependency coefficient

The old people dependence coefficient was climbing gradually throughout monitored years. In 2009 there were almost 19 people elder than 65 + per 100 economically active inhabitants. As seen in the Fig. 4, during the whole observed period 1945 – 2009 the old people dependence in the Slovakia increased from 11.9 % (1945) to 18.7 % (2009). The situation within the districts of Slovakia was much different. High values of old people dependence coefficient we can observe in urban districts of capital of Slovakia – Bratislava and in the south-west of Slovakia. Western Slovakia is the most urbanized region in Slovakia. Hungarian minority, which has occupied southern Slovakia have had during the observed years more intensive aging than Slovak population. District Medzilaborce reached the one of the highest value of old people dependency coefficient. It is located in the north-eastern Slovakia near the Polish and Ukrainian border. Very negative phenomenon which attacking this region for several years is the emigration of young, productive people. As we mentioned majority of migrants are predominantly young and educated people. On the other hand lowest values have been monitored in north and east part of Slovakia. Concerning individual districts, Bratislava I district reached the highest value of old dependence coefficient 29.1 %, the lowest value was in the district of Košice III 7.1 % in 2009.

3.6 Youth dependency coefficient

Youth dependency coefficient based on economic limits fell from 69.1 % to 33.7 % in the observed period 1945 – 2009 (Fig. 5). In 2009, some 34 young people were dependent on 100 members of the productive population. The most critical situation is in urban districts of Bratislava and in the south-western districts that recorded the lowest youth dependency coefficient (comprehensively lowest youth dependency coefficient was in the city districts of Bratislava but the fact is conditioned by the suburbanization tendencies, when productive population of the cities move into its suburbs). Districts like Banská Bystrica (27.1 %), Myjava (27.2 %), Partizánske (28.8 %) and Komárno (29.2 %) achieved the lowest values. In same year the highest youth dependency coefficient was achieved in the districts of Námestovo (56.6 %), Sabinov (55.4 %) and Kežmarok (55.0 %). It is results of relatively high level of fertility their inhabitants, which belongs to Gipsy minority (in case of eastern Slovakia – districts like Kežmarok and Sabinov) and distinctive rural landscape of

region Orava and Kysuce which are located in north part of Slovakia. This tendency is related with the fact that in the early 1990s, nearly the whole baby boom generation of the 1970s became productive. But if only limited part of a baby boom generation (aged above 20) moved into the productive sphere, the dependency coefficient would be affected accordingly.

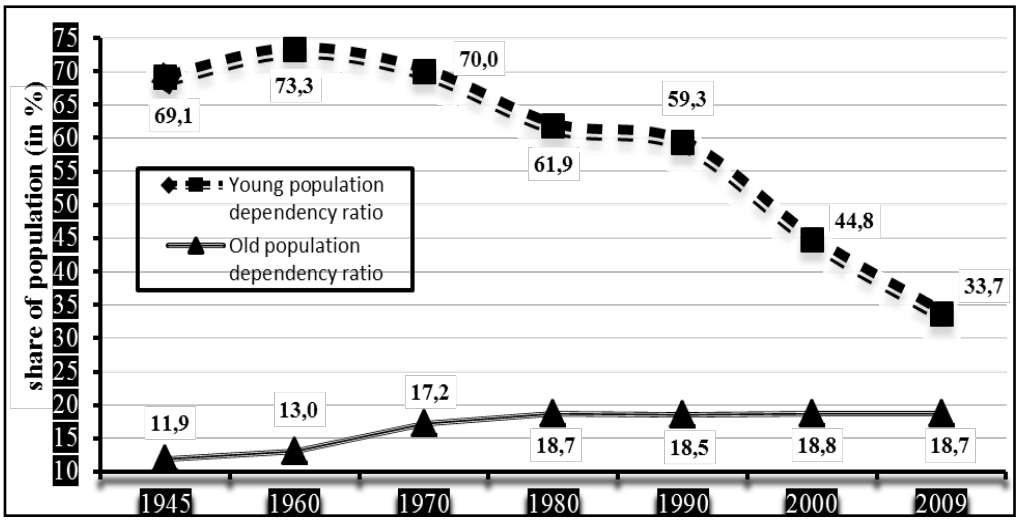


Fig. 5: Dynamics of change young and old population dependency ratio in Slovakia (1945 – 2009).
Source: Statistical Office of Slovakia, 2011

3.7 Overall dependency coefficient

Overall dependency coefficient equally is going down during the observed period, when in 2009 some 100 members of productive population carry the burden imposed on them 53 economic young or old people. Overall dependency coefficient remains more or less stable while the other coefficients are gradually falling or increasing.

3.8 Aging index

Aging index changed dramatically over the analyzed span of time. Aging index amid 1945 and 2009 enlarged from 17.2 % to 55.5 % (by economic standards). This trend was caused by the plummeting number of children and moderate growth in the number of the eldest population. In 2009, there were as many as 56 inhabitants above 65 years of age per 100 people in pre-productive age. According to projection it can be expected that in 2050, will be more than 170 inhabitants above 65 years of age per 100 people in pre-productive age. Ageing index in the Slovak districts reached the rate from 22.9 % (Námestovo) to 125.3 % (Bratislava I) in 2009. High aging index in certain districts of north-eastern Slovakia closely correlates with the ethnic and religious structure of population. The young age structure of these units making a potential for their progressive reproduction (manifested in the values of natural increase). Such a character of the development is also supported by specificities of the national and religious structure. An impact of the higher level of religiosity is present in northern Slovakia (more than 90 % of the population in the regions Kysuce and Orava are religious). For Roman Catholic population, which is

case of mentioned regions, is typical higher level of fertility and families with more children. The most depressed situation is in the big cities like Bratislava and Kosice, and in the south-west part of country. Globally the highest rates of aging index were detected in the city districts Bratislava I (125.3 %), III (100 %), II (93.2 %), Myjava (83.4 %) and Nové Mesto nad Váhom (76.7 %). These districts stand for comparatively elder age structures. Similarly like the young districts, we can talk about the impact of the age structure having a negative effect on the intensity of fertility and natural increase. The evidence can be found in the negative values for the natural increase of population. Again, we can consider the impact of the religiosity and of the national structure on the population aging. The populations of Hungarian nationality with a higher proportion in the southern districts mostly avow an affiliation with Reformed Christian churches preferring a lover intensity of fertility and model of single-child family.

3.9 Inflow, outflow and substitution coefficients

Inflow and outflow coefficients describe the situation when a five-years-old age group of population is preparing to reach the lower or upper age limit marking the productive life span.

Inflow coefficient based on economic limits fell from 17.7 % to 11.8 % in the observed period 1945 – 2009 (Fig. 6). It is clearly that the inflow coefficient is going down to the low level of 12 people aged 20 – 24 per 100 inhabitants in the reproductive years (20 – 64 years). It is significant that fewer and fewer people enter the productive age.

Outflow coefficient has been rising from 5.7 % (in 1945) to 7.9 % (in 2009). It means that nearly 8 people aged 60 – 64 per 100 inhabitants in the reproductive years (20 – 64 years). It is clearly that there is a rise in the number of people leaving the productive age for the post-productive one.

While at the beginning of the period (1945) being investigated the inflow coefficient exceeded the outflow coefficient by nearly 12 percentage points, in 2009 it was only 3.9 percentage points. It means the inflow of economically active people is still higher than the outflow; however, both the coefficients have been converging in the past years.

The substitution coefficient is the sum of the effects of the inflow and outflow coefficients and it is also of a decreasing character. Substitution coefficient has been shrinking due to changes in the demographic situation of Slovakia during the observed period, when the generation entering the productive age has been continuously decreasing since 1945.

When studying the burden on the productive population, it is also suitable to watch the dynamics of burden change, which is connected with the inflow, outflow and substitution coefficients. The inflow coefficient states the ratio of pre-productive population which is just about to enter the productive population to the productive population, the outflow coefficient expresses the ratio of the post-productive population which is just leaving the productive population to the productive population, and the substitution coefficient declares the ratio of the numerators of the previous coefficients (Vošta, Minařík 2007, 6).

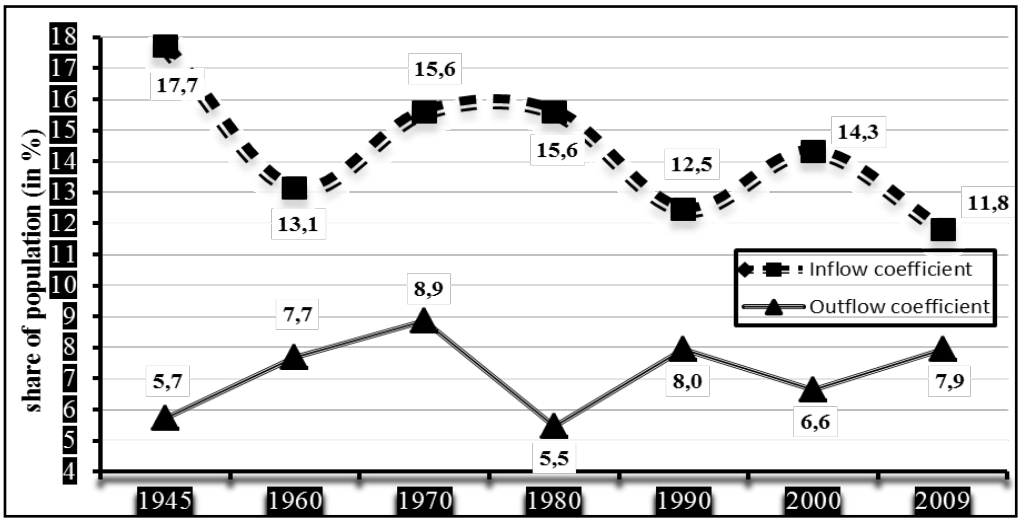


Fig. 6: Dynamics of change outflow and inflow coefficients in Slovakia (1945 – 2009).
Source: Statistical Office of Slovakia, 2011

4. Conclusion and synthesis

Ages 0 – 19 and 65 + were implemented as criteria for population ageing analyzes. The demographic old age analyzes involved and index (age index) of the oldest group to the youngest group (number of 65 + per 100 of (0 – 19s). The ageing rate was determined with the age index changes during 2001 – 2009. An attempt to identify the areas exposed to ageing was based on the value and growth rate of the age index. To do that, the 2009 index was divided into to the three categories around the average for the whole area and three types the demographic old age were defined – high, medium and low categories. Also the growth/decrease rates of the index during 2001 – 2009 were divided into to the three groups around the districts average (Tab. 3 and 4).

Tab. 3: The level of population ageing in 2009.

The level of population ageing	The type of population ageing	Elderly-to-youth coefficient
High	I	above 62.8
Middle	II	50.5 – 62.8
Low	III	below 50.5

Source: Statistical Office of Slovakia, 2011.

Tab. 4: The dynamics of population ageing process in 2001 – 2009.

The dynamics of population ageing	The type of population ageing	Elderly-to-youth coefficient variability
High	a	above 8.5
Middle	b	3.1 – 8.5
Low	c	below 3.1

Source: Statistical Office of Slovakia, 2011.

Tab. 5: Population ageing hazard level 2001 – 2009.

Population ageing hazard level	Type	Subtype	The level of population ageing	The dynamics of population ageing
High	I	Ia	high	high
		Ib	high	middle
		Ic	high	low
Middle	II	IIa	middle	high
		IIb	middle	middle
		IIc	middle	low
Low	III	IIIa	low	high
		IIIb	low	middle
		IIIc	low	low

Source: Statistical Office of Slovakia, 2011.

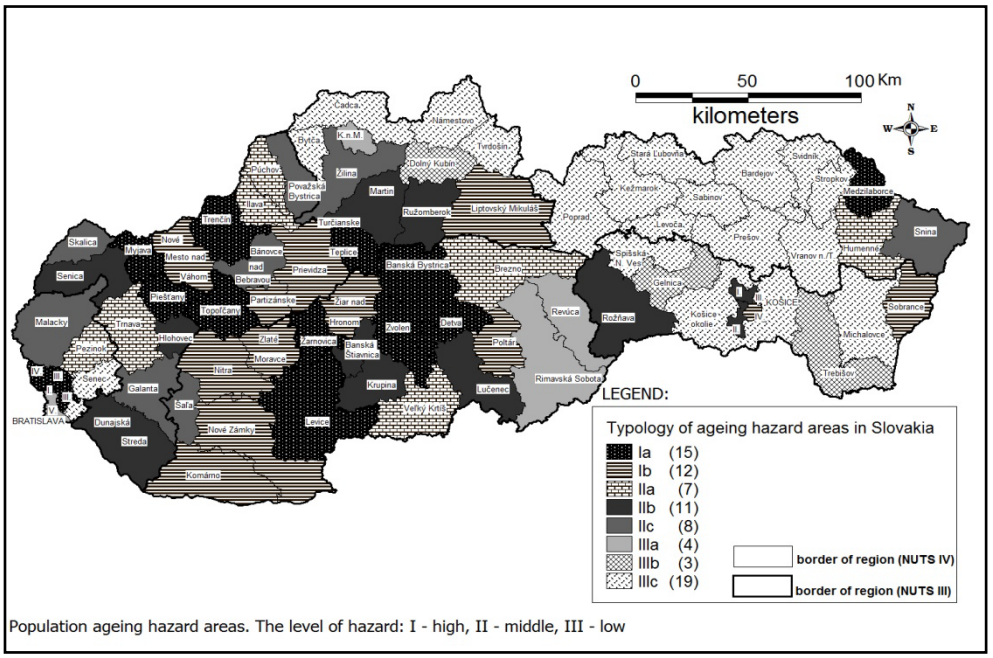
As seen in the Tab. 5 and Fig. 7, cluster three is comprised units with negative growth, i. e. regions where the population was growing younger. The second cluster encompassed units with positive growth rates but below the region average, while the final group (I) had higher than average growth rates indicating fast-ageing population. Taking into account the current ageing in 2001 and the growth rates during 2001 – 2009, three main types of areas were defined, featuring high, medium and low risk of demographic senility (Tab. 6). Each type was further broken down into three subtype's withe different ageing rates.

Tab. 6: Population ageing in districts of Slovakia 2001 – 2009.

Subtype	Name of district (level NUTS IV)
I a	Banská Bystrica, Bratislava I, Bratislava II, Bratislava III, Bratislava IV, Detva, Levica, Medzilaborce, Myjava, Piešťany, Topoľčany, Trenčín, Turčianské Teplica, Zvolen, Žarnovica (15).
I b	Komárno, Košice IV, Liptovský Mikuláš, Nitra, Nové Mesto nad Váhom, Nové Zámky, Partizánske, Poltár, Prievidza, Sobrance, Zlaté Moravce, Žiar nad Hronom (12)
I c	(0)
II a	Brezno, Humenné, Ilava, Pezinok, Púchov, Trnava, Veľký Krtíš (7)
II b	Banská Štiavnica, Dunajská Streda, Hlohovec, Košice I, Košice II, Krupina, Lučenec, Martin, Rožňava, Ružomberok, Senica (11)
II c	Bánovce nad Bebravou, Galanta, Malacky, Považská Bystrica, Skalica, Snina, Šaľa, Žilina (8)
III a	Bratislava V, Kysucké Nové Mesto, Revúca, Rimavská Sobota (4)
III b	Dolný Kubín, Gelnica, Trebišov (3)
III c	Bardejov, Bytča, Čadca, Kežmarok, Košice III, Košice-okolie, Levoča, Michalovce, Námestovo, Poprad, Prešov, Sabinov, Senec, Spišská Nová Ves, Stará Ľubovňa, Stropkov, Svidník, Tvrdošín, Vranov nad Topľou (19)

Source: Statistical Office of Slovakia, 2011.

Throughout 2001 – 2009, the average proportion of the 65 + group in Slovakia increased from 11.4 to 12.3 %, whilst the proportion of 0 – 19 decreased from 27.0 % to 22.1 %. The elderly-to-youth coefficient variability dropped (i.e. the age structure became younger) in 13 units located in northern and eastern Slovakia. The youngest population was detected in following regions – evaluation according elderly-to youth coefficient variability (2009 – 2001): Stará Ľubovňa (-23.1 %), Spišská Nová Ves (-18.4 %), Tvrdošín (- 13.3 %), Námestovo (-10.9 %) and Kežmarok (10.3 %). The drops amid 0 % and minus 5 % have been attained in Žilina, Čadca, Skalica, Senec, Sabinov, Stropkov, Košice-okolie and Levoča. On the other hand, the fastest ageing population was found in the western regions of Slovakia – Púchov (20.8 %), Turčianské Teplice (19.8 %), Zvolen (19.7 %) and Bratislava I (19.4 %).



Population ageing hazard areas. The level of hazard: I - high, II - middle, III - low

Fig. 7: Population ageing hazard areas in Slovakia, 2009.
Source: Statistical Office of Slovakia, 2011.

Studying the works which deal with regional aging processes in Slovakia, all the authors agree that different capability of regions to adapt social and economic transformation is the main reason for emerging and deepening of ageing disparities in Slovakia. This allows us to present a classification of regions of Slovakia according to their aging condition.

Another method that was used for evaluation of aging processes in Slovak regions is aggregate of ageing index, which consists from following factors (Tab. 7).

The first category (types I. and II.) includes districts predominantly positioned in eastern and northern part of Slovakia (Tab. 8 and Fig. 8). In stated category are districts with high level of crude live birth rate, high level of natural increase of population. For this category are distinctive lower values of average age – compare with Slovakia, high level of young population dependency ratio and higher share of 0 – 19 year old in total population compare with Slovakia.
Instead we have a lot of districts mainly in western part of Slovakia (types IV. and V.) with the highest values of crude death rate, mean age, ageing index and old population dependency ratio. These regions exemplify units with the oldest population in Slovakia.

Tab. 7: Indicators of aggregate ageing index in Slovak regions – 2009.

Name of coefficient (2009)	minimum rate	maximum rate
Crude live birth rate – number of live births per 1.000 population	Zlaté Moravce (8.73 ‰)	Kežmarok (19.27 ‰)
Crude death rate – number of deaths per 1.000 population	Bratislava V (5.79 ‰)	Bratislava I (13.67 ‰)
Natural increase/decrease per 1.000 population	Turčianske Teplice (-3.94 ‰)	Kežmarok (11.08 ‰)
Average age	Námestovo (32.2)	Bratislava I (44.3)
Young population dependency ratio	Bratislava V (18.9 %)	Námestovo (56.6 %)
Old population dependency ratio	Košice III (7.1 %)	Bratislava I (29.1 %)
Ageing index	Námestovo 22.9 %)	Bratislava I (125.3 %)
Age index	Bratislava I (79.8 %)	Námestovo (436.1 %)
Inflow coefficient	Košice IV (8.0 %)	Stará Ľubovňa (15.5 %)
Outflow coefficient	Námestovo (5.7 %)	Košice IV (13.5 %)
Share of 0 – 19 year old in total population	Bratislava V (14.8 %)	Námestovo (33.4 %)
Share of 65 + year old in total population	Košice III (5.4 %)	Bratislava I (19.1 %)

Source: Statistical Office of Slovakia, 2011.

Tab. 8: Synthesis of population ageing in districts of Slovakia – 2009.

TYPE	Name of district (level NUTS IV)
I. (very low level of ageing)	Námestovo, Kežmarok, Košice III, Stará Ľubovňa, Tvrdošín, Spišská Nová Ves, Sabinov, Levoča, Bratislava V, Vranov nad Topľou, Gelnica, Bardejov, Košice-okolie, Čadca, Michalovce, Dolný Kubín (16).
II. (low level of ageing)	Prešov, Bytča, Trebišov, Poprad, Revúca, Svidník, Senec, Stropkov, Humenné, Ružomberok, Rimavská Sobota, Malacky, Pezinok, Kysucké Nové Mesto, Rožňava, Košice II (15)
III. (average level of ageing)	Považská Bystrica, Krupina, Snina, Šaľa, Púchov, Žilina, Skalica, Dunajská Streda, Senica, Bánovce nad Bebravou, Lučenec, Banská Štiavnica, Košice I, Ilava, Galanta, Veľký Krtíš (16)
IV. (high level of ageing)	Brezno, Hlohovec, Martin, Trnava, Banská Bystrica, Nitra, Sobrance, Prievidza, Zvolen, Poltár, Liptovský Mikuláš, Levice, Topoľčany, Detva, Žarnovica, Žiar nad Hronom (16)
V. (very high level of ageing)	Košice IV, Bratislava IV, Trenčín, Zlaté Moravce, Komárno, Partizánske, Nové Zámky, Turčianske Teplice, Piešťany, Medzilaborce, Nové Mesto nad Váhom, Myjava, Bratislava II, Bratislava I, Bratislava III (16)

Source: Statistical Office of Slovakia, 2011.

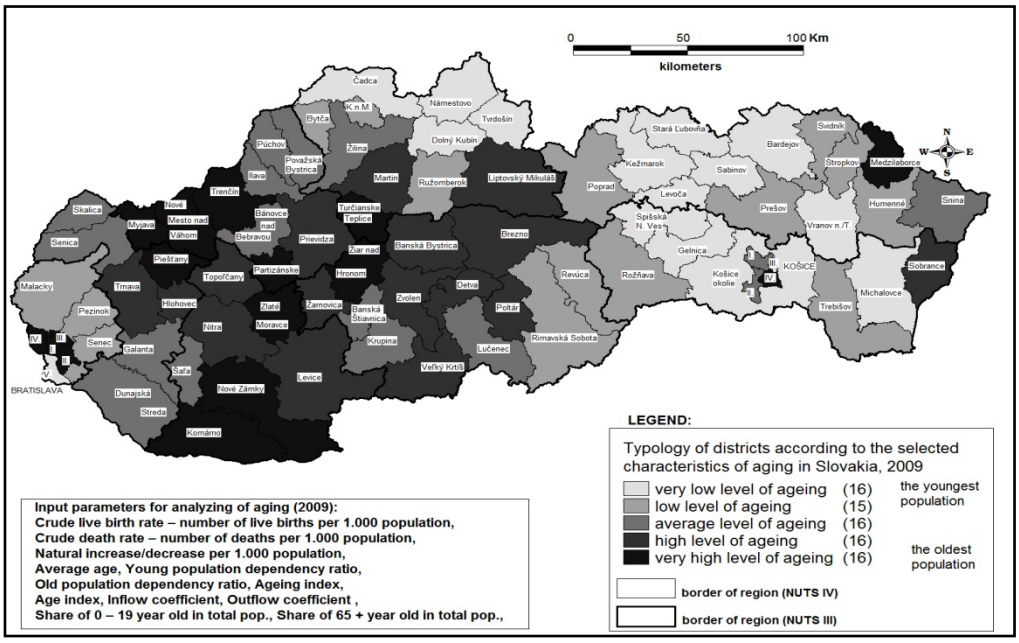


Fig. 8: Typology of districts according to the selected characteristics of aging in Slovakia, 2009.
Source: Statistical Office of Slovakia, 2011.

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POPULATION AGING AND CHANGES IN THE AGE STRUCTURE OF SLOVAKIA

Summary

Slovak population attained to the fourth stage of population aging. For this stage is significant stabilization of fertility and mortality level occur. Stabilization of fertility takes place at replacement level or below. Population structure becomes stable with preserving both – high number of the aged population and relatively high proportion of the aged.

Population structure by 2009, highlighted by the population pyramid, indicates the drastic drop of young age groups, or their ultimate absence – compared with population pyramid in 1945. Overall, we can claim, that all parameters of age structure shows that population in Slovakia is aging. According to data from 2009, the old aging index was more than 3 times higher related with the beginning of observed period (1945).

In Slovakia there are two greater regional entities with different population aging grade. Pronounced region in the south and southwest of Slovakia is described by a higher ageing grade. The second entity, spreading in the north and east of Slovakia is the region with relatively lower ageing grade and with younger population.
Slightly more sophisticated measures of social and familial dependency provide a better picture of changes in the dependency of the young and the older generations. These measures, in contrast to the age ratios, take into account certain changes in the social circumstances, more specifically in the length of education and in labor force participation, besides shifts in the age distribution.

The measures which relate various groups of the economically inactive population to the active population describe changes in the support burden more accurately, and also indicate that, while demographic ageing necessarily involves an increase in the proportion of the aged inactive population, this increase is more or less compensated for by the decreasing burden imposed by the young generations.

The structure of the current by age suggests that in the near future the pace of demographic ageing will soon quicken due to changes in the level of fertility, mortality, migration as well as natural shifts in the age structure of population. As we can see in age structure diagrams of Slovakia large cohorts currently of productive age will gradually grow old but they will not be replaced in middle age by generations numerically equal in size. The numerically small cohorts that will soon enter productive age will not be able, nor evidently even willing (according to polls on attitudes towards reproduction), to increase reproduction in order to raise the expected fertility rate, thus there will be a further decrease in the share of children in the population. In further, there will be a lot of consequences of population aging for society in the field of education system, labor supply, productivity and employment, social services, intergeneration transfers, health and health care, age structure of population and level of fertility, mortality and migration. The expected further improvement of mortality conditions will serve to quicken the pace of demographic ageing and the Slovakia will gradually join the ranks of countries in which a high proportion of the population is of post-productive age.

Population ageing and the postponement or rejection of marriage by some young people will lead to a continuous increase in the share of one-person households and family households of young childless people. This will gradually lead to a change in

the way of life of an increasingly greater part of the population less, encumbered" by the need to care for children and the costs that involves. This will certainly be made apparent with stronger consumer tendencies in the population of productive age, but also in continuing consumption among the population of post-productive age.

In accordance with similar findings in other cases, the development of all characteristics of the burden on the productive population in NUTS IV level of Slovak regions is very negative. When there are some more favorable values found in the northern and eastern regions, at the state level Slovak population slowly getting older in all parameters of demographic ageing. Due to rising number of inhabitants at the post-productive age and, in contrast, the failing number of the inhabitants at the productive age in spite of a temporary increase, the negative trend is reflected in the increasing coefficient of the burden on the productive population imposed by the post-productive population (the old people dependence coefficient). Population ageing processes cause needs to solve a whole line of social problems, which recently meet especially developed countries.

UČITELJI MENTORJI O SVOJI USPOSOBLJENOSTI ZA POUČEVANJE GEOGRAFIJE S POMOČJO INTERAKTIVNE TABLE

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Izvleček

Učitelji mentorji o svoji usposobljenosti za poučevanje geografije s pomočjo interaktivne table

V prispevku so predstavljeni nekateri trendi vpeljevanja interaktivne table v pouk geografije tako z vidika primerjave opremljenosti slovenskih šol z interaktivnimi tablam kot njihovo dostopnostjo in dejansko vključenost v pouk geografije. Mnenja učiteljev mentorjev študentom geografije na pedagoški praksi, ki so sodelovali v krajši pilotski kvalitativni raziskavi, so pokazala kako le-ti ocenjujejo svojo trenutno usposobljenosti za poučevanje geografije s pomočjo interaktivne table in kakšne so njihove dosedanje izkušnje. Zbrana mnenja kažejo, da so v raziskavo vključeni učitelji mentorji, glede na pet stopenjsko lestvico strategij procesa učenja z uporabo i table po Hooper in Riebrju (1995), pretežno v začetni fazi seznanitve in delno v fazi uporabe. Samo posamezniki dosegajo stopnjo integracije, ko interaktivno tablo uporabljajo vsakodnevno in je to postal njihov način poučevanja. Nihče od sodelujočih pa ni izrazil menja, da lahko na podlagi znanja in osebnih izkušenj že razvija nove strategije poučevanja (5 faza) ter se tako prilagaja raznolikim individualnim potrebam učencev.

Ključne besede
interaktivna tabla, učitelj, geografija

Abstract

Mentor teachers' perceptions about their ability to teach geography through interactive whiteboards

In this paper we present some of the trends of introducing interactive whiteboards in teaching geography in terms of both the comparison of Slovenian schools equipped with interactive whiteboard signs as their availability and actual involvement in teaching geography. The opinions of students mentor teachers in geography teaching practice, who participated in a short pilot qualitative survey, showed how they assess their current skills of teaching geography using the interactive whiteboards and what their experiences are. Collected opinions suggest that the surveyed teachers of geography are according to the five-step scale of the process of learning strategies using interactive tablets (Hooper in Rieber 1995) at the beginning: the familiarization phase and phase of use. Only individuals are reaching the level of integration: everyday usage of the interactive whiteboard, which became their way of everyday teaching. But no one expressed the view that they are developing new teaching strategies (5th step), which are based on their personal knowledge and experiences that are adjusted to the diverse individual needs of students.

Keywords
Interactive whiteboard, teacher, geography

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1. Uvod

Tako po svetu kot v slovenskih šolah lahko že nekaj desetletij sledimo intenzivnemu trendu vpeljevanja izobraževalne tehnologije v učni proces. Izbor izobraževalnih tehnologij je vključeval raznolika učna sredstva in medije (grafoskop in grafoskopske prosojnice, diaprojektorje, TV, video filme, itd.), ki so bili nosilci raznolikih informacij. Informacijsko komunikacijska tehnologija (IKT) pa je ne samo kot učna podpora ampak kot učno sredstvo, prinesla nove možnosti, saj lahko z njo informacije tako sprejemamo, obdelujemo in posredujemo, torej omogoča uporabniku manipulacijo in komunikacijo, kar spremeni tako poučevanje kot učenje oz. same učne strategije. Z vpeljevanjem IKT v pouk je spodbujena možnost preoblikovanja transmisijskih učnih pristopov v transformacijske, ki temeljijo na kognitivno – konstruktivističnem načinu učenja (SITES 2006; Beauchamp in Parkinson 2005; Bačnik 2008; Teich 2009).

2. Opremljenost in dostopnost do IKT ter njena uporaba

V raziskavi o opremljenosti šol držav članic EU Information and Communication Technology in European Education Systems (2001) so ugotavljali, da jih lahko razvrstijo v tri skupine: skupino držav, kjer so šole dobro opremljene z osnovno računalniško tehnologijo, skupino držav, kjer si prizadevajo opremiti z računalniki in programsko opremo ter si prizadevajo, da šole povezujejo z internetom in razvijajo šolska spletna omrežja. Trejo skupino tvorijo tiste države, kjer so šole pomanjkljivo opremljene z najosnovnejšo IKT. Slovenija se je na prelomu stoletja uvrščala med države, ki so v šole nameščale osnovno strojno in programsko računalniško opremo. Deset let kasneje lahko ugotavljamo, da so slovenske šole s tem že dobro opremljene (Gerlič 2010). Nadaljuje se opremljanje šol s dostopom do širokopasovne internetne povezave in drugimi spletnimi tehnologijami, kot na primer interaktivnimi tablami (i- table) (Bambič 2009).

Ob dobri opremljenosti šol z različno IKT opremo se velja seveda vprašati po osnovnem namenu; koliko se ta oprema uporablja in kakšne učinke ima na pouk? Činkole in Brečko (2010) v raziskavi Šolajoči in IKT 2010 ugotavljata, da so v raziskavo zajeti slovenski učitelji decembra 2009 najbolj pogosto med učno uro uporabljali računalnik (26 % vsak šolski dan) ter projektor (22 % vsak šolski dan). Najmanj pogosto pa so uporabljali spletno učilnico in i-tablo (43 % učiteljev je nikoli ne uporablja, 8 % občasno, 13 % nekajkrat mesečno). O vključevanju i-table v pouk najpogosteje poročajo anketirani 14 letniki (36 % vsak šolski dan, 9 % skoraj vsak šolski dan), 91 % anketiranih učencev pa poroča, da njihovi učitelji nikoli ne uporabljajo i-table (prav tam).

Šole so največ i-tabel pridobile s pomočjo nacionalnih razpisov za opreme šol Ministrstva za šolstvo in šport RS, v manjši meri pa so jih kupovale iz lastnih oz. donatorskih sredstev. Največje število i-tabel je nameščenih na predmetni stopnji, v učilnicah za matematiko, kemijo in angleščino. Učitelji kot najpogostejši vzrok za redko uporabo i- tabel navajajo vzrok , da le-te nimajo v svoji matični učilnici in se morajo z učenci seliti v učilnico, kjer je i-tabla. Najpogosteje slovenski učitelji i-tablo uporabljajo v fazah utrjevanja, usvajanja nove snovi in v fazi preverjanja znanja. Največ učiteljev uporablja pri delu z i-tablo dostopna gradiva s spleta in že izdelana kupljena gradiva (Bučar 2011).

3. Usposobljenost učiteljev za uporabo interaktivne table

E -kompetentni učitelj pri uporabi i-table ne išče samo interaktivnost s tehnologijo, temveč uporablja tehnologijo kot vzporedni medij, kot podporo za interakcijo z razredom ter spodbuja učence, da komunicirajo med sabo, v smislu vzajemnega razvoja novih učnih strategij (Beauchamp in Parkinson 2005). Za doseganje učiteljeve kompetentnosti v delu z novimi učnimi tehnologijami Hooper in Rieber (1995) navajata pet stopenj v učiteljevem napredovanju v poučevanju. Na prvi stopnji se učitelji seznanijo z novo izobraževalno tehnologijo in zmožnostmi, ki jo le-ta omogoča. Naslednji korak je njena postopna uporaba pri pouku. Učitelji se ob uporabi osnovnih funkcij postopno izpopolnjujejo na tehničnem področju in postopno prilagajajo svojo strategijo poučevanja. Pomembnejši napredek je dosežen, ko učitelji preidejo na stopnjo integracije. Novo izobraževalno tehnologijo vsakodnevno vključujejo v pouk, poveča se učiteljeva motivacija za njeno večjo učinkovitost. Četrta stopnja predstavlja že učiteljevo osredotočenost v razvoj novih strategij za poučevanje in učenje, kar vodi lahko k zaključni stopnji – evoluciji v uporabi novih učnih strategij. Učitelji so prožni v odzivnosti na individualne potrebe učence, v učnem procesu teče interakcija tako med učiteljem kot učenci kot med učenci (prav tam).

4. Empirična raziskava : Mnenje učiteljev mentorjev o njihovi usposobljenosti za poučevanje geografije s pomočjo interaktivne table

Oddelek za geografijo Filozofske fakultete Univerze v Mariboru v okviru praktičnega pedagoškega usposabljanja študentov-bodočih učiteljev geografije že desetletja sodeluje s številnimi osnovno in srednješolskimi učitelji geografije v Sloveniji. Za kvalitetno izvedbo praktičnega pedagoškega usposabljanja študentov so prav gotovo odločilnega pomena usposobljeni učitelji mentorji in ustrezni pogoji za poučevanje. V zadnjih desetih letih imamo pri tem v mislih tudi možnosti uporabe sodobne IKT pri pouku geografije, kamor uvrščamo tudi i-table.

4.1 Vsebinska in ciljna opredelitev raziskave

Iz podatkov zbranih v okviru pedagoške prakse študentov geografije (Kolnik 2011) je, tako kot iz predhodno opisanih nacionalnih raziskav, možno razbrati, da so slovenske osnovne in srednje šole relativno dobro opremljene z i-tablam in, da podobno kot to velja za vse slovenske učitelje, je tudi za delo učiteljev geografije možno pričakovati razkorak med dostopnostjo in pogostostjo uporabe i-table pri pouku. Da bi lažje razumeli razloge za tako stanje, smo učitelje mentorje študentom geografije na pedagoški praksi, povprašali kako sami ocenjujejo svojo usposobljenosti za poučevanje geografije s pomočjo i-table in kakšne so njihove dosedanje izkušnje.

Zbiranje podatkov je temeljilo na štirih vodilnih vprašanjih:

- o pomenu vključevanja i-table v pouk geografije,
- o opremljenosti oz. dostopnosti do i-table ter pogostosti njene uporabe pri pouku geografije,
- oceni lastne usposobljenosti za delo z i-tablo,
- o prednostih in slabostih uporabe i-table pri pouku geografije.

4.2. Metodologija in raziskovalni vzorec

V študijskem letu 2009/2010 je bilo 27 osnovnošolskih in 19 srednješolskih učiteljev mentorjev študentom na njihovi tedenski pedagoški praksi. V svojih poročilih o

izvedbi prakse so študentje poročali (Kolnik 2011), da so i-tablo imeli na 21 (77,7%) osnovnih in 13 (68,4%) srednjih šolah, od tega so imeli nameščeno i- tablo v 15 geografskih učilnicah na osnovnih šolah in 10 geografskih učilnicah na srednjih šolah. V času 14 dnevnega mentorstva študentom na učni praksi je i- tablo uporabljalo 5 učiteljev (18,5%) na osnovni in 4 učitelji (21,1%) na srednji šoli.

Devet učiteljev mentorjev, ki so bili mentorji študentom na pedagoški praksi in so pri pouku geografije uporabljali i-tablo v času njihove prakse, smo v raziskavi povabili k sodelovanju , odzvalo se jih je šest. V maju in juniju 2011 smo z njimi opravili individualne intervjuje, ki so v poprečju trajali 25 minut. V intervjujih sodelujoči učitelji geografije so povprečno imeli 8,4 let delovnih izkušenj in so i-tablo uporabljali od enega do treh let. Štirje so bili zaposleni na osnovni šoli (tri ženske in en moški), dva pa na srednji šoli (ena ženska in en moški). Intervjuvani učitelji geografije poučujejo na šolah, ki so locirane v SV Sloveniji , štiri šole so mestne (dve srednji šoli in dve osnovni šoli), dve osnovni šoli se nahajata na podeželju.

Osnovna izhodišča raziskovanega pojava smo oblikovali na osnovi deskriptivne metode z analizo pisnih dokumentarnih virov. Zbiranje podatkov za raziskavo pa je temeljilo na kvalitativni empirični pedagoški raziskavi, kot osnovni raziskovalni inštrument smo uporabili individualni nestrukturirani intervju, ki nam omogoča, da lahko pojav raziskovanja bolj osredotočeno in poglobljeno razložimo. Intervjuvani učitelji so imeli s široko zastavljenimi in odprtimi vprašanji z raziskovalnega področja možnost posredovati osebno mnenje kot pripoved. »Pripoved s pomočjo poizvedovanja (agl. narrative inquiry) in refleksije omogoča učitelju ustvarjanje novih pomenov in razlago, organizacijo lastnega znanja o učenju in poučevanju ter s tem spremembe v učni praksi, osebnem in profesionalnem razvoju.« (Konečnik Kotnik in Javornik Krečič 2011,10) Značilnosti poglobljenih intervjujev, kot jih navaja Legard s sodelavci (2003) so v možnosti generativnosti, saj se spodbuja samostojno oblikovanje odgovorov, v katerih se odražajo znanja in vedenja intervjuvanca. Pomembno je opozoriti, da v naši raziskavi ne gre za to, da bi reprezentativno prikazali opazovano tematiko, temveč smo zasledovali ali se sodelujoči ne glede na stopnjo poučevanja (osnovna oz. srednja šola) ujemajo v ključnih opazovanih predpostavkah. V predstavitvi rezultatov zaradi zagotavljanja anonimnosti nismo uporabili njihovih imen, temveč smo jim dodelili prvih šest črk abecede. Podatke smo obdelali na nivoju deskripcije. Mnenja intervjuvanih učiteljev geografije smo oblikovali v predvidenih štirih vsebinskih sklopih, v katerih smo ob generaliziranem opisu najpogostejših odgovorov, prikazali tudi konkretne odgovore posameznikov kot ilustracije zapisanih generalizacij.

4.3. Rezultati in interpretacija

a. Namen in pomen vključevanja i-table v pouk geografije.

Pri opisovanju razlogov za uporabo i-table pri pouku geografije so intervjuvanci izpostavili dva razloga. Prvi je bil vezan na razvijanje digitalne zmožnosti oz. kompetence, pomembne za življenje in delo kot skupne naloge vseh izobraževalcev, drugi razlog pa je velika multimedijsko zmožnost i-tabel z vidika učne nazornosti in poenostavitve dosedanje rabe različnih medijev.

Primeri odgovorov:

- Menim, da bodo elektronska učna pomagala npr. i-table v prihodnosti običajni način poučevanja, zato ne vidim vzroka zakaj nebi začela že sedaj.

Slej ko prej bodo tudi zvezke, učbenike in delovne zvezke učencev zamenjali notesniki.«

- I-tabla je eden izmed pripomočkov, ki jih uporabljam pri poučevanju. Tudi pri pouku geografije se učenci digitalno opismenjujejo zato je prav, da jim to omogočim.«
- Rad imam tehnične novosti, i-tabla mi je izziv kako združiti poučevanje geografije in sodobno tehnologijo.«
- Če za koga, je prav za pouk geografije i-tabla kot ustvarjena. Omogoča veliko učno nazornost: od slike in zvoka do grafičnega ponazarjanja. Tu je vse na enem mestu.«
- So mi jo čez poletje kar namestili v učilnico in seveda je bilo potem treba na seminar. Jasni so mi vsi »uradni« pomeni uporabe i-table, sedaj pa iščem še tistega svojega oz., tistega ki velja za pouk geografije«

b. Opremljenosti oz. dostopnosti do interaktivne table ter pogostost njene uporabe pri pouku geografije.
Na nobeni šoli, na kateri intervjuvani poučujejo, nimajo i- tabel v vseh učilnicah, na eni šoli imajo deset i-tabel, na dveh šolah pet i- tabel, na dveh šolah tri i- table in na eni šoli dve i- tabli. Vsi intervjuvani imajo i- tablo v svojih geografskih učilnicah, kar je po njihovem mnenju tudi razlog, da jo tako pogosto uporabljajo. Dva intervjuvana sta izrazila mnenje, da če bi se morala z učenci seliti, bi najverjetneje uporabljali i- tablo izjemoma, morda le nekajkrat na leto. Dva intervjuvanca pa sta bila mnenja, da je po vsej verjetnosti v takem primeru sploh še ne bi uporabljala.

Primeri odgovorov:

- Na šoli imamo tri i-table, ena je v geografski učilnici. Večinoma jo uporabljamo tisti , ki jo imamo v svojih matičnih učilnicah. Uporabljam jo vsak dan, vendar ne pri vseh šolskih urah.
- Uporabljam jo vsak dan, a niso vse generacije učencev enako zavzete in navdušene nad i-tablo. Vsi skupaj se še privajamo.
- Pri nas na šoli so se kar prijele, imamo jih veliko, ne vem koliko jih uporabljajo kolegi, sama jo uporabljam nekajkrat tedensko.
- Pričela sem postopoma, najprej z devetimi razredi. Tako imam sedaj zanje že veliko gradiv in načrtujem, da bom prihodnje leto pričela s pripravo gradiv še za ostale razrede.
- Že dve leti jo stalno uporabljam. Ne sicer vedno za vse možnosti, ampak vključena je pa pogosto.

c. Ocena lastne usposobljenosti za delo z interaktivno tablo.
Tri intervjuvani so osnovno znanje uporabe i-table pridobili na seminarjih, ki jih je organizirala šola za vse učitelje, prav tako trije pa so se individualno udeležili seminarjev. Vsi menijo, da so nadaljnja usposabljanja nujna, tako tista s tehnološkega področja, kot posebej s didaktično-geografskega področja.

Pet od sodelujočih učiteljev bi lahko glede na pet stopenjsko lestvico strategij procesa učenja z uporabo i-table po Hooper in Riebrju (1995) umestili na začetno stopnjo: seznanjenost z i-tablo in občasna uporaba le-te. Samo eden je izjavil, da interaktivno tablo uporablja vsakodnevno in je to postal njegov način poučevanja (stopnja integracije). Nihče ni izrazil menja, da lahko na podlagi znanja in izkušenj razvija nove strategije poučevanja ter se tako prilagaja raznolikim individualnim potrebam učencev in jih spodbuja k razvijanju njihovih učnih strategij (stopnja preusmerjenosti in evolucije).

Primeri odgovorov:

- Menim, da sem še na začetni stopnji, saj trenutno večinoma jaz delam s pomočjo i-table, učenci so vključeni le posamično in občasno. Potrebujem še malo kilometrine, da bom spoznala več različnih možnosti tudi zanje.
- Uporabljam le osnovne funkcije, saj se šele učim na tehniškem delu. Je pa super, ker imam možnost vključevanja filmov, pa spleta,ipd. Žal drugi učitelji geografije, s katerimi sodelujem, nimajo istega tipa i-table in si ne moremo med seboj veliko pomagati.
- Ko sem začel pred tremi leti sem bil precej negotov, a vztrajen. Danes imamo že več pisal za učence in tudi dodatne digitalne pripomočke-interaktivne tablice. Sedaj imam glavnino gradiv že narejenih in jih že izpopolnjujem, dodajam, spreminjam. Pa tudi učenci, tisti s katerimi delam že leto ali dve so napredovali in sedaj že sami znajo ali pa celo kaj novega odkrijejo.
- Imam že kar nekaj izkušenj in se sprašujem kako dalje, saj do ene stopnje zmoreš sam, potem pa spet potrebuješ koga, da ti malo pomaga naprej.
- Bi kar želela kakšen seminar posebej za učitelje geografije, ker osnovno že gre, potem pa je potrebno veliko lastnega raziskovanja in poskušanja. Za to pa nimam preveč ne volje in ne časa, pa tudi znanja ne. Sem na stopnji pripravljanja gradiv za občasno uporabo i table.

d. Prednosti in slabosti uporabe i table pri pouku geografije

Pri uporabi i-table pri pouku geografije so intervjuvani ugotavljali, da so pri svojem delu zaznali tako prednosti kot slabosti pri uporabi i-table. Pri tem pa se lahko nekatere značilnosti npr. hitra dostopnost do različnih medijev, občasno izkazuje kot prednost (preprosta manipulacija, ekonomična poraba časa), spet drugič pa kot slabost (prehiter potek dela, ki mu nekateri učenci ne morejo slediti). Med najpogostejše prednosti uporabe so navedli: večja motiviranost učencev, raznolika nazornost učnega gradiva, večja pestrost učnih ur, kvalitetnejši učni zapisi, dopolnjevanje učnega gradiva, delo s spletom, delo z zemljevidi, uporaba avdio in video posnetkov.

Primeri odgovorov:

- Opažam večjo aktivnost mojih učencev, bolj sledijo pouku, postavljajo več vprašanj.
- Na začetku so vsi zelo navdušeni, vsi bi prišli k tabli in kaj zapisali, so bolj pozorni na to kaj delam. Ampak nekateri se tudi tega načina dela hitro naveličajo.
- Uporaba zemljevidov, delo z nemimi kartami, prostorske predstave vse to jih sedaj bolj pritegne kot pa, če uporabljajo učbenike in atlase ali pa samo govorim.
- Največja prednost je hiter skok do multimedijskih gradiv, sedaj jih v pouk vključujem bistveno več in bolj raznolike kot prej.
- Ne uporabljam je še tako dolgo, da bi lahko govorila o učinkih takega dela na znanje učencev. Ja, učence delo s pomočjo i-table pritegne.

Kot slabosti uporabe i-table pa so najpogosteje opazili: tehnične pomanjkljivosti (slaba slika, zahtevna namestitev table, da jo lahko vsi vidijo oz. dosežejo, velikost table v velikih razredih, zakrivanje vidnega polja), cena i-table in dodatnih priključkov, cena vzdrževanja, hkrati z interaktivno tablo dela samo en učenec, potrebna je velika osredotočenost, saj delo poteka hitreje, zahtevna preglednost oz. urejenost gradiv in s tem pomnjenje kje je kaj, velika poraba časa za izdelavo učnih

podlag, nenehno dodatno usposabljanje. Med manj zaželene posledice uporabe i-table pa so tudi uvrstili:

- Večina učencev se digitalno hitreje znajde na veliki i-tabli kot jaz in se zato neugodno počutim. Sploh pregled nad veliko površino je precej težek, ker sem bolj majhna , pa še kdaj kaj »skoči« na drugo mesto kot je bilo prej in ne najdeš.
- Moja učilnica ni najboljša in zaradi več ur umetne svetlobe in močne žarnice me boli glava ali pa imam utrujene oči.
- Zgodilo se je, da sem cel popoldne porabila za pripravo dveh učnih ur, potem pa v šolo ni bilo elektrike.
- Ravnatelj je že govoril, da so žarnice za projektor drage in naj ne pretiravamo toliko z uporabo, ker ne bo mogel vseh menjati. Tudi menjava pisal in nabava ostalih pripomočkov je predraga.
- Zahtevno nenehno izpopolnjevanje, za seminarje moraš imeti čas in denar, do obojega pa je na šolah vedno težje priti.

V raziskavo vključeni učitelji mentorji so s svojim poučevanjem geografije s pomočjo i- table zadovoljni , čeprav se zavedajo, da so več ali manj šele na začetku. Mnenja so, da kot učitelji geografije ne zaostajajo za drugimi šolskimi področji glede pogostosti uporabe i-table pri pouku. Poudarjajo pa, da bi sami želeli več primerov dobrih praks, ki bodo kot sodelovalno učenje prehajale od enega do drugega učitelja ter pomagale pri premagovanju začetniške negotovosti. Z vidika usposabljanja učiteljev pa so kot pozitivno poudarili tudi veliko motiviranost študentov na praksi za uporabo i-table pri pouku geografije in možnost, da imajo le-ti sedaj kot obvezni študijski predmet na Univerzi v Mariboru tudi IKT pri poku geografije, česar sami tekom dodiplomskega študija niso imeli.

4. Zaključek

Ko razmišljamo o sodobnih učnih pristopih, ki bi podpirali razvoj ključnih kompetenc učečih se za potrebe sodobne družbe, vedno naletimo na priporočila o uporabi sodobne informacijsko komunikacijske tehnologije, kamor uvrščamo tudi interaktivne table. Da bi dejansko lahko zasledovali in uresničili ta cilj, je potrebno zadostiti številnim pogojem: od usposobljenih učiteljev in motiviranih ter digitalno pismenih učencev, pedagoških dokumentarnih usmeritev (npr. učni načrti), novih didaktičnih pristopov do ustrezne strojne in programske opreme. Učinkovito poučevanje z i-tablo zahteva torej kompetentne in motivirane učitelje. Predvsem se morajo le-ti zavedati didaktične vrednosti i-table in njenega učinka na izobraževanje. Slovenski učitelji so v zadnjih letih imeli možnost udeležiti se pedagoških delavnic in seminarjev, ki pa ponujajo usposabljanje predvsem za tehnično uporabo i-table, premalo poudarka pa je na novih metodah in oblikah predmetnega poučevanja. Čeprav se slovenski učitelji geografije vedno pogosteje odločajo za uporabo IKT opreme, ki jo imajo na šolah, se še vedno ne čutijo dovolj didaktično usposobljene za večje spremembe v izboru učnih metod in oblik dela ter s tem za razvijanje novih učnih strategij. V raziskavi sodelujoči učitelji geografije, mentorji študentom na njihovi učni praksi, pri uporabi i-table ugotavljajo predvsem večjo multimedijsko podporo pri organizaciji pouka ter večjo motivacijo učencev. Ob teh prednostih kritično ugotavljajo določene slabosti uporabe i-table (zlasti s tehničnega in finančnega ter organizacijskega področja), ne zaznavajo pa še večje didaktične učinkovitost pouka oz. učinkov uporabe i-table na učno uspešnost njihovih učencev. Najpomembnejša didaktična vednost i-table pa je prav v

interaktivnosti, ki omogoča sodobni način komuniciranja in aktivne metode in oblike učenja geografije, kar nedvomno spreminja vlogo učitelja. Sodobne učne tehnologije kot je interaktivna tabla omogočajo, da učitelji spodbujajo individualno, v učenčeve zmožnosti usmerjeno učenje tako, da učenec išče sebi lastne poti do znanja torej razvija lastne učne strategije.

Na osnovi odgovorov interviuiranih učiteljev mentorjev lahko ugotovimo, da še vedno manjka ustreznih primerov dobrih učnih praks kot tudi raziskav oz. učiteljskih samoevalvacij učinkov pouka s pomočjo i-table. Tako se z vidika pouka geografije lahko pridružimo mnenju Bačnikove (2008), ki ugotavlja, da nimamo še kakovostnega vpogleda na vpliv i-table na učne interakcije in na same učne dosežke.

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MENTOR TEACHERS' PERCEPTIONS ABOUT THEIR ABILITY TO TEACH GEOGRAPHY THROUGH INTERACTIVE WHITEBOARDS

Summary

When we think about modern teaching approaches that would support the development of core competencies for learning needs of modern society, we get recommend actions on the use of modern information and communication technologies, which also includes an interactive whiteboard.

To effectively pursue and achieve this goal it is necessary to a number of conditions, from the good trained teachers and motivated students, educational documentaries, didactic approaches to hardware and software. Effective teaching with whiteboard requires competent and motivated teachers. In particular, they should be aware of whiteboard teaching values and its impact on education.

Slovenian teachers in recent years have had the opportunity to attend many seminars and providing training mainly for technical use of whiteboard, not enough emphasis were on new methods and forms of teaching. Geography teachers are increasingly choosing to use ICT equipment that they have at schools, but still do not feel sufficiently trained for teaching introduction of new teaching methods and forms of work, as well as for developing new teaching strategies.

The opinions of teachers of geography, which were included in the survey, have shown that they use interactive whiteboards for multimedia support in the organization of instruction and they are satisfied with the motivation of their students. They have detected many of the benefits of working with interactive whiteboard and also some critical notes of disadvantages of using it (cost, technical requirements of preparing teaching bases, etc.) They are not yet perceived great effectiveness of instruction in the didactic sense. The interactivity is the most important didactic roll of interactive whiteboards, which undoubtedly changes the role of teacher.

Modern ICT such as interactive whiteboard enables teachers to promote individual, to student orientated learning abilities that students can seek their own path to self-knowledge and develop their own learning strategies.

We can conclude that teachers still do not have enough examples of good teaching practices for the effective use of interactive whiteboards, as well as we do not have geography teacher self-evaluation of the effects of instruction using interactive whiteboards. Thus, in terms of geography lessons can be subscribed to the opinion of Bačnik (2008), who notes that in Slovenia we do not have access to high quality interactive whiteboards impact on learning and interaction on academic achievement alone.

SHOPPING AND BUSINESS CENTRES IN SARAJEVO

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Abstract

Shopping and business centres in Sarajevo

In the paper, influence of shopping and business centres: Mercator, Tuš, Obi Robot, Konzum and BBI on development of Sarajevo city is analysed. Results of the survey made among visitors indicate to presence of social functions (walk, leisure, recreation, fun, socialization) in five centres. The mentioned functions are more expressed in new shopping centres, while shopping is the most important motive of visits to commercial centres. Sarajevo city makes, with its surrounding, a functionally connected wholeness – city, respectively an urban region.

Key words

Shopping and business centres, central business centre, public space, social functions, Sarajevo

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1. Introduction

For needs of this research, secondary sources of data have been used, gathered by utilisation of three basic methods: gathering the data in the field, surveying the citizens and interviewing the employees. The data on type of services in the mentioned shopping and business centres were gathered in the field. Planning and conducting the survey research have given receptive results of the demanding task in spatial distribution of shopping and business centres in Sarajevo, Ilidža, Hrasnica and Vogošća.

Advent of shopping and business centres created as per West countries model is one of (spatially) the most visible characteristics of transition from real-socialist planned economy into market economy system in the countries of Central and Southeast Europe. In addition to commercial-business function, such centres are bearers of other numerous (additional) functions in the countries in which they exist, first of all, of the function of spending free time and leisure (Pacione 2009).

Shopping and business centres of the economically developed countries of market economy, unlike the impression suggested by their names, are not only an element of economic functions of the city, but also an integral part of its social structure (Jakovčić, Spevec, 2004). Diversity of functions of shopping and business centre and its particular inclusion into the sphere of social activities, with permanent presence of marketing messages in media space, affects also on intertwining of motives of visits to such building, which may reflect reversibly not only on economic structure of Sarajevo city, but also on transformation of its traditional social spaces: street, square, market, park, rural settlements (Hallsworth 1994).

That fact, with an obvious increase in number and the area of shopping and business centres in Sarajevo, encouraged the research conducted in commercial-business centres: BBI, Mercator, Tuš, Konzum and Obi. Research results show the trends close to those of economically developed countries, in which shopping and business centres have been existed more than half a century (R. Nurković 2010). The centres of Mercator, Robot Tuš and Interex are an area in which visitors satisfy, in addition to function of supply, numerous other needs, mostly the need for social contact and spending free time. It is formed as „pseudo“ public space in urban structure of Sarajevo.

2. Objective and methodology

Objective of this work is to show development of shopping centres on the edges of the city, as well as on the intersections of major city's traffic arteries. Their position, structure and functions have been shown in the paper. This paper aimed at researching a current state of functions of shopping centres on the margins of city and at ascertaining whether any differences exist in development of functions between single centres. The hypothesis, from which the research started, is that in commercial centres on the city edges commercial functions are still primarily developed, while social functions are in the background.

The data on areas of single shopping centres have been gathered by using secondary sources of data from the Economic Council of Sarajevo and the State Agency for Statistics. The data on structure of the particular shopping centres have

been collected by observation method and mapping the activities in particular shopping and business centres in Sarajevo, and in settlements of Ilidža, Hadžići and Vogošća, particularly from the aspect of the mentioned additional functions.

In order to obtain the data on functions of the shopping centres, a survey has been conducted and an interview method has also been used. The survey was conducted in the shopping centres of BBI, Mercator, Tuš, Konzum and Obi, in the period from 15th to 25th September 2010, when 1.550 visitors were surveyed. For the sake of insuring the representativeness, participants were selected by systematic sample method, by surveying at the entrances/exits from the shopping centres during their visits to the centres. Most of the people surveyed have given a response according to conducted survey in shopping centres.

After 1995, big spatial and functional changes occurred in urban development of Sarajevo. Regardless of position of a particular settlement in specific urban hierarchy, each urban settlement exerts influence on its immediate surroundings. A new type of urban-spatial pattern started to appear in Sarajevo, which distinguishes itself according to its appearance from the recognised hierarchic cities that we have analysed in recent years. We will focus our research primarily on development of urbanisation, and, in addition, to expansion of new shopping centres in the very centre of city and on the edges, on the tendencies of dynamical and diverse housing construction and arrangement of large traffic infrastructure. The mentioned processes strongly affect the contemporary spatial and functional structure of the spatial plan of Sarajevo.

In the place of the former industrial enterprises, smaller workshops and warehouses, new multi-storey business-residential buildings with main offices of the large financial, information, commercial and other firms have been constructed recently (Lorber 2006). New urban development of Sarajevo is connected with other smaller towns into an interconnected urban system where each of them provides separately the services and products for its surroundings, attached region and its hinterland. They are followed by specialized shops (banking services, legal services, big market, diversified labour force, extensive public services, automobile showrooms and furniture shops, as well as computer equipment and alike). New economic activities entered also the former industrial zones and changed their structure. Recently, service activities have been developing intensely. The firms with computer systems help the banks in development of more efficient, computer-run banking system. Tertiary activities have strengthened automotive flows and accelerated urbanization of the city edges. On the other hand, strong pressure of the foreign and domestic investors leads to poor quality and illegal construction (Černe 2003). Tendencies of urban development concentration and construction are followed by permanent increase in number of cars, thus creating serious traffic problems in Sarajevo.

3. Spatial distribution of Shopping Centres in Sarajevo

Today, shopping and business centres in Sarajevo are developed on locations that have already been marked by pre-war industrialization. Business centres are expanding and occupy new areas. Three types of locations of shopping centres can be separated in Sarajevo: in centre of city, on intersections of main city traffic arteries, and in vicinity of the road junctions on the edges of the city. There are

eight shopping centres in the centre of Sarajevo city, while on the intersections of major urban traffic lines and in vicinity of the road junctions there are three shopping centres. On the one hand, we have also a strong concentration of the business centres in several Sarajevo's municipalities. These are: Stari Grad, Centar, Novo Sarajevo, Novi Grad, Ilidža, while existence of the shopping centres in the area of municipalities of Hadžići, Trnovo, Ilijaš and Vogošća is of considerably smaller extent.

There are two concentration zones of the shopping centres in Sarajevo. The first concentration zone is in the city's south part. There are several shopping centres there. Among other, there is a shopping centre "Robot", which is located in Sarajevo's settlement of Hrasno, founded in 2002, and occupies an area of about 12.000 m². In immediate vicinity of that centre there is one more shopping centre, which is also in ownership of the "Robot" group, and is located in Novo Sarajevo on the traffic route in vicinity of the tramway track. It was established in mid-2007 and covers an area of about 14.000 m². We have already mentioned that "Robot" is the first larger shopping centre in Sarajevo, founded in 1999, and since then it has been developing permanently. Today, "Robot" employs 700 workers in Sarajevo, and 600 workers in Bihać. It uses about 55.000 m² of own sales space where a wide selection of food and chemical products is represented, in addition a selection of technical goods, audio and video equipment, dishes and toys, and own warehousing space. In addition to these two shopping centres in Sarajevo, there is also a shopping centre "Robot" on Ciglane, founded in 2000, with sales area of 9.000 m², and a shopping centre "Robot" in Rajlovac, founded in 2004, with sales area of 20.000 m² (Tab. 1 and 2).

Tab. 1: Shopping and business centres in Sarajevo, 2010.

Shopping and business centres	Year of foundation	Area	Address
"Robot"	2000	9.000 m²	Hakije Kulenovića bb
"Robot"	2002	12.000 m²	Azize Šaćirbegović bb
"Robot"	2004	20.000 m²	Rajlovačka cesta 41
"Robot"	2007	14.000 m²	Zmaja od Bosne bb
"Interex I"	1999	3.000 m²	Stupska bb
"Interex II"	1999	1.950 m²	Kolodvorska 12
"Mercator"	2003	13.000 m²	Ložionička
"Mercur"	2008	16.000 m²	Stupska bb
„Bingo"	2009	12.648 m²	Hadžići
„Tuš"	2008	9.000 m²	Ilidža
„Obi"	2009	8.547 m²	Ilidža
„BBI"	2009	3.355 m²	Stari Grad

Source: Archieves of shopping centres, 2010

"Mercator" centre was founded in 2003 and since then it has been in permanent rise. Shopping centre "Mercator" is part of the firm having the same name, which has its sales centres of different capacities and contents in Slovenia, Croatia, and Serbia and in Bosnia and Herzegovina. Total number of employees is over 20.000 people, and the number of employed people in Sarajevo is 1.045. "Mercator" centre differs from other shopping centres according to ambient itself. With the space looks, particularly of interior, selection of business contents and promotion activities, it tries to send a message that it may be a place for meeting and socializing, and the shopping becomes a particular experience.

In immediate vicinity of "Mercator" centre in Novo Sarajevo, there is a shopping centre "Konzum" and several supermarkets. Among other, there is also "Interex" centre, which was founded in 1999 and uses the sales area of 1.950 m². Today, "Interex" is present in 19 towns with 21 sales facilities, and in years to come "Interex" is planning further development and doubling the leadership position in the market. It employs 80 workers in Sarajevo, and an average sales area is 2.500 m² (Fig. 1).

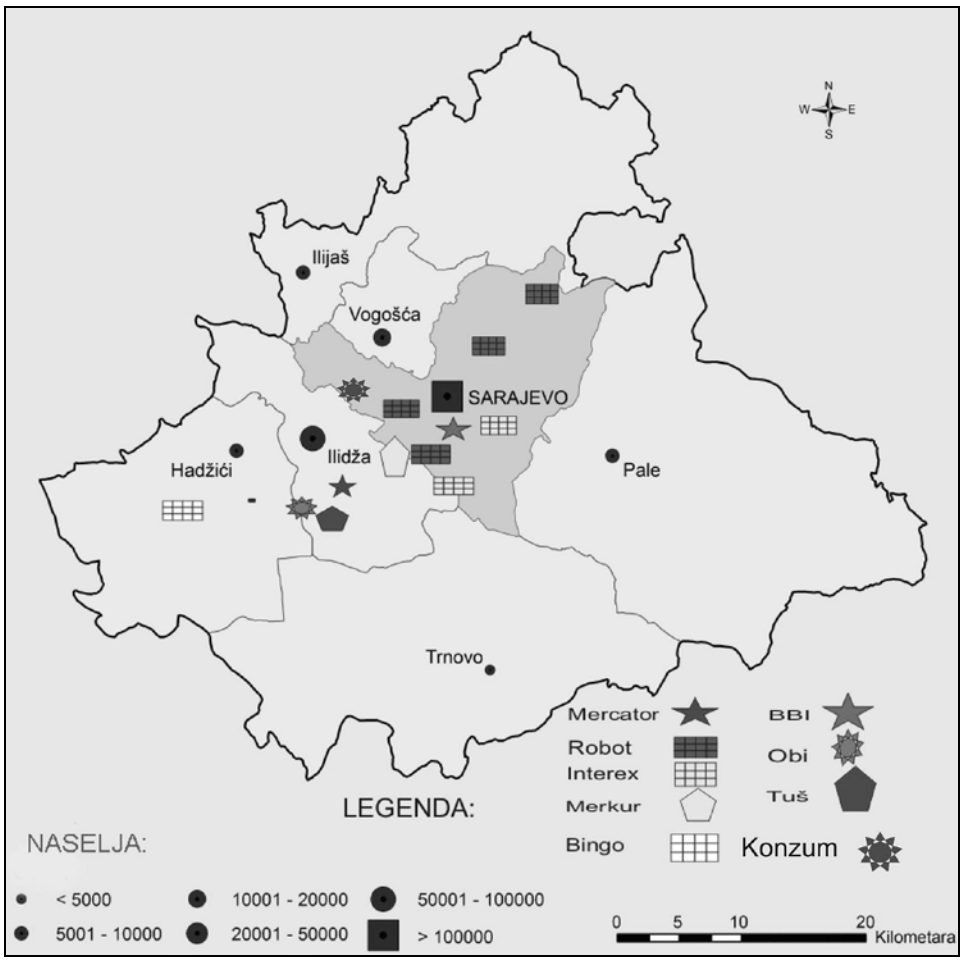

Fig. 1: Spatial distribution of the shopping centres in Sarajevo, 2010.
Source: Nurković, R., 2010.

4. Structure of business spaces and fuctions of Shopping Centres

On the peripheral parts of Sarajevo city and on the intersections of more important city's traffic arteries, shopping centres of Mercator, Bingo, Tuš, Konzum, Merkur, Interex and Obi have been constructed, as well as a number of hypermarkets. From the survey that we have done in the field, related to shopping centres, it is seen that one of main characteristics of the shopping centres is existence of the insured parking area.

All shopping centres in Sarajevo have the insured parking areas, but only 'Mercator' and BBI have the insured, covered parking lots. Contrary to these, shopping centres in central parts of the city have the insured, covered multi-storey parking lots. The main reason for this is a lack of free space. All shopping centres are characterised by poor adjustments to disabled persons, which can be reduced to existence of several parking places for shopping.

All three shopping centres possess a hypermarket of area over 2500 m^2, in which the goods are sold according to self-service principle. Number of premises per single shopping centre is significantly different. So, in 'Mercator' shopping centre, in addition to hypermarket there are 12 premises of different shopping and service functions. In other shopping centres, their number is considerably smaller: 3 premises in shopping centre of 'Interex' and 4 premises in shopping centre of 'Robot'.

There are two basic functions of shopping centres: commercial and social functions. The centres in Europe and North America increasingly offer all what customer needs in one place. With such business policy the centre attracts the customer, and the customer saves the time. However, in order to enable implementation of such business policy, it is necessary for the shopping centre to possess all functions and all types of services developed.

The observed three shopping centres still do not make such form of shopping possible. From the data obtained by the mapping in the field, it is noticeable that even 50% of total number of premises is intended for retail trade. Data between the single centres considerably differ and range from 50% in shopping centre Mercator, to 60% in shopping centre Robot, Konzum and BBI. However, during analysis of particular shopping centres, taking into consideration only the structure of business spaces of the shopping centres according to number of facilities of certain purpose, may lead to wrong conclusions. Namely, if instead of the number of premises, a structure of shopping centres according to area of business spaces is observed, significantly different data will be obtained. On the city edge, and in vicinity of major traffic arteries and farther, premises intended for retail trade of the products from China and Turkey are prevalent. Differences are significant in the centres in the city centre.

In the countries of West Europe and North America, shopping centres are not only the form of retail trade, but increasingly the post-modern place of consumption, in which commerce and leisure are interwoven at the same time. These are the so called "cathedrals of consumption", the places in which shopping is a matter of prestige, power and symbolism, significantly more than a simple economic need (Hallsworth 1994).

In order to contribute to attractiveness of space and pleasure of shopping, the promenades, fountains, spaces for rest and alike are arranged within the shopping centres. Shopping centres become the gathering places that are available for everyone (Lorber 2010).

Tab. 2: Number and structure of business spaces in choosen shopping centres in Sarajevo.

Type of business space	Mercator		Tuš		Interex		Robot		Merkur		Bingo	
	F	%	F	%	F	%	F	%	F	%	F	%
Retail trade	14	11,8	6	17,1	4	7,5	4	6,4	1	3,4	2	6,6
Hypermarket	9	7,6	4	11,4	3	5,6	8	12,9	2	6,8	3	10,0
Clothing and footwear, children's toys	21	17,7	2	5,7	12	21,0	6	9,6	2	6,8	3	10,0
Home equipment and technical goods	8	6,7	2	5,7	3	5,6	5	8,0	3	10,9	2	6,6
Flower shops, galleries, newsstands, jewels and	11	9,3	-	-	5	9,4	4	6,4	2	6,8	2	6,6
Services	9	7,6	5	14,2	6	11,3	4	6,4	1	3,4	1	3,3
Cosmetics and hairdresser's shops	2	1,6	2	5,7	2	3,7	4	6,4	2	6,8	1	3,3
Chemist's	3	2,5	1	2,8	1	1,8	3	4,8	1	3,4	1	3,3
Optics	2	1,6	1	2,8	1	1,8	2	3,2	3	10,9	2	6,6
B&H lottery and betting places	3	2,5	2	5,7	2	3,7	3	4,8	1	3,4	1	3,3
Photo studio	4	3,3	2	5,7	3	5,6	2	3,2	1	3,4	1	3,3
Playrooms for children	3	2,5	-	-	1	1,8	1	1,6	1	3,4	1	3,3
Fine repairs (shoemaker, locksmith...)	2	1,6	-	-	1	1,8	2	3,2	1	3,4	1	3,3
Tourist agencies	-	-	-	-	-	-	-	-	-	-	-	-
Financial services	2	1,6	2	5,7	1	1,8	2	3,2	1	3,4	1	3,3
Banks	1	0,8	-	-	-	-	1	1,6	1	3,4	1	3,3
Exchange offices	2	3,3	-	-	1	1,8	1	1,6	1	3,4	1	3,3
Catering	12	10,1	3	8,5	-	-	4	6,4	2	6,8	1	3,3
Cafe	5	4,2	2	5,7	4	7,5	2	3,2	1	3,4	2	6,6
Restaurants, pastry shops	5	4,2	1	2,8	3	5,6	3	4,8	2	6,8	3	10,0
Total	118	100	35	100	53	100	62	100	29	100	30	100

Source: Archives of shopping centres in Sarajevo, 2010.

A survey was conducted in which several questions referred to reasons of arrival in a single shopping centre to show development of functions of the observed shopping centres.

The second concentration zone of the shopping centres is on Stup, in western part of the city not far from the road junction on the city edge. This zone is dominated by "Konzum" and several more centres. This is where the shopping centre "Interex" is located with the sales area of 3.000 m². In immediate vicinity of "Interex" there is a new shopping centre "Merkur", founded in mid-2008. This centre utilises the sales area of 16.000 m² and has 360 free parking places. In this centre there are 100 employed workers. All shopping and business centres have a big parking lot insured. After the war from 1992 to 1995, a large capital investment arrived from the European Union and opening of local producers towards West-European market started. In addition to general social changes, transition process from the centrally planned to market economy also brought the changes in the economic structure of the Sarajevo region, and other regions of Bosnia and Herzegovina.

5. Occupationa structure of employed people in shopping centres

General and expert knowledge of the employees make the basic qualitative characteristics without which development of shopping and business centres cannot be imagined. They themselves require higher education of employees that enables more successful professional mobility and flexibility. That need is a result of development, technical progress, introduction of new technologies in shopping and business centres and more explosive spreading the knowledge. Due to a smaller number of employed people, small needs for electrical power, water as well as smaller volume of costs, local population might find jobs in them. Development of shopping and business centres in future economic development could go in direction of a more balanced number of employed workers in the Sarajevo region. Professional education is important for productivity of the labour force in shopping and business centres of the Sarajevo region, which together with in-service training forms the occupational structure.

With overall economic development in the Sarajevo region education of workers in all economic activities has improved as well. New, younger workers are more educated than those already working. Occupational structure has improved on account of employment of new workers. In shopping and business centres of "Mercator", "Interex", "Robot" and "Merkur", occupational structure of the labour force has been monitored on different levels. In 2010, occupational structure of the employed people was analysed per shopping and business centres. In 2010, the largest number of workers in them was with secondary school qualifications: 1.432 or 34.1% of all employed people.

These are followed by employed people with two-year post-secondary school qualifications: 498 or 11.8%, then 535 or 12.7 % with university qualifications , 248 or 5.9 % with lower educational background , 196 or 4.6 % of unskilled workers and 327 skilled workers or 7.8 % of all employed people (Tab. 3 and Fig. 2).

Tab. 3: Structure of employees as per occupational structure in shopping centres of the Sarajevo, 2010.

Education	Number of people	% of total
University education	368	8,7
Higher education	498	11,8
Secondary school education	1432	34,1
Lower education background	248	5,9
Highly skilled workers	535	12,7
Qualified workers	327	7,8
Semi-skilled workers	218	5,2
Unskilled workers	196	4,6
Total	4190	100

Source: Archives of shopping centres, 2010

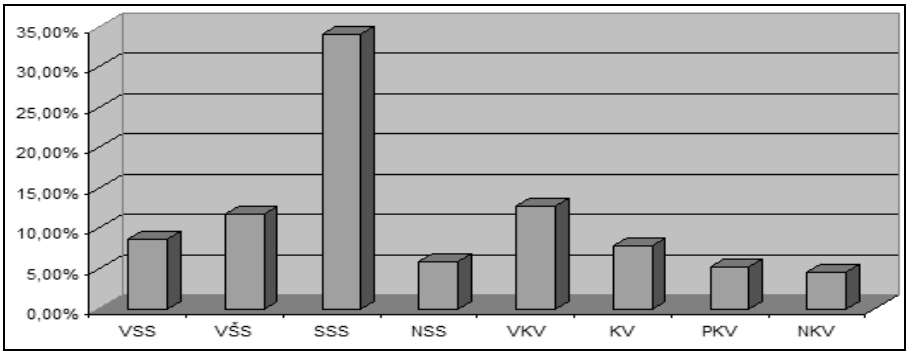

Fig. 2: Share of employed people according to occupational structure of the Sarajevo, 2010
Source: Archives of shopping centres, 2010.

Despite big efforts of educational policy that tended to formation of the qualified labour force by network of elementary and secondary schools, shopping centres of the Sarajevo region still have an unfavourable occupational structure. This is primarily because the industry in the Sarajevo region has developed by leaning on cheap and uneducated labour force. Development of other tertiary activities also introduced numerous changes in development and structure of the Sarajevo region population.

6. Results of Survey

Results of survey refer to a reason and a partner with whom a visitor came to shopping centres "Mercator" and "Robot" in central part of the city, and in "Interex" in Sarajevo's settlement of Stup. It has been surveyed with whom the visitors came to shopping centre, and if during the visits on that day they were in a cafe or a restaurant (Fig. 3, Tab. 4 and 5).

Tab. 4: Reasons for visit to single shopping centres of the Sarajevo, 2010.

REASONS	ROBOT	MERCATOR	INTEREX	UKUPNO
A: shopping	49,3	44,5	46,7	46,0
B: offer of accompanied services and catering	4,4	5,4	1,6	3,9
C: pleasant ambient	18,8	27,4	11,1	21,1
D: socializing with friends	2,2	2,4	1,3	2,0
E: easy accessibility	17,3	16,1	23,3	18,3
F: other	8,1	4,2	16,1	8,7

Source: Survey research.

Even 46% of the people surveyed stated the shopping and a good offer of goods as a main reason for their arrival, and only 2% of the people surveyed mentioned socializing with friends as a main reason for their arrival. A good supply of accompanying services and catering functions, as a main reason for their arrival, were mentioned by 3.9% participants, which shows strengthening the service functions in the shopping centres and longer time of visitor's stay in the centre.

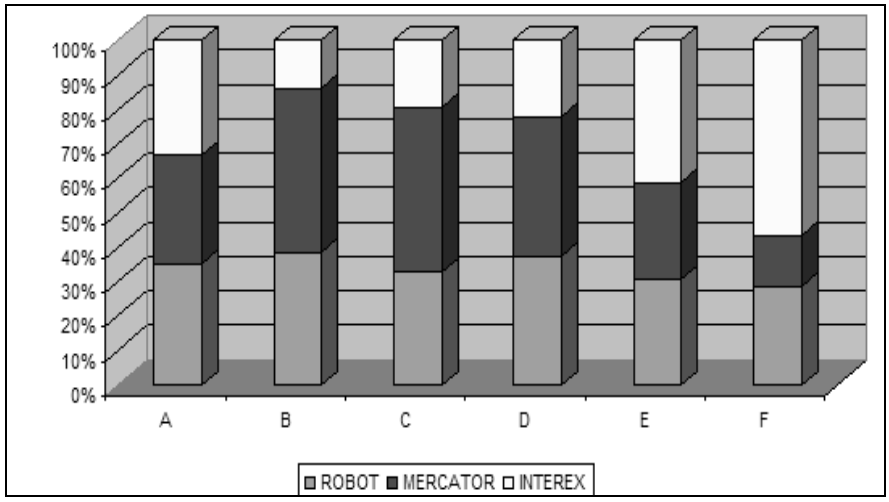

Fig. 3: Reasons for visit to single shopping centres of the Sarajevo, 2010.

This is also confirmed by the data that even 30.7 % of total number of participants visited cafe or a restaurant during their stay in the shopping centre. Differences between the single centres are not too big, although it could be expected that, due to position of 'Mercator' in the residential district, a larger number of participants would mention socializing with friends as a main reason for arrival to a shopping centre.

Tab. 5: Partner with whom a visit to shopping centre was paid, (in %), 2010.

REASONS	ROBOT	MERCATOR	INTEREX	TOTAL
A: alone	33,5	57,8	30,3	41,5
B: with a boyfriend/girlfriend	6,7	2,7	5,7	5,0
C: with friends	12,7	12,2	11,7	12,3
D: with a spouse	17,8	9,5	25,6	17,0
E: with family	28,2	17,8	26,8	24,2

Source: Survey research.

Reasons for arrival to a shopping centre do not change considerably in relation to time of survey, which indicates to almost exclusive monofunctionality of shopping centres. From the mentioned data, it is noticeable that the shopping centres on the edge parts of the city still have much more developed commercial functions, while social functions are still relatively poorly developed. This is supported by the fact that even 41.5% of the people surveyed visited shopping centre alone. There are also differences between the particular times of the day so that numbers of the visitors who come to shopping centre alone decrease from morning to evening, and equally numbers of the visitors who come to the centre with family or a spouse increase.

7. Conclusion

The first shopping centres in the world were opened in the 1920s. In Bosnia and Herzegovina, the shopping centres appeared at the end of 1995. The first shopping centre that was opened in Sarajevo was "Robot". Soon after this one, "Interex" centre was also opened, more precisely in 1999, and "Mercator" centre in 2003. Today, eight shopping centres with different functions are located in central part of Sarajevo, and on the edge parts of the city and on intersections of major traffic arteries there are three more shopping centres.

Shopping centres in Sarajevo develop on the locations, which have already been marked by the pre-war industrialization. Business centres expand and occupy new areas. In Sarajevo, three types of locations of shopping centres can be distinguished: in the city centre, on the intersections of major traffic routes, and near the road junctions on the city edges. On the one hand, we have a strong concentration of business centres in several Sarajevo's municipalities, and these are: Stari Grad, Centar, Novo Sarajevo, Novi Grad, Ilidža, while the existence of shopping centres in the area of municipalities Hadžići, Trnovo, Ilijaš and Vogošća is of significantly smaller extent.

For the needs of this research secondary sources data have been used, gathered by utilisation of three basic methods: gathering the data in the field, surveying the citizens, and interviewing the employees. The data on type of service in the mentioned shopping centres have been collected in the field. Planning and conducting the survey have given the receptive results of the demanding task in the spatial distribution of shopping centres in Sarajevo.

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SHOPPING AND BUSINESS CENTRES IN SARAJEVO
Summary

Commerce is one of important urban functions, which had a strong influence on rise, development of urban functions and development of Sarajevo city. However, over the time retail trade has undergone huge changes, adjusting to demands and needs of increasingly larger population-changing the size of sales outlets, their position, retail business; all of these according to the changes in spatial distribution of population in Sarajevo. The objective of this paper was to show development of the shopping centres on the edges of the city, and at the intersections of major urban highways. Their position, structure and functions have been shown in this paper.

The data on the structure of single shopping centres have been gathered with observation method and mapping the activities in particular shopping-business centres in Sarajevo, in settlements of Ilidža, Hadžići and Vogošća, particularly from the aspect of the mentioned additional functions. A survey was conducted in shopping centres of BBI, Mercator, Tuš, Konzum and Obi in the period from 15th to 25th September 2010, when 1.550 visitors have been surveyed. Most of the people surveyed gave a response according to the set up survey in the shopping centres. In the place of the former industrial enterprises, smaller workshops and warehouses, and new, multi-storey shopping-residential buildings, with headquarters of big financial, information and commercial centres, have been constructed lately.

There are two concentration zones of commercial centres in Sarajevo. The first concentration zone is in the southern part of the city. There are several shopping centres there. Among these are: Shopping centre "Robot", which is located in Sarajevo settlement of Hrasno, opened in 2002 and occupying an area of around 12.000 m². In immediate vicinity of that centre there is one more shopping centre, which is also in ownership of the "Robot" group, and is situated in Novo Sarajevo, on the road near the tramway track. It was established in the mid-2007 and covers an area of about 14.000 m². “Robot” employs 700 workers in Sarajevo and 600 workers in Bihać today. It uses about 55.000 m² of own sales area where a wide range of food and chemical products is represented: a selection of technical goods, audio and video equipment, dishes and toys, and its own storage area. Occupational structure of the employed people in 2010 was analysed in shopping and business centres. In 2010, the largest number of workers in them was with secondary school qualifications 1.432 or 34.1% of all employed people. These are followed by employed people with two-year post-secondary school qualifications 498 or 11.8%, then 535 or 12.7% with university qualifications, 248 or 5.9 % with lower educational background , 196 or 4.6 % of unskilled workers and 327 skilled workers or 7.8% of all employed people.

For the purpose of research and development of shopping centres’ functions, the visitors were asked for their reasons in coming to the shopping centres, if they used any of the services and had visited a centre. Even 46% of the people surveyed stated that shopping and the good offer of goods were main reasons for their arrival, and only 2% of the surveyed people mentioned socializing with friends as the main reason for their arrival. From the mentioned data, it is noticeable that shopping centres in the fringe areas of the city still have much more developed commercial functions, while social functions are still relatively poorly developed.

SOCIO - ECONOMIC AND GEOGRAPHICAL FACTORS OF DEVELOPMENT - STUDY CASE: CITIES BERANA, ANDRIJEVICE AND PLAVA

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Abstract

Socio - economic and geographical factors of development - study case: cities Berana, Andrijevice and Plava

The paper analyzes the socio-economic and geographic factors for Berane Andrijevice and Plava. The above urban settlements are located in the northeastern part of Montenegro. Isolated traffic and geographical position adversely affects the economic and social development of urban settlements. For the development of cities of greater importance are the geo-morphological and hydrological characteristics of the terrain, the climate and geology, which limits greatly compensates for modern construction techniques. Berane population increased in the period 1948-2003 to 26.81%, while in Andrijevica decreased by 42.48% and 12.43% of Plav. These data suggest to us most vividly, what are the demographic changes occurring in the region. Age groups, due to migration and decreasing birth rate changes and gets unfavorable features - reducing the proportion of younger and older increases the proportion of the population. In both cases, the disturbed age structure has a reverse effect on the movement of the population (the size of reproductive contingent), but also to all other structures of the population (the size of contingent employment, population, compulsory school contingent, contingent dependent population ratio).The main characteristic of modern urban development of cities provide processes of industrialization and urbanization. However, the economic crisis in Montenegro at the beginning of the nineties due to isolation, the economic and social strategy of circling and lack of long term economic development, stopped the social, economic, technical and technological development of urban settlement Berane, Andrijevica and Plav.

Key words

Berane, Andrijevica, Plav, geographical location, natural features, population, economy, development.

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1. Introduction

Urban settlements - Berane, Andrijevica and Plav, are located in the northeastern part of Montenegro, between 42 º 28 'and 42 º 58' north latitude and 19 º 38 'and 20 º 6' east longitude. This is the part of the territory of Montenegro, which includes the upper catchments Lima, from its source to gorge Tivran. According to the 2003 census, the town of Berane town which is also the regional center of the northeastern part of Montenegro's population of 12,651 lived in Andrijevica 1193 inhabitants, and Plav 5,554 inhabitants. Isolated traffic and geographical position adversely affects the economic and social development of Berane, Andrijevica and Blue. Isolated traffic and geographical position adversely affects the economic and social development of Berane, Andrijevica and Plav. With the exception of the continental branch of the main road no other important roads do not intersect or touch the considered geo-space.

The development and deployment of a modern economy is determined by numerous natural characteristics of the land. Since the natural characteristics of the development towns of Berane, Andrijevica and Plav are the most important geo-morphological and hydrological characteristics of the terrain, the climate and geology, which limits greatly compensates for modern construction techniques. Discrepancy between available natural characteristics of the terrain and cities of modern economy is determined by demographic and economic structure. Age groups, due to migration and decreasing birth rate changes and gets unfavorable features - reducing the proportion of younger and older increases the proportion of the population. In both cases, the disturbed age structure has a reverse effect on the movement of the population (the size of reproductive contingent), but also to all other structures of the population (the size of contingent employment, population, compulsory school contingent, contingent dependent population ratio).

Gradual transformation of the population, have contributed to numerous economic and non-economic factors. They are, among other things, they see the rise and rapid decline in non-agricultural rural population. The process of land reclamation and the transfer of the workforce in non-agricultural activities, and accelerated the depopulation of rural areas, the aging and feminization of the village. Negative selection has led to very adverse economic structure of the population, with respect to labor and production capacity. Moreover, these uncontrolled demographic processes are not accompanied by adequate measures other necessary changes in the economy, which has been shown that the qualitative properties of optimal population and favorable economic structure, now a component in guiding the transformation of space, the decisive factor in the differentiation and polarization of the environment.

2. Methodology

The core of the methodological procedure used in this research makes the geographical (spatial) method and consisted of Berane, Andrijevica and Plav. For Collection of data pertaining to basic demographic and socio-geographical factors of development, we used a statistical method. Comparative method has enabled us to social and economic development factors we look at the comparison of the population of the municipality of Berane, Andrijevica and Plav. Permeated through the entire text of the method and integrity, thanks to which we were able to identify, define and assess possible limitations of economic development. Historical

method gave us the opportunity to look at the evolution of the development of urban settlements Berane, Andrijevica and Blue, that is based on archaeological findings to reconstruct the time of settlement. The scientific explanation of terms two methods were applied as follows: analytic and synthetic. Analytical methods are considered some of the dimensions of research subjects, a synthetic whole the relations between the subject and proposed measures to stem from there.

3. Geography of cities

Berane, Andrijevica and Plav have a complex geography that is naturally heterogeneous and with various levels of benefits for the use of space. Although located in the Valley of Lima, the cities (except Berane) had no significant role in the structure of geo-Montenegro. The town Andrijevica and Plav is peripheral compared to the main traffic flows in Montenegro, given that in this region does not cross the road, with bond functions in the organization of space. Berane have the most important position in transportation due to the main road. Territory of the municipality, Adriatic highway coming from Bijelo Polje, Berane northwest of through gorge Tivransku gorge, entering the city and continue east to Rožaje. It is a broad highway of regional significance, which connects the neighboring municipality of Bijelo Polje, Berane and Rožaje and simultaneously makes it out to Serbia. Wind of Ribarevine, according to Kolašin and Mojkovac go to Podgorica and Montenegrin coast. Another important road is the main road Berane - Andrijevica - Plav, which is in the territory of Andrijevica the Bridge Bandović, provided through Trešnjevik, to Podgorica and from the territory of Blue, through Čakor the furnace. Both routes through Trešnjevik (1573 m) and Čakor (1849 m) are impassable in the winter months. Isolated traffic and geographical position adversely affects the economic development of cities Andrijevica and Plav.

Fig. 1: Berane, Andrijevica and Plav on the map of Montenegro.
Source: Regional Business Centre Berane 2004.

4. Natural characteristics of cities

For the development of cities of greater importance are the geo-morphological and hydrological characteristics of the terrain, the climate and geology, which limits greatly compensates for modern construction techniques.

Geomorphic characteristics of the cities we looked at in terms of morph metric evaluation of conditions for the construction of settlements and roads. The construction of the village is very small gradients (up to 1 °) are not optimal, because the removal of atmospheric and water channel requires the formation of the slope. However, given that urban settlements in the territory of Berane and Andrijevica, dominated by slopes of 1 - 3 °, unexposed surface, good structure height (height ratio as an indicator of energy efficiency infrastructure, and express transport accessibility in relation to the overcoming of differences in elevation), we have quite good conditions for the construction of settlements and roads. Berane and Andrijevica, with class II (good) benefits in relation to urban development and class I (extremely favorable) with respect to construction traffic infrastructure (Rajović 2008, 194 - 195).Eating for traffic, are typical for the winter half year. Since the mean maximum thickness of snow cover along the route of the main roads in the valley of Lima does not exceed 50 cm in January when the largest amount of snow and the number of days with snowfall lasting from October to May (when the snow melts in contact with the ground) urban settlements Berane and Andrijevica and their environment, have good conditions for traffic. Plav from the viewpoint of urban building belongs to the class III suitable terrain (due to non-exposure and vertical belt (948 m) and class II from the perspective of the construction of transport infrastructure (due to the vertical belt). Blue Area may be difficult to characterize the performance of road transport the mean maximum thickness of snow cover along the route of the main roads can reach 131 cm. The thickness of snow cover can be very difficult obstacle to traffic, especially on windy passes and hamlets, where the wind forms a high snowdrifts snow that existing machinery can break a long time (Rajović 2010, 25-27).

Thanks to the geological structure in Berane basin there are considerable reserves of brown coal and lignite (total reserves are 176,231,197 tons). Plan for development of coal in Berane basin, would cause intense regrouping and integration of industrial companies and caused the need for capacity expansion (Beran Selo, Dolac). If we add all that in a series of Miocene coal in Berane basin there are also immense reserves of marl, which for its quality meets the requirements of the cement industry, and that only the Jasikovac reserves could provide the production for two hundred years, if the 80,000 tons produced annually (Boričić and Lutovac and Petrić 1967, 69). In the vicinity of Berane and Andrijevica, there are ores of metals: lead, zinc, copper, iron and pyrite. Of non-metallic mineral deposits occur building materials: gravel, sand and decorative rock. Numerous deposits of gravel and sand are placed in the bed of the river Lim (Plav, Andrijevica, and Berane). Only in Bandović Bridge, the amount of gravel and sand, available for the annual extraction is estimated at around 100 to 120,000 m^3. On the hill Žoljevica, not far from the urban settlement Andrijevica, is bearing architectural - building stone. On the hill Žoljevica, not far from the urban settlement Andrijevica, is bearing architectural - building stone. The estimated reserves of gray marble B + C1 categories, amounts 2,223,000 m^3, a reserve of white and gray-white marble belonging to the C1 category is 60,000 m^3 (www.andrijevica.me).

Berane, Plav and Andrijevica as a whole, compared to the corresponding climatic characteristics, a suitable area for settlement and life of residents. From the standpoint of the optimal settling basin in which courts are located just urban settlements Berane, Andrijevica and Plav comfortable climatic conditions which cover the period from mid-May to late September, and the heating season lasts approximately from October to late April. Those high temperatures, during the summer at the bottom of the valley often show us the following information. Namely in Berane and Andrijevica, during July and August about 44, days with temperatures over 25° C and Plav about 37 days. It is not uncommon for these temperatures last for several days in a row, and even the whole week or more (Rajović 2005, 85 - 86). In countries with high living standards, humidity indirectly affects the climate of increased costs for housing and work space. In our conditions, in most cases, it's just more stress resulting thermo-regulatory mechanism of the organism (Bursać 1975). In relation to air pollution for the spatial differentiation of climatic conditions are very important characteristics of the wind. Industrial zones in Berane, Andrijevica and Plav have a very unfavorable position relative to the wind rose. Both weather stations in Berane and Plav, the dominant winds from the N and S quadrants, and industrial zones in these places are located precisely in this direction. The influence of climate on different forms of construction is expressed through shortening the period in which they can perform construction work. Climatic parameter that most closely expresses a possible period of construction works (construction season) is the period with daily mean temperatures above 0° C. According to the Rajović (2005, 87 - 88) can be concluded that the lower basin relief, he takes about 260 days to 265 days blue in Berane and Andrijevica. With a height of construction season is shortened considerably. But it should be noted that certain works for this particular construction season is shorter. It is thought to work with concrete, whose period coincides roughly with the length of the frost-free period and lasts from 124 days in the Plav, to 141 days in Berane and Andrijevica. Manifest a similar impact on the climate conditions of individual industries. Thoughts on surface mines and works on any open mining of non-metals.

Lim its tributaries is a rich reserve of surface water, the development of Berane, Andrijevica and Blue. In fact, Lim has exceptional hydroelectric potential (230 GWh /g). However, Lim has a staggering annual discharge, which ranges from 17.8 m³ / s in Plav and 37.4 m³ / s near Berane, which prevents Berane, Andrijevica and Plav complex industrial development. Namely, in the period January-June river flows 65 - 70% elapse total annual discharge. During the summer months (July, August, September) is during the lapse of the river 9-12 % annual discharge. To the minimum flow values during the coming summer months due to reduced rainfall, increased evaporation and water intakes for various purposes. It is height-Berane position of urban settlements, Andrijevica and Plav, in terms of utilization of waterworks emphasizes the importance of groundwater. In other words, the use of groundwater for water supply of cities is crucial. "Water-supply Berane urban settlement is done from the main city water supply Lubnice - Berane, which is supplied with water from the trap," Merića hot ". The latest assessment of Public Enterprise "Water Works"-Berane indicate that the flow of water through the main pipeline from the spring to breaking chamber about 190 l/s. Distribution network (primary and secondary) is 160 km and covers about 70% of the territory of the Municipality, and uses about 65% of Berane"(www.nasme.me). At the end of the eighties, "Water-economic organization for the development and utilization of waters of Montenegro" - Podgorica did a "water main project for Andrijevica", taking into account the then current state and future developments in the immediate

environment Andrijevica. Thus was built the water supply sources "Krkori" Kuti village in the area which is located nearly 15 km from the village on the left side of the river Kutski. Projected water system consists of: pumping building buildings at the source "Krkori" water pipeline constructed of cast-iron pipe 300 mm. Terms of Reference for the preparation of the project of reconstruction of water supply is planned to be cast of iron-pipe is not replaced, and the only replacement of asbestos cement pipes, the use of which by European standards is no longer allowed. This amendment is made by the main project which brought the current water supply , which in addition to urban settlements Andrijevica, and rural water supplies: Đulić, Bojovic, Seoca, Božiće, Prisoja, Slatina, Zabrđe and Trešnjevo (www.andrijevica.me). Plav supplied with water from springs and aquifers "Đuričke River alluvium". The Plav feels chronic water shortages in the summer. Water pipes in the local network at the Plav are old and made of asbestos (the main lines - the profile of 200 mm and 110 mm) and plastic - the other conductors. This circumstance causes huge losses in the network which is estimated at more than half the amount of water delivered in the pipeline. Length of water is about 5.2 km, profiles 300 and 280 mm, the primary distribution line in the Plav is about 5 km and the length of the secondary network is about 10 km (www.nasme.me). High water levels result in Lima, in addition to flooding, and increase groundwater. Floods are the most vulnerable areas of the alluvial plain in the immediate valley of Lima, with the exception of the sector in the relief flow constrictions. Berane is one of the first municipalities in northern Montenegro, which has acceded to solve flooding problems in the urban area of Lima and to the construction of gabion protection. During are the construction of fortifications on the coast-and river Budimska and Bistrica.

5. Socio - economic factors

The percentage increase in population of Berane, 1948 amounted to 26.81% in 2003. However, the municipalities of Plav and Andrijevica, show significant deviations from these population dynamics of the municipality of Berane. Thus the percentage decrease in population during the period 1948-2003 in the municipality amounted Andrijevica - 42.48% and -12.43% Plav municipalities. Based on are the tendency manifested in the movement of the total population, can be singled out in the region: the zone of concentration of depopulation and population areas. The depopulation of areas which include 85 out of 113 villages, or 72.81% (1082 km²), the total area of the region (1.1486 km²), according to Census 2003 population lived in 9578 (17.52 % of total population). Therefore, depopulation is evident in the demographic sphere in the rapid aging of the agricultural population, reducing the agricultural population and its lack of natural renewal, changes in manning and population density ...."(Spasovska and Ilić 1989, 69). In the zones of concentration according to the census in 2003, lived 45,080 inhabitants (82.47% of total population). From which it follows that the zone of stable demographic development of urban settlements included with the surroundings, which lie close to important roads, particularly road, and those extensions in the valley in which the overall living conditions were more favorable " (Bakić et al 1991, 262).

The general population density is one of the basic demographic characteristics, which indicate the spatial distribution of population. The territory she observed ranged from 17.8 per km2 in the municipality Andrijevica, 28.4 per km2 in the municipality of Plav to 51.9 per km2 in the municipality of Berane, or 36.8 per km2 in the region. In areas of depopulation population density in 2003 was 8.85 per

km2. Formed from such a density, we can conclude that this distribution of the population had its causes in the economic underdevelopment of the region, but they were adverse effects on natural movement and structure of the population that will show the following analysis. Namely, the total population of Berane, Andrijevica and Plav, depended on the balance of natural and migratory movements. In population issues, in addition to the rural exodus and population concentration in urban areas, came to the fore the negative natural increase. The birth rate in 2003 shows that for every 1,000 residents born 11.1 Andrijevica children in the municipality, the municipality of Berane 12.5 and 12.9 in the Municipality of Plav. So in terms of territorial distribution birth, we can draw the following conclusions:

1. The birth rate would be more likely, that there is a higher standard of living, better conditions of employment, housing, education, childcare and
2. Rural settlements to Berane, Andrijevica and Plav are no longer inexhaustible source of labor force and population.

Despite the declining birth rate, mortality rate shows that for every 1,000 people in 2003 died in Berane 3.21, in the municipality Andrijevica 15.7, and the municipality of Plav 8.69 people. The biggest change in the relationship between fertility and mortality, and thus change the rate of natural increase had Andrijevica municipalities. This municipality in 2003 had a negative natural growth -4.6 ‰. In the municipality of Plav birth rate that year was 4.21 ‰, and Berane 9.29 ‰. In the future we should expect stagnation in the rate of natural increase, due to emigration and adaptation of the current population in the region, a new way of life and plan members in the family.

Population growth is the result of the relationship of natural movement and migration processes. If the region does not make any migration of the population, then the growth rate and natural increase were the same, that there would be a territorial population balance. "However, this condition actually does not exist anywhere" (Ilić 1973, 118). There is no region in the north-eastern Montenegro. Therefore, the municipality of Berane, Andrijevica and Plav have a very complex demographic components related to population growth. Also to note that these components between the territorially distribute unevenly is causing demographic imbalances unstable economic conditions. These facts, and uneven economic development, compared to other regions of Montenegro, causing significant migration movements. These processes are 70 of the last century were intense. "Therefore there are amounts in the general public, often taken as an important proof of the vitality of our socio-economic system. However in our opinion, the right score can be obtained, if the process is put in an objective framework, or, if you locate a time, geographical and socio-economic"(Ilić 1973, 119). How long and to what extent the rate of population growth in the region should fall very hard to say because we do not have the necessary indicators of economic development in the future. But if the population growth rate is still declining, the municipality of Berane, Andrijevica and Plav in the coming time can get into a lot of difficult economic situation, due to demographic aging and population decrease in working contingent.

Tab. 1: Basic demographic factors of development of Berane, Andrijevica and Plav (in %) 2003.

Characteristics	Municipality of Berane	Municipality of Andrijevica	Municipality of Plav	North-Eastern Region of Montenegro
Index of population growth in 2003/48	26,81	- 42,48	-12,43	2,20
Number of inhabitants per km²	51,9	17,8	28,4	36,8
Number of births per 1000 population	12,5	11,1	12,9	12,4
Number of deaths per 1000 inhabitants	3,21	15,7	8,69	9,8
Participation of the population of 0-19 years in total	30,21	26,48	34,88	31,00
Participation of the population of 20-39 years in total	28,97	26,34	25,90	27,92
Participation of the population of 40-59 years in total	22,80	23,41	21,73	22,60
Participation of the population 60 and older in total	17,95	23,77	17,74	18,41
Ageing index	0,59	0,89	0,50	0,59
Participation of women in the total	49,97	56,93	50,35	49,98
Participation in the total male population	50,03	43,07	49,65	50,02
The rate of femininity	998,7	967,0	1014,1	992,2
The rate of masculinity	1001,2	1034,1	986,0	1000,8
Participation of the people without any qualifications in the total 15 + years	3,92	6,69	8,36	5,31
Participation of the population with incomplete primary education in the total aged 15 and over	11,61	13,12	18,43	13,44
Participation of population with completed primary education in the total aged 15 and over	28,69	29,21	29,86	29,03
Participation of population with completed secondary education in the total aged 15 and over	44,15	41,47	32,80	41,09
Participation of population with completed higher (education, which lasts two years) education in the total aged 15 and over	4,16	4,06	2,98	3,86
Participation of population with completed higher education in the total aged 15 and over	5,53	3,10	4,82	5,09

Source: Statistical Office of Montenegro, Census population 2003, calculations by author.

Age groups, due to migration and decreasing birth rate changes and gets unfavorable features - reducing the proportion of younger and older increases the proportion of the population. In both cases, the disturbed age structure has a reverse effect on the movement of the population (the size of reproductive contingent), but also to all other structures of the population (the size of contingent

employment, population, compulsory school contingent, contingent dependent population ratio), that is of major importance for the development of population and economic activity municipality of Berane, Andrijevica and Plav (Rajović and Bulatović 2012, 12).

The age population can be divided into young (0-19 years), young middle-(20-39 years), middle-elderly (40-59 years) and old (60 and over). In this region of Montenegro, there is a small proportion of young people (31.00%), and ranges from 26.48% in the municipality Andrijevica, 30.21% in Berane and 34.88% in the Municipality of Plav. Participation generation 20-39 years at the regional level is 27.92% and ranges from 25.90% in the Municipality of Plav, 26.34% in the municipality Andrijevica to 28.97% in Berane. The share of older generations, which are groups of 40-59 years, ranged from 21.73% in the Municipality of Plav, 22.80% in Berane and 23.41% in the municipality Andrijevica, or 22.60% at the regional level. In a group of 60 or older population at the regional level is 18.46% and 17.51% of the Municipality of Plav, 17.96% in the municipality of Berane, up 23.77% in the municipality Andrijevica.

Young people are considered in which the age group of 0-19 years accounting for more than 35%, and the old one in which groups of 60 or more years makes over 12% of the population. According to this classification, the population of Berane, Andrijevica and Plav notes are aging.

If we consider that the population is between 0-14 young, 15-65 years mature and over 65 years old, then in 2003 in the municipality Andrijevica young population coming to 18.93%, Municipality of 22.10%, municipality Plav and 25.27% to 55.44% in mature municipality Andrijevica, 56.81% in Berane and 51.81% in the Municipality of Plav and 17.53% of the old municipality Andrijevica, 19.38% in the municipality Berane and 20.24% in the Municipality of Plav. Ageing, it is the proportion of people aged over 60 years in the total population of the region is 18.46%. A high proportion of the population over 60 years in the total population in 2003 and had the individual municipalities: Berane 17.95%, 23.77% and Andrijevica municipality Plav 17.74%.

The aging index indicates the proportion of population aged 60 and older, according to the population under 20 years. If its value is less than 0.40 the population is still young, and if it is greater than 0.40 the population is showing signs of aging. Index of population aging in the region in 2003 amounted to 0.59 (0.59 Berane municipality, the municipality Andrijevica 0.89, Municipality Plav 0.50). Thus, the population of the region is in the process of demographic aging, which manifests itself increase the share of the old and the older adult at the expense of the young. The above characteristics of the population are heavily influenced by migration flows. Because the rural areas emigration, emigration and fertility contingent work tapering younger age groups, reduces the birth rate, and in this connection and slows down the flow of new generation to work contingent.

The gender structure is part of the male and female population in total population. At the regional level, there is a phenomenon that more male (50.02%), but the female population (49.98). These average values will be different, especially if seen by municipalities. In the municipality of Andrijevica much greater differences between female (56.93%) and male population (43.07%) or greater imbalance between them in contrast to the municipalities of Plav and Berane. Namely

municipality Berane (female 50.03%, 49.97% male) are according to 49.98% and 50.02% female male population in the municipality of Plav. Masculinity rate shows the number of men per 1,000 women. According to the Census 2003 rate of masculinity in the region amounted to 1000.8%. In the municipality of Berane is 1001.2%, in the municipality Andrijevica 1034.1%, in the municipality of Plav 986.0%. Femininity rate shows the number of women per 1000 men. It ranged from 967.0 in the municipality Andrijevica, 998.7 in Berane and Plav municipality 1014.1 and 999.2 in the region. As you can see, the higher rate of femininity is the municipality of Plav, but the municipality of Berane and Andrijevica. This may be due to male emigration or immigration of the female population. Whereas, the more narrow framework of economic development, employment of female labor force is going much slower than men, because of the structure of economic activity, which requires more male labor force. Taking for example, in the region, there are favorable conditions for development of textile industry and handicrafts, which would be most engaged female workforce, this production can significantly affect the increased employment of women. The involvement of female labor force in the economy, it would make more additional character that would provide existential security of women in society and family.

Educational level is an important indicator of the educational structure of the population. However, in the considered region, education of the population is not satisfactory. Given that the share of population without any qualifications at the regional level is 5.31% with incomplete primary education was 13.44% with a degree in elementary education is 29.03% of the population in relation to the total aged 15 and over. According to data for 2003 in the municipality of Berane - No school was 3.92%, incomplete primary education had 11.61%, 28.69% primary education, secondary education and 41.15%, higher education 4.16 % and higher education 5.53% of total population aged 15 and over. In the municipality of Andrijevica - No school was 6.69%, incomplete primary education had j 13.12% 29.21% primary education, secondary 41.47% 190 4.06% over the high 3.10% of total population aged 15 and over. Data for the Plav municipality are as follows: No school is 8.36% with incomplete primary education 18.43% from 29.86% primary education, secondary education, 32.80%, 2.98% higher and higher 4.82% of the total population aged 15 and over. This educational structure of the population is adverse to any modernization of the economy in the region. Her eases and overcome the prerequisite for the rehabilitation and sustainable development. Based on these data, it can not be judged interest of the weak population of the municipality of Berane, Andrijevica and Plav, to be educated or to educate their children. The cause of the relatively small number of people with higher education, is definitely the weak material resources, but the fact that many after completing secondary education leaving the region due to the inability to be employed in it.

Economic - geographic factors point to the development of social and economic life of the region. Examined in several ways - through agricultural and non agricultural proportions, the active and dependent, active population by sectors. Agricultural and non-agricultural population in proportion to each other indicates the degree of reclamation. The share of agriculture in the total population in the region amounts to 9.10% and 90.90% of non-agricultural. Non-agricultural population of the municipality of Berane accounted for 93.12% of Andrijevica with 91.62% and 84.95% of Plav in relation to the total. Most of the agricultural population in total had just 15.05% of Plav municipality. Berane and Andrijevica had a smaller share of agricultural population, which ranged from 8.38% in the municipality Andrijevica to

6.88% in Berane. "The population is increasingly leading to the non-agricultural occupations, a traditional agricultural area has been changing, especially along the main traffic routes"(Grčić 1994, 37).

Tab. 2: Basic economic and geographical factors of development of Berane, Andrijevica and Plav (in %) 2003.

Characteristics	Municipality of Berane	Municipality of Andrijevica	Municipality of Plav	North-Eastern Region of Montenegro
Participation of agricultural population in total	6,88	8,38	15,05	9,10
Participation of non-agricultural population in total	93,12	91,62	84,95	90,90
Participation of active population in total	38,35	40,10	33,04	37,19
Participation of population that is served in an overall	44,46	40,88	52,51	46,11
Participation of the population with personal income in the total	16,89	18,65	13,66	16,26
Participation of female labor in the total contingent	29,97	26,07	28,16	28,65
Contingent of male participation in total employment	32,90	33,86	30,76	32,46
Utilization of female labor contingent	25,63	25,66	16,65	23,40
Utilization of the male contingent work	42,73	45,84	38,72	42,11
Participation of working population are employed in agriculture	10,39	13,30	26,67	14,08
Participation of the active population works in the industry and mining	23,69	18,52	15,15	18,36
Participation of the active population works in the construction industry	3,06	2,26	1,13	2,51
Participation of the active population works in the traffic	6,79	6,23	3,10	5,96
Participation of working population are employed in trade and catering	15,24	14,09	11,26	14,29
Participation of the active population works in the craft	4,27	2,88	3,80	4,01
Participation of the active population works in the social activities	33,56	31,60	31,25	32,86
Participation of the active population works in the outside activities and the unknown	6,98	5,84	7,20	6,90
National income per capita	170	290	148	-
GDP per capita	231	254	200	-
Participation of unemployed per 1000 inhabitants	121	77	81	106

Source: Statistical Office of Montenegro, Census population 2003, calculations by author.

Consider some indicators of economic activity of the population - the degree of utilization of contingent work, the overall activity rate and the coefficient of economic dependence. They give a realistic picture of actual economic activity of the population.

1. The degree of utilization of contingent work shows that the relationship of demographic potential and working-age population. It is calculated as Rk = (R: Pr) * 100, where Ra - active male (15 - 64 years) and female (15 - 59 years) population, Pr - male and female total population of the same age (working contingent). This indicator for the region is 42.11% male, 23.40% female, and the municipality of Berane 42.73% 25.63% male and female, and the municipality Andrijevica 45.84% of male, female and 25.66% for municipality Plav 38.72% 16.65% male and female.
2. The general activity rate indicates the number of active per 100 inhabitants. Calculated as Ra = (Ra: R) * 100, where Ra - total active population, R - total population of the region. For the region is 37.12%. The general rate of activity of the male population (the total male) was 42.11% and female (in the overall female) 23.40%.
3. Economic dependency ratio indicates the proportion of dependents and persons with personal income, according to the active population. It is made according to the formula Fc = (Pi + P1): Ra, where Pi - dependent population, P1 - active population. Per 100 active populations in the region in 2003 there were 167.7 dependents and persons with personal income.

The share of dependent population in the region is 46.11%. Number of dependents per 100 active populations is 124. This number is in the municipality of Berane was 116, in the municipality Andrijevica 102, 159 and Plav. This much is the share of dependent population that is a consequence of aging. Declining are share of young population and an increase in persons with personal income. The share of persons with personal income ranges from 13.66% in the Municipality of Plav, 16.89% in the municipality of Berane, up 18.65% in the municipality Andrijevica, or at the regional level is 16.26%.

Population structure by sectors is a reflection primarily of industrial development. In fact, agriculture in 2003 was absorbed 14.08% of the active population at the regional level, or 10.39% of the active population in the municipality of Berane, 13.30% at the level of Andrijevica and 26.67% in the municipality of Plav. Secondary sector activities viewed individually is quite uneven. Of all the secondary activities of the most intensive development of the industry had. From the division of population by type of activity we see that the active population employed in industry ranged from 15.15% in the municipality of Plav, 18.52% at district level and 23.69% Andrijevica in the municipality of Berane, or 18.36% to regional level. Spaces of industrialization and urbanization of Berane, Andrijevica and Plav have a specific character. This follows from the fact that the industrial concentration of its existence is largely aligned with the hierarchy of urban settlements in the network. The largest concentration is in Berane. This is the main measure associated with transportation and market position. Our research noted little evidence of active participation of the population employed in handicrafts, at the regional level 4.01% and 2.88% of Andrijevica, the municipalities of Plav 3.80%, Berane municipality of 4.01%. In construction the number of active employees was 1.13% in the Plav municipality, the municipality of 2.26% and 3.06% Andrijevica in Berane, or 2.51% at the regional level. The overall development of socio-economic complex has a direct bearing on the level of development of tertiary activities. Thus, the share of working population in traffic ranged from 3.10% in the Plav municipality, the municipality of 6.23% and 6.79% Andrijevica in Berane, or 5.96% at the regional level. It is significantly larger share of active population employed in trade and catering, and that number ranges from 11.26% in the Municipality of Plav, 14.09%

of the municipality and Andrijevica 15.24% in the municipality of Berane, at the region 14.29%. According to given data shows a relatively high share of active population in the social services sector 32.86% at the regional level and 31.25% for the municipalities of Plav, 31.60% at the level of Andrijevica and 33.56% in the municipality of Berane, which is the result of a polycentric network of education and health in the region. Namely, the high position given the contingent teachers (teachers, professors, doctors) who perform professional duties in rural areas and this entails, and increase administrative and other non-economic activity of workers. In the group of outside activities and 6.90% unknown part of the active population at the regional level, or 5.84% at the level of Andrijevica, 6.98% in the municipality of Berane and 7.20% in the municipality of Plav.

The most reliable indicator of the economic development of the region's current level of gross domestic, product and national income per capita. National product per capita in 2001 in the Municipality of Plav amounted to 200 marks, while in the same year per capita in Montenegro amounted to 2233 DEM. National income per capita in the municipality of Plav amounted to 148 DM, while in the same year per capita in Montenegro amounted to 1698 DEM, and the municipality of Budva 3417 DEM. From which it follows that the national income per capita in the municipality of Plav 23 times smaller than that in Budva, or 11.5 times smaller than the average in Montenegro. Almost identical situation we have with the municipalities Andrijevica and Berane. In fact, national income in the municipality of Berane 2002 amounted to 170 DM, a GDP of 231 marks. Statistical Office of Montenegro in 2002 notes that the national income in the municipality amounted to 290 euros Andrijevica, a GDP of 254 euros. Percentage of unemployed per 1000 population is high and ranges from 77 in the municipality Andrijevica, 81 in the Municipality of Plav to 121 unemployed in the municipality of Berane.

Without going deeper into theoretical considerations, based on economic and geographical factors of development, we can conclude that due to specific geographical conditions, there was a structural deformation and territorial disparities, which led to polarization between relatively developed municipalities of Berane and underdeveloped municipalities Andrijevica and Plav.

The current plans of demographic and economic development, are not sufficiently respected the specific geographical conditions and a constellation of factors of territorial development in the region. Development problems and irrational economic system, kept all the professional and scientific narratives, with no possibility of any immediate action implemented. The economy has been blocked and moving the logic of their powerlessness. And then a look now, we were able to rise above statement. Therefore, the conclusion that it is necessary to develop a special demographic-economic strategy for innovative regional policy, adapted to the hilly and mountainous areas (Grčić 1991, 67 - 68).

6. Development city

The evolution of the human race is accompanied by improvement of man's residence. From the first primitive habitat to skyscrapers of modern times, increasing the number, multiplied modernize the look and function of settlements. They represent the most realistic picture of how life of residents, the volume of material production and the degree of spiritual creativity. It is often based on

archaeological finds way to reconstruct the life of the population and determine the time of settlement.

Our research evidence, based on similar research Stamenković and Tošić (1996, 23-36) and Tošić (2001,15-25) pointed out the manifest to the fore the fact, that is. To the development of Berane, Andrijevica and Plav, we can distinguish three phases of development: rural and urban borough.

Rural settlement phase starts in prehistoric times and lasts until the second half of the fifteenth century. Before the settlement of Slavs, the area of Berane, Andrijevica and Plav, Balkan peoples inhabiting the old Illyrians. Numerous sites were discovered, Illyrian settlement (Beran krš, Grace, Torovik, Rudeš...)" (Lutovac 1973, 7-14).

In the second period, before the settlement of the Slavs, were considered the area under Roman rule. The remains were found in the Roman area of the village: Lužac, Dolac, Budimlja, Luge, Donja Rženica, Jasikovac, Zabrđe, and Slatina… Traces of medieval civilization are numerous: Đurđevica, Mrtvica, Kućišta, Lokve, Borova Glavica, Gusinje, Dosuđe, Kaludra, Lubnice, Goražde, Uroševica, Konjuhe, Košutiće" (Lutovac 1957, 44-55).

At the time Nemanjić studied area was called parishes Budimlja. Here is St. Sava, 1219 he founded one of the first Serbian bishoprics with episcopal throne in the monastery Pillars of St. George. A highly developed and rich spiritual life of Serbs in this area, most are numerous monasteries and churches and the remains and ruins, located in Šudikova. In Šudikova, Presentation of the Virgin church, there is one of the earliest written documents from these parts - "Sveto-trojički Collection" (Đukić 2009). At the time of Nemanjić, blue is represented the center of the parish, and was mentioned as a village of fishermen (in the charter of Emperor Dušan mentioned as Pulav). At the site of today's urban settlement Andrijevica, until the beginning of the second half of the fifteenth century (1455), was the only church "Andrijevna" fret schools and close to the fortress on the hill Grace. This fort was preceded by the development of today's urban settlement Andrijevica.

The development phase of the town began in the second half of the fifteenth century and lasted until the end of the nineteenth century. It covers the period of Ottoman rule. In the Turkish Empire in Berane and Plav become an important administrative and administrative headquarters. And are provides the status of town (the town) which is, in fact, a transitional subset of urban settlements, from daily receipts (square) to the first cities. At that time, Andrijevica began to develop as a settlement around the church "Andrijevne".

Urban settlement stage in the development of Berane, Andrijevica and Plav started the first years of 1912 and will last until our time. However, the initial momentum of development of Berane, Andrijevica and Plav was interrupted, first, the Balkan Wars (1912-1913) and the First World War (1914 - 1918) and later the Second World War (1941 - 1945). Between the two world wars and the postwar period, Berane, Andrijevica and Plav have a peaceful and sluggish growth. Although at that time was the district center of Berane, a district Andrijevica place with Plav-Gusinjski districts. The contemporary period is marked by urban abundance, in the true sense, spatial changes, as in the internal structure of urban neighborhoods and in their surroundings. The main characteristic of this period, which are begins immediately

after the Second World War in Berane and early seventies in Andrijevica and Plav and lasts to the present time, given the processes of industrialization and urbanization. In this developmental period have been established and started operating industrial enterprises as drivers of economic development. In Berane - building material (brick and tile factory, "Rudes"), rubber industry (tire rethreading plant "Guming"), wood (timber Combine "Lim"), chemical industry (factory plywood and fiberboard), Leather (Leather Factory "Polimka"), pulp and paper industry (factory sulfate pulp and paper) and coal (brown coal mine "Ivangrad"). In Andrijevica - Non-metal industries ("Marble" - Komovi), metal industry ("Termovent" - Belgrade), leather industry (driven children, fur and leather products "Polimka" - Berane), paper (Paper products) and food processing ("Soko Stark" - Belgrade). In the Plav - Wood industry (Forest-Industrial Complex "Bor"), chemical ("Termoplast" - Gusinje), textiles (yarn factory) and metal industry ("Lignoplast"). Their intense development has caused many changes in demographic, physiognomic and functional characteristics of urban neighborhoods.

One of the key indicators of these changes is an intensive population growth in the three urban settlements in the period after World War II. The percentage increase in population during the period 1948-2003 in the town of Berane settlement amounted to 241,8 % in urban settlement Andrijevica 33.45% and urban settlement Plav 200.2% and 201% in the region. "Therefore, the demographic development of urban settlements marks the major changes. They are reflected in the declining importance of primary and secondary strengthening, tertiary and quaternary functions of urban settlements. The main change is reflected in the fact that the function is the leading agricultural industry gave way to his place (the transfer of an agrarian to an industrial city population). At the same time, due to increased mechanical influx of population, mostly from the surrounding villages, there is a transfer of the rural active population in urban " (Stamenković 1996, 20).

Tab. 3: The population of urban settlements, Berane, Andrijevica and Plav in the period 1948-2003.

Urban settlements	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1948/2003 Change in %
Berane	3.701	4.513	6.969	11.164	12.720	12.267	12.651	241,8
Andrijevica	894	899	1.007	994	941	933	1.193	33,45
Plav	1.850	2.018	2.535	3.058	3.348	4.560	5.554	200,2
Region	6.445	7.430	10.511	15.216	17.009	17.760	19.398	201

Source: Statistical Office of Montenegro, Census population 2003, calculations by author.

According to Kalezić (1976, 53 - 54), the reasons of such a population growth of population in the towns of Berane, Andrijevica and Plav, are multiple, we will in our opinion, reduced to the most important ones:

1. Provided conditions for non-agricultural production which could be achieved more productive work, and therefore higher and more stable income. Whether it is working or intense economic activity, society, naturally, within the limits of its capabilities, provides the necessary means of production and other conditions that allow the employee's permanent employment of labor for which such options on individual agricultural property in rural areas in the northeastern part of Montenegro, in most cases it was not,
2. Existential security, which stems from the high degree of certainty that the inclusion of non-agricultural activities, generates income-means of

livelihood. In agricultural production, the individual held in the region, which is still subject to the influence of external factors, there is uncertainty, both in terms of achieving the yield of certain crops, and the price at which to sell their products, all of which leads to significant fluctuations in the amount earned income. Therefore, there is a fear in securing the safety of the material conditions for maintaining its own existence;

3. Engaging in employment in non-agricultural activities individual farmer, on this basis will be entitled to health care (you and your family), and the conditions for retirement, which is an important element of social security and
4. General conditions of life in the city provide far greater opportunities for education and a cultured life, full health care and other benefits that the city has, in relation to the village, which was an important motivation for migration and emigration, particularly of young people.

In a variety of demographic changes are caused by population movements, especially the settlement of the city, as well as some relevant physiognomic and functional changes, achieved by gradually changing the economic structure of urban settlements. The spatial development of urban settlement is achieved by expanding in the peripheral, and the modern construction of housing, community, business and recreational facilities and areas, mainly in urban centers and areas around it, but in other parts of the urban territory. "It was constituted a modern functional zoning, which is an adequate size of urban settlements. It comprises the town center zone, residential zone (individual, collective and mixed housing), recreational and business (industrial) zone. This was based on the rational use of urban territories, provided the unity of individual functional areas and spreading harmful effects of industrial areas to other spatial-functional parts of the village. That basically means that the internal functional areas and meets the needs of modern urban life quality " (Stamenković 1996, 21). However, in the last census periods, there is a calming process of land reclamation, especially when it comes to urban areas. This process is, after a period of intense industrialization in the sixties, primarily directed at the development of tertiary - quaternary sector, particularly in the municipality of Berane. The economic crisis in Montenegro at the beginning of the nineties due to isolation, inflation, the economic and social circling and lack of economic development strategy in the long run, stopped the social, technical and technological development of Berane, Andrijevica and Plav.

6. Conclusion

Results of the analysis of economic and geographical factors of development of Berane, Andrijevica and Plav, suggests the following conclusions:

1. Isolated traffic and geographical position adversely affects the economic and social development of Berane, Andrijevica and Plav. With the exception of the continental branch of the main road no other important roads do not intersect or touch the considered geospace.
2. Natural characteristics of cities suggests - to have a Barane and Andrijevica class II (good) benefits in relation to urban development and class I (extremely favorable) with respect to the construction of transport infrastructure. Thanks to the geological structure in the considered area there are considerable reserves of brown coal and lignite, mining of metals and nonmetals, which are still waiting on the possibility of exploitation. From

the standpoint of climate, urban settlements Berane, Andrijevica and Plav have favorable conditions for settlement and life of residents. Lim its tributaries is a rich reserve of surface water but with fluctuating annual discharge, which ranges from 17.8 m³ / s in blue and 37.4 m³/s near Berane, which prevents Berane, Andrijevica and Plav complex industrial development.

3. Berane population increased in the period 1948-2003 to 26.81%. However, the municipalities of Andrijevica and Plav, show significant deviations from these population dynamics. Thus the percentage decrease in population over the same period accounted for in the municipality Andrijevica - 42.48% and -12.43% Plav municipalities.
4. Age groups, due to migration and decreasing birth rate changes and gets unfavorable features - reducing the proportion of younger and older increases the proportion of the population. In both cases, the disturbed age structure has a reverse effect on the movement of the population (the size of reproductive contingent), but also to all other structures of the population (the size of contingent employment, population, compulsory school contingent, contingent dependent population ratio).
5. The process of land reclamation has increased due to the transfer of agricultural labor force in non-agricultural activities. As a consequence we have that in 2003 agriculture absorbed 14.08% of the active population at the regional level. Secondary sector activities, viewed individually, are quite uneven. Of all the secondary activities of the most intensive development of the industry had. From the division of population by type of activity shows that the active population employed in industry amounted to 18.36%. The overall development of socio-economic complexes directly reflects the level of development of tertiary activities. The largest proportion had an active population employed in trade and catering 14.29%. It is apparent rather high share of active population in the social services sector 32.86% at the regional level. In the group of outside activities and 6.90% unknown part of the active population at the regional level.
6. The contemporary period is marked by urban abundance, in the true sense, spatial changes, as in the internal structure of urban neighborhoods and in their feature environment. Primary this period, which begins immediately after the Second World War in Berane and early seventies in Andrijevica and Plav and lasts to the present time, given the processes of industrialization and urbanization. In a variety of demographic changes caused by migrations, especially immigration the city, as well as some relevant physiognomic and functional changes, achieved by gradually changing the economic structure of urban settlements.

Finally, the economic and geographical factors of development of Berane, Andrijevica and Plav should be viewed realistically, without undue optimism, pessimism and even less. The process of general and qualitative transformation of the region will be relatively very slow and time consuming. So you should work on it patiently, but persistently and continuously.

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SOCIO – ECONOMIC AND GEOGRAPHICAL FACTORS OF DEVELOPMENT - STUDY CASE: CITIES BERANA, ANDRIJEVICE AND PLAVA

Summary

Generally the natural conditions, social development and economic situation in the territory of Berane, Andrijevica and Plav lot has been written and much is known. It is assumed that the matter has been sufficiently discussed, researched and published in the literature. In this work we tried to point out only part of the truth of important issues related to socio-economic development of Berane, Andrijevica and Plav. Therefore, we indicated in the text of the socio - economic and geographical factors of development of northeastern Montenegro, that is, we tried to identify the key factors that affect the socio-economic development. But when a more thorough economic and geographic analysis is an insufficient discussed topics. Specifically the region with the participation of 106 inhabitants in 1000 unemployment reached a high level of unemployment, which along with low domestic product and national income per capita is formed unfavorable conditions of life for its residents. Stop the negative socio-economic processes there is a key factor in development and strategic goal and the overall economic recovery and future social development Berane, Andrijevica and Plav.

NATURE PROTECTION IN BOSNIA AND HERZEGOVINA: STATE AND PERSPECTIVES

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Abstract
Nature protection in Bosnia and Herzegovina: state and perspectives
Bosnia and Herzegovina is distinguished by a very unique mosaic of high biodiversity level. However, current development activities and initiatives for construction of new dams, together with activities in the forestry sector throughout the country, emphasizes the need for establishment of new protected areas in all major ecosystem types that should be ecologically viable and effectively managed. A review of the history of protected areas and administration developments in Bosnia and Herzegovina provide useful input for analysis. However, the data on the current state and size of protected areas in the country are obsolete and inaccurate. The results of the analysis have shown that in spite of a very high biodiversity level, Bosnia and Herzegovina managed to designate only 2.6% of its territory as protected areas, which is far below regional and European level. Lack of protected areas system is one of the main direct threats to biodiversity conservation. The primary objective of establishment of protected area network (PAN) in Bosnia and Herzegovina is to ensure conservation of valuable natural areas, which contain representatives of all main ecosystem types that could be found in the country. Only in this way, sustainable conservation of biodiversity could be achieved.

Key words
Protected areas, biodiversity management, Bosnia and Herzegovina

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1. Introduction

Bosnia and Herzegovina is located in the Southeastern Europe, on the Balkan peninsula with land area of 51 129 km^2 and 24 km of coastline. All watersheds and major biogeographical regions are transboundary. The country is distinguished by the presence of highly diverse ecosystems, distributed from sea level in eumediterranean belt to the highest mountain peaks in alpine belt (the highest peak in Bosnia is Mt. Maglić, 2386 m).

Several climate types – typical Mediterranean and submediterranean, mid-continental, continental, as well as specific varieties of mountain climate type could be found in this relatively small area (Drešković 2004). There are also a very diverse bedrock types. A dominant role play carbonate rocks – limestone and dolomite and dolomitized limestone. In the central, the northern and the northeastern parts of the country, silicate rocks from various geological ages could be found (Čičić and Pamić 1977; 1979). Soils are various stages in development of carbonate and silicate soils with domination of cambric and illymerized soils. In the southern part of the country, dominant roles play dark, fertile soils and rendzines (Resulović and Čustović 2002). Heterogeneous abiotic factors contributed to the development of a unique mosaic of rich biodiversity. Bosnia and Herzegovina is one of the European hot-spot countries with a very high level of species and ecosystem diversity and high endemism rate.

There are three main biogeographycal regions in Bosnia and Herzegovina: Mediterranean, Continental, and Alpine region (World Wildlife Fund 2000). Richness of the flora has enabled development of a very rich and diverse ecosystems (Lakušić 1981; 1984). Considering geographical, geological, climatic and historical circumstances, it could be possible to distinguish three main phytogeographical regions in the country: (1) Mediterranean, (2) Euro-Siberian-Boreo-American with Illyrian and Moesian province. The highest mountain peaks belong to the (3) Alpine-high Nordic region with high Dinaric province (Lakušić 1981). The results of the analysis of land cover have shown that 44% of the territory is covered with natural forests (CORINE Land Cover 2006 Project in Bosnia and Herzegovina). Herzegovina and the Western Bosnia with large karst areas are distinguished by the presence of vegetation typical for submediterranean region. Current distribution of vegetation formation is not only result of prevailing natural conditions, but it is also influenced by various factors in distance past of vegetation development. An important role in this process have played deep river valeys and canyons, which acted as corridors for dispersal of certain floral elements from the north to the south, from the east to the west, and vice versa. They have also served as refugia for members of old vegetation that had been endagered due to the climate changes and invasions of new species.

Bosnia and Herzegovina has a very rich flora, with some 5200 taxa of vascular plants (Šoljan, Muratović, Abadžić 2009). Considering the number of species and its relatively small country size, the species density and diversity in Bosnia is among the highest in Europe. It is estimated that there are about 500 endemic plant species (Šilić 1984). A full inventory of vascular flora in Bosnia has yet to be conducted. It is possible that additional species would be identified through such an inventory. A listing of plants thought to occur in Bosnia that are included on the Red List was conducted in 1990 using only literature and herbarium sources. This provisionally Red List for Bosnia was finally published in 1995. Some 678 species or

13.5% of total flora thought to occur in Bosnia are on the list. It includes 3 extinct species, 43 at the verge of extinction, 286 vulnerable species, and 289 that are rare or potentially under the threat, and 52 species of concern whose status has not been defined (Šilić 1995). The very high percentage of total species in Bosnia considered under threat give rise to the need for urgent conservation and protection of species and their communities in the country.

Similar to the vascular plants, the number of endemic animal species is also a very high (Lelo 2009). It includes, among others, 18 amphibian, 29 reptile, 330 bird, and 99 mammal taxa. Since Bosnia is a mainly mountainous country, much of its fauna is adapted to mountain habitats. In the central and the southern parts of Bosnia and the northern and northeastern Herzegovina area, dense stands of coniferous and broadleaved forests, meadows, pastures and mountain turfs are habitat for a numerous animals. Chamois and brown bear, as well as an endemic race of marten also live here. Important and rare bird species include grouse, vulture, and ural owl. Alpine salamander and viper are two additional important species. Although they could be found in the neighboring countries, in Bosnia they are represented with very small populations critical for their survival. Changes in general physical geographical conditions, and particularly appereance and destruction of natural isolation barriers in geological history have very strong impacts on the development and composition of living world in waterways and lakes. Ichtyofauna of Bosnia and Herzegovina with 11 species of cartilaginous and 194 species of bony fish represents a unique European biological resource considering both total richness and presence of numerous interesting endemic forms (Hamzić and Lelo 2009).

2. The history of establishment of protected areas in Bosnia and Herzegovina

A review of the history of protected areas designation and insight into existing legislation in Bosnia and Herzegovina provide useful input in the research. Nature protection in Bosnia and Herzegovina, as in other countries in the region, has started in the second half of 19th century with protection of certain wild game species. The first officially protected area in Bosnia and Herzegovina was established in June 1954, in the southeastern part of the country in the watershed of Perućica creek, where pristine forest was developed. Just two months later, in August 1954, National insitute for protection of cultural monuments and natural rarites of People Republic of Bosnia and Herzegovina on the basis of the Law on protection of cultural monuments and natural rarities from 1947, protected Prokoško lake on Mt. Vranica in the Central Bosnia as natural rarity. In 1965, the first National park Sutjeska was established, and Perućica became core area of the park (Fukarek 1970).

Spatial plan of Bosnia and Herzegovina for period 1981-2000 predicted protection of 8062 km^2 or 15.03 % of the state through an integral approach (Table 1). Up to 1990, according to the Law on Protection of Nature and Law on Protection of Cultural, Historical and Natural Heritage, only 0.55% of the territory of Bosnia and Herzegovina was protected (253 areas – 28 127 ha), as follows: 5 Strict Reservations, 3 Managing Reservations, 2 National Parks, 29 Special Reservations, 16 Natural sights, 195 various natural monuments, and 7 species of plants and 259 species of animals (257 bird species) (NEAP BiH Directorate 2003).

Tab. 1: Natural heritage and protected parts of nature in Bosnia and Herzegovina – projection for protection by 2000 (Source: Draft of Spatial plan of Bosnia and Herzegovina for the period 1981 – 2000).

	Type of protected area	Total	
		km^2	%
1.	Nacional park (7)	1730	3,38
2.	Regional park (32)	4532	8,86
3.	Special landscape (50)	1243	2,41
4.	Memorial park (22)	107	0,21
5.	Reservats an monuments of nature	10	0,02
6.	Water (1 - 4)	440	0,15
	Sum	8062	15,03

The categories specified in the table 1 do not correspond to IUCN categories of protected areas. The protected area designations were defined in the 1970 law, and they are outdated. Also, the status of individual species should be discussed within IUCN criteria for the Red Lists of Threatened Plants, Animals and Fungi, instead within the protected parts of nature.

2.1 Protected areas development

After the war (1992-1995), fragmentation and disturbance of habitats, together with overexploitation of natural resources, and introduction of alien species have resulted in dramatically increased environmental degradation. This has urged the need for the establishment of new and reevalutaion of existing protected areas in the whole country. The first newly protected areas, based on IUCN criteria, have been designated in Sarajevo Canton. Responsible governmental bodies and cantonal parliament have declared three protected areas: Nature monuments Vrelo Bosne and Skakavac, and Protected landscape Bijambare. Also, all activities in preparation of necessary legislation for designation of Bentbaša (canyon of the river Miljacka upstream from Sarajevo to interentity boundary line) as protected landscape have been completed by the end of 2008 (Drešković and Đug 2008). Several new protected areas have been designated in other cantons in the entity of Federation of Bosnia and Herzegovina, as well. In Herzegovina-Neretva Canton Nature monument Blidinje lake was designated in 1995. In the Central Bosnia Canton the nature monument Prokoško lake was established in 2005 (Đug and Drešković 2005). In Zenica-Doboj Canton – Nature monument Tajan (2008) and in Tuzla Canton Protected landscape Konjuh in 2009 have been designated. In 2008, National park Una was established as the first national park in Federation of Bosnia and Herzegovina (Dalmatin, Drešković, Đug 2008). All these protected areas have baseline studies and management plans.

There are 21 protected areas in entity of Republic of Srpska covering 24 632 ha (Ljubojević and Marčeta, 2007). Here are located two national parks Kozara (3 494.5 ha), and Sutjeska (17 250 ha) and two pristine forests reserves Janj (195 ha) and Lom (297.75 ha). The current state of other enlisted protected areas is still problematic, since they are under significant human impacts.

Physical plan of entity Republic of Srpska in its first stage (1996-2015) set a very ambitious goals to set 15 to 20% of its territory, including among others, new 11

national parks and 11 nature parks (Kadić and Marković 2006). In spite these intentions, even existing protected areas are under the treat. For example, forest reserve Bukov Do (100 ha) is almost completely destroyed today due to various human impacts, while forest reserve Omar (97 ha) is under the threat. Also, 12 reserves of Pančić spruce (Picea omorica (Panč.) Willk.) covering 320 ha are endangered due to the mismanagement and lack of proper protection. After the war, there were no new designated areas in entity Republic of Srpska (Ljubojević, Marčeta 2007). Due to its high biodiversity and importance as bird habitat, wetland Bardaca in the northern part of Bosnia and Herzegovina has been designated as wetland of international importance on the International wetland day on February 2, 2007, that is Ramsar site number 1658 (Ramsar Convention Secretariat 2007). That is the second Ramsar site in the country, since Hutovo blato in Herzegovina (IUCN category III) was declared as Ramsar site in 1972.

It is necessary to note that in Bosnia and Herzegovina exist a large number of mainly individual nature monuments which are not either in jurisdiction of entities or Cantons. They are enlisted as protected natural heritage in municipalities where they are situated. Those mainly physical geographical natural features, such as waterfalls, small canyons, etc., with high values cover small areas and therefore they cannot be protected as separate protected areas according to IUCN criteria. Official data on the state of protected areas in Bosnia and Herzegovina are in the most cases obsolete and inaccurate. For example, official data for Bosnia and Herzegovina presented in the Common Database on Designated Areas (CDDA) are not reliable (EEA, 2006) and they do no reflect current situation in the field of nature protection. One of the most recent official documents, Draft of the Strategy of Environmental Protection of the Federation of Bosnia and Herzegovina for the period 2008-2018 states that only 0.53% of the state teritorry has been designated as protected areas (Federal Ministry for the Environment and Tourism, 2008), while the most recent document in this field, The Fourth Report to the United Nations Convention on Biological Diversity 2010 Biodiversity Targets National Assessments states that 0.63% of the state territory was protected by the end of 2005, which increased to 1.8% by the end of 2009. However, the results of original investigations and analysis of other available data have shown that, in spite all efforts, Bosnia and Herzegovina managed to designate only 2.6% of its territory as protected which is far below regional and European level. The results of our analysis have shown that in Federation of Bosnia and Herzegovina 109 808.8 ha is currently protected, and in Republic of Srpska 24 632 ha (Ljubojević, Marčeta 2007), or in the whole country 134 440.8 ha.

Unfortunatelly, there is no defined unique strategy for protected area designation at the state level. The existing concept of the nature conservation based upon formal protection of species and establishing of protected areas together with absence of reliable environmental information and monitoring systems needed to generate inputs for sound environmental management showed to be insufficient. Due to the very complex administrative and political organisation of the state it is not possible at the state level to implement planned conception guidelines. Outcome of this situation is that a very ambitios strategy to protected 15% of the state territory was not implemented at all.

2.2 Policy and management in nature protection

In accordance with Dayton Peace Aggrement, all environmental legislation was retained from former SR BiH, until adoption of new laws. New set of environmental

laws went into effect in 2003. The intention was to adjust legislation in the country with EU legislation in order to ensure efficient environmental protection. In the previous period, environmental regulations have been dispersed in various acts, laws, and regulations. These laws have proscribed obligation to pass numerous other acts and to define obligations of various responsible bodies. This set of laws exists separately in both entities, and they are not completely adjusted. In the entity Federation of Bosnia and Herzegovina nature protection is regulated by the Law on nature protection. This law defines conditions and modes for sustainable protection and management of natural areas, plants, animals, and their habitats, minerals and fossils, and other components of nature, responsibilities of bodies which carry out activities in the field of nature protection, and general and special measures for nature protection, information system, funding of nature protection, monitoring, etc. This law, in Article 25 defines four categories of protected areas: (1) protected natural area, (2) national park, (3) nature monument, and (4) protected landscape. In the entity Republic of Srpska Law on Nature Protection in Article 25 categories of protected areas are defined as follows: (1) protected natural area, (2) national park, (3) nature monument, (4) habitat management area, (5) protected landscape, and (6) managed resource protected area.

Unfortunatelly, Bosnia and Herzegovina still do not have roof institution or agency responsible for nature protection at the state level which would coordinate adjustment of existing laws and activities in the field of nature protection. At the state level, Ministry of Foreign Trade and Economic Relationships of Bosnia and Herzegovina is responsible for international conventions and agreements. Federal Ministry for Environment and Tourism (FBIH) is responsible for designation of national parks, while cantonal ministries are responsible for designation of nature monument and protected landscape. In Republic of Srpska (RS) Ministry for Physical Planning, Building and Ecology is responsible for designation of protected areas at all levels.

Projections of establishment and development of new protected areas are based on relevant documents of Spatial plan of Bosnia and Herzegovina from 1981 (Phase B – Valorisation of natural and cultural-historical values), guidelines of NEAP for Bosnia and Herzegovina, as well as on the numerous strategic documents prepared in the recent years, such as Project of protected forest and mountain areas – environmental assessment, Strategy of development of tourism in FBiH, etc. Experts from various fields gave also valuable inputs that have been also incorporated in preparation of the strategy for future protected areas. Particular important role in these activities play NGO's which often initiate and carry out activities related to valorisation and establihment of protected areas following IUCN criteria and guidlines.

Current mainly negative trends in the field of nature protection are caused by attitudes of responsible entity, cantonal or municipal authorities to nature protection and preservation of natural heritage since they often promoted unsustainable economic activities, such as usurpation and conversion of natural areas with high values into construction or industrial sites, landfills, etc. Particularlly negative impacts in protected areas have forestry sector activities, such as forest clearing and cutting, which leads to degradation of ambiental values, deteroriation of biodiversity and acceleration of erosion and generation of landslides. All these factors make significant obstacles for implementation of integral solutions in

preservation of existing and planning of new protected areas and organisation of unique network of protected areas at the state level.

3. Proposed protected areas and development of protected areas network

On the basis of above mentioned facts, it could be concluded that goals of natural values protection include establishment of more efficient system of long-term protection of the most valuable and most important natural areas which are distinguished by high biodiversity values and in accordance with contemporary ecological criteria and standards of EU. In order to achieve this goal, it would be necessary to develop and implement methodology which would enable permanent monitoring of the state and changes in protected areas and in their surroundings. The highest priority should be given to the development of comprehensive information system as a main tool necessary for efficient monitoring and prompt and objective insight of the state natural heritage. This would assist in prevention of furter deterioration of natural resources and in restoration and recovering of biodiversity to the state of natural equillibrium and harmonisation with development activities. It also would be necessary to very carefully carry out planning infrastructure in the ecologically sensitive areas taking into acount visual identity and landscape values. Nature protection should have an equal status to other sectore in spatial plans. Only in this way it would be possible to secure right of the citizens to live in healthy environment.

Mentioned objectives in the field of nature protection in Bosnia and Herzegovina could be achieved only by strict implementation of existing legislation and through innovation or changes of certain regulations which are not functional. Responsible state institutions and bodies should pay much more attention to education and improvement of the knowledge of local communities on importance of protected areas.

Taking into account high level of biodiversity and significant negative human impacts on the environment, it would be necessary to extend the size and number of the protected area in the country. Habitat fragmentation and the theory of island biogeography stress the need for establishment of protected area network (PAN). The proposed PAN would have three main structural elements: core areas, islands, and ecological corridors. National parks will make core areas in PAN. Therefore, main focus should be given to the designation of new protected areas in the category national parks in order to facilitate preservation of the most representative ecosystems and their main features with simultaneous promotion of sustainable forms of tourism with particpation of local communities.

Small reserves could be useful, but if they represent just small isolated areas without any direct connection with core areas (national parks), the species that depend on them may be very vulnerable to extinction. The core areas are linked by ecological corridors, both terrestrial and aquatic. The corridors serve for regular seasonal migration of certain animal species. They are also very important for the plants and their dispersal over long distances. Ecological corridors should enable free gene flow and biological communication between areas with high biodiversity and high sensitivity. The main principle is to allow natural processes to continue without any human interventions, unless they are really necessary. One of very important objectives is development of strategy for establishment of protected area

network and preparation of necessary documentation and management plans for all protected areas.

Spatial data gathered from various sources have been used for creation of thematic layers (geology, soil types, climate, hydrology, main vegetation units – at the level of alliance, data on protected areas, CLC 2000, satellite imagery) in order to indentify elements of future PAN. GIS analysis and existing data on biodiversity from literature and field research in the post war period have been used for the selection of future PAN elements. Methodology used in valorisation of natural diversity and categorisation of protected areas was based on the guidlines given by IUCN. Also, one of the main elements used in this approach was relative small percentage and bad condition of existing protected areas.

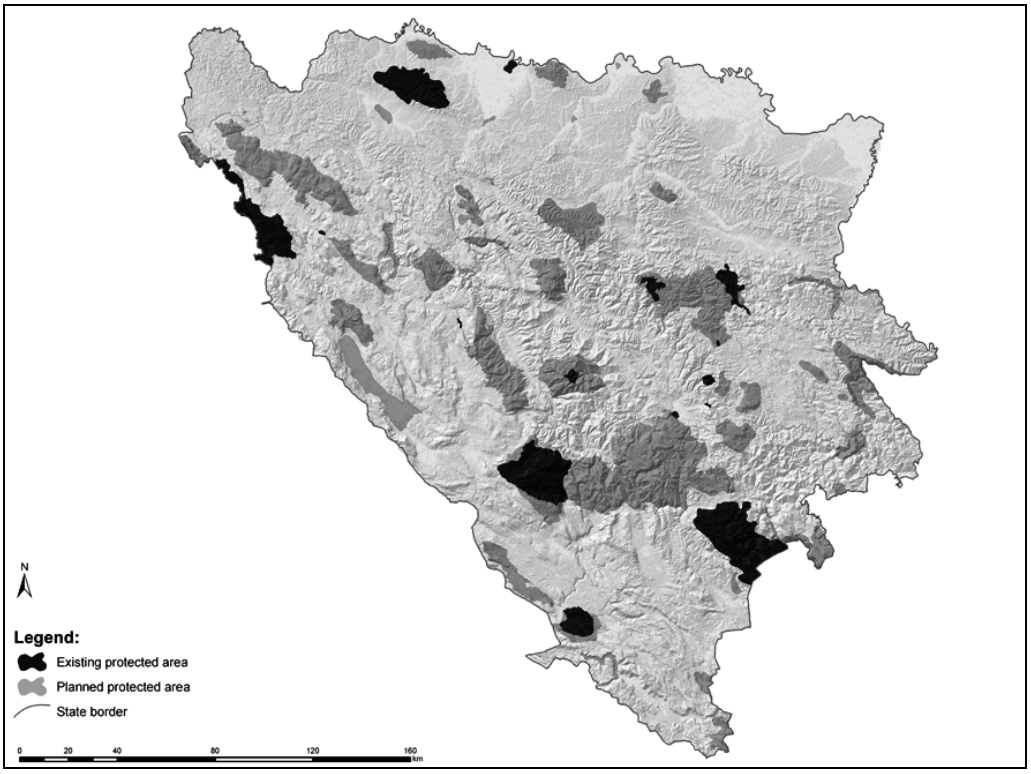

Fig. 1: Distribution of protected areas in Bosnia and Herzegovina.

Besides existing three national parks (Sutjeska, Kozara and Una), on the basis of the obtained results the following areas have been selected as additional core areas in the future PAN: 1) Olympic mountains – Mt. Igman and Mt. Bjelašnica in Sarajevo canton, 2) Mountains of endemic center in Herzegovina – Mt. Prenj, Mt. Čvrsnica and Mt. Čabulja, 3) Mt. Vranica in Central Bosnia, 4) Mountain complex Konjuh – Zvijezda – Tajan in Central Bosnia, 5) Livanjsko polje in SW Bosnia as the largest karst field in the world, 6) Mt. Šator in the western Bosnia, and 7) Mt. Grmeč in NW Bosnia. Other areas proposed in the physical plans of both entities would serve as islands and corridors in PAN of Bosnia and Herzegovina.

With protection of these new core areas the total size of protected areas in the country would increase to 9.6%. Spatial plan of Federation of Bosnia and Herzegovina has projected that 444 321.2 ha should be protected, while Spatial plan of Republic of Srpska plan to protect 315 192 ha. This means that in Bosnia and Herzegovina 759 513.2 ha or 14.85% should be designated as protected areas.

One of the most important current activities in the field of nature protection is WWF MedPO project Europe's Living Heart: Preserving B&H's natural heritage using EU-tools (II phase and III phase). The objective of the project is development of Natura 2000 network which will assist to fulfill existing gaps in protected area network and to achieve, in the first place, higher degree of efficent protection of species and habitats which are not included in protected area network.

4. Conclusion

Since the United Nations have declared 2010 as the International Biodiversity Year, Biodiversity for Development, this could give an additional impetus for promotion of development of protected area network in Bosnia and Herzegovina, particularlly taking into acount that with only 2.6% of protected areas, the country is far from both regional and European level. The current situation in the field of nature protection does not reflect high biodiversity level at both species and ecosystem level. Lack of strategy and coordination efforts at the state level and absence of reliable information additionaly complicate already a very complex situation in this field. Development of information system and focusing of research on the role and importance of protected areas in the sustainable development should play a crucial role in long-term preserving of biodiversity in Bosnia and Herzegovina. In order to strengthen conservation strategies at the national level it would be necessary to strenghten the capacity and capability of government institutions to manage natural resources. Lack of protected areas system is one of the main direct threats to biodiversity conservation. Threfore, primary objective of establishment of protected area network (PAN) in Bosnia and Herzegovina is to ensure conservation of valuable natural areas, which contain representatives of all main ecosystem types that could be found in the country. Development of PAN is the best way to protect biodiversity and threatened species and ecosystems. Only in this way, sustainable conservation of biodiversity could be achieved.

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NATURE PROTECTION IN BOSNIA AND HERZEGOVINA: STATE AND PERSPECTIVES

Summary

Geographical position of Bosnia and Herzgovin in the southeasten Europe, inckuding its specific geological composition and a very dynamic relief created a very suitable conditions for development of a very high level of biodiversity. Particular importance have climate features of the country since it is a dividing zone of two main climate types: the northern moderate climate belt and the northern subtropical climate belt. Although investigations of both the flora and the fauna have a very long tradition, with the first records dated back into 18th century, organised nature protection in Bosnia and Herzegovina has begun in the second half of the last century. A very first fully protected natural area was established in 1954 in the area of the Sutjeska river canyon – the pristine forest Perućica. After that, the establishment of all protetced areas was based on the national legislation from that period, and it was not followed the IUCN guidelines and criteria for protected areas. During that period, only up to 1% of teritorry was designated as protected areas, with the National park Sutjeska as the most imporant. In the post-war period, Bosnia and Herzegovina has completely included all IUCN criteria in protected area establishment. This resulted in development of new protected areas and in the increase of the size of protected areas up to 3%. The most important are National park Una, Natural monuments Prokoško lake, Tajan an Skakavac. Planning of the future development of protected area network is defined by the Spatial plans of two entities. Tha plan is that in the next 20 years more than 16% of the state tertory should be protected. At the moment, in Bosnia and Herzegovina are implement the results of NATURA 2000 and the Red lists of plants, animals and fungi, which will represenet solid base for identification of biodiversity hot spots in the country.

VODA KOT PEDOGENETSKI DEJAVNIK V POREČJU SOTLE

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Izvleček

Voda kot pedogenetski dejavnik v porečju Sotle

Prst nastaja in se razvija na stiku prepletanja in medsebojnega delovanja vseh sestavin pokrajine, tudi hidrosfere. Ugotoviti želimo, kako vodni viri v porečju Sotle vplivajo na značilnosti prsti, saj je poznavanje teh zakonitosti pomembno za usmerjanje rabe tal in s tem za varovanje prsti. V ta namen smo porečje Sotle razdelili v pet hidrografskih območij in jih primerjali glede na vodne in pedološke značilnosti ter pri tem upoštevali značilnosti rabe tal. Glavni poudarek smo dali metodi analize z GIS-i. Porečje Sotle leži ob slovensko-hrvaški meji in je izrazito asimetrično. Rečna mreža je gosta, prisotne pa so tudi številne stoječe vode. Od rabe tal prevladuje gozd, sledijo travniki in pašniki, njive, pozidana zemljišča, vinogradi, sadovnjaki, drevesa in grmičevje, mokrišča in barjanski travniki. Od prsti prevladujejo evtrične in distrične rjave, medtem ko hriboviti svet prekrivajo rendzine, rankerji in rjave pokarbonatne prsti. Vinogradniške lege označujejo rigolane prsti, v rečnih dolinah pa prevladujejo obrečne prsti na ilovnatem aluviju, oglejene in psevdooglejene prsti. Površinske vode, ki so v veliki meri podvržene človekovemu delovanju, imajo v porečju Sotle velik učinek na prsti, kar se odraža tudi v rabi zemljišč. Tako se v porečju Sotle pojavlja velik delež njivskih zemljišč, ki so najobsežnejša na holocenskih ravnicah ob Sotli, Mestinjščici in Bistrici, kjer prevladujejo hidromorfne prsti.

Ključne besede

geografija, vodni viri, prst, porečje Sotle

Abstract

Water as a pedogenetical factor in the river basin of Sotla

Soil develops on the contact of all components of the landscape, including hydrosphere. We want to find out, how water resources in Sotla river basin contribute to soil characteristics. This knowledge is important for land use orientation and consequently for soil protection. For this purpose we studied Sotla river basin as region, which is divided on five hydrographical areas. We compared them according to water and pedological characteristics considering land use. The accent was on GIS methodology. Sotla river basin is located along Slovenian-Croatian border and is very asymmetric. The river network is very dense, present are also many standing waters. From land use predominate forests followed by grasslands, fields, built-up areas, vineyards, orchards, trees and bushes, swamps and marsh grasslands. From the soils predominate eutric and distric brown soils, in hills rendzina, ranker and brown soils on limestone. Vineyard sites cover anthropogenic soils. In river valleys are spread riverine soils on clay, gleyed and pseudogleyed soils. Surface waters in Sotla river basin are highly subjected to human act and have great influence on soils. That reflects in land use. It can be recognized in high percent of agriculture fields, the most extensive on holocen flat lands along rivers Sotla, Mestinjščica and Bistrica, where predominate hydromorfic soils.

Key words

Geography, water resources, soil, Sotla river basin

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1. Uvod

Prst nastaja in se razvija na stiku prepletanja in medsebojnega delovanja vseh sestavin pokrajine, med drugim tudi hidrosfere (Lovrenčak 2006), kar se odraža v gibanju vode skozi profil prsti. V subpanonski Sloveniji, kamor spada tudi porečje Sotle, je voda poleg kamninske zgradbe in reliefa odločilen pedogenetski dejavnik (Repe 2004). Poleg tega je vlaga v prsti pogojena s človekovim delovanjem (Vovk Korže in Lovrenčak 2004). Prst združuje celo vrsto funkcij, od katerih izpostavimo zadrževanje in blaženje učinkov polutantov (Špes in sod. 2002), ki nemalokrat pridejo v prst z vodo. Zaradi tega ima prst v pokrajini tudi varovalno funkcijo. Prst pomembno vpliva na značilnosti površinskih in podzemnih voda in obratno. Tako lahko voda vpliva na degradacijo prsti s procesom vodne erozije. Pomembno je tudi obdelovanje prsti, saj se pri intenzivni kmetijski pridelavi prsti zbijajo, kar vpliva na zmanjšanje vpijanja vode in pospešuje njen površinski odtok (Lovrenčak 2006).

2. Metodologija

Za prikaz vode kot pedogenetskega dejavnika v porečju Sotle smo podkrepili pisne vire z GIS analizami, podatkovnimi bazami in terenskimi spoznanji. Uporabili smo orodje ArcGIS Desktop 9 in izvedli analizi prekrivanja podatkov in računanja vrednosti atributov. Podatkovne baze, ki smo jih uporabili, so Dejanska raba kmetijskih zemljišč (2007), Pedologija (2007), Hidrografija (2007), podatki o hidrografskih območjih in razvodnicah, ki jih najdemo v informacijskem in komunikacijskem omrežju za poročanje o okolju (Eionet), Naravne vrednote (2007) in Natura 2000 (2007). Pri terenskem delu smo opazovali stanje korita reke Sotle, melioracijske sisteme na holocenskih ravnicah in zamočvirjena zemljišča. Celotno porečje Sotle smo prikazali kot sestavino petih hidrografskih enot, ki pomenijo prostorske enote IV. ravni, opredeljene s stani Agencije Republike Slovenije za okolje. Vsaka hidrografska enota odraža karakteristike posameznih delov porečja: zgornji, srednji in spodnji del porečja Sotle, porečje Mestinjščice ter porečje Bistrice. Tako smo dobili številčne primerjave hidrografskih območij glede na pojavnost vodnih virov in njihovih značilnosti ter glede na pojavnost posameznih tipov prsti. Rabi tal (Dejanska raba kmetijskih zemljišč 2007) smo namenili posebno pozornost kot dejavniku, ki je močno odvisen od vodnih značilnosti in značilnosti prsti ter nanje močno vpliva. Rezultat raziskave se kaže v soodvisnosti med vodnimi značilnostmi v pokrajini in značilnostmi prsti v pokrajini. Ta soodvisnost je lahko ob usmerjanju antropogenega delovanja izhodišče sonaravnega razvoja.

3. Rezultati

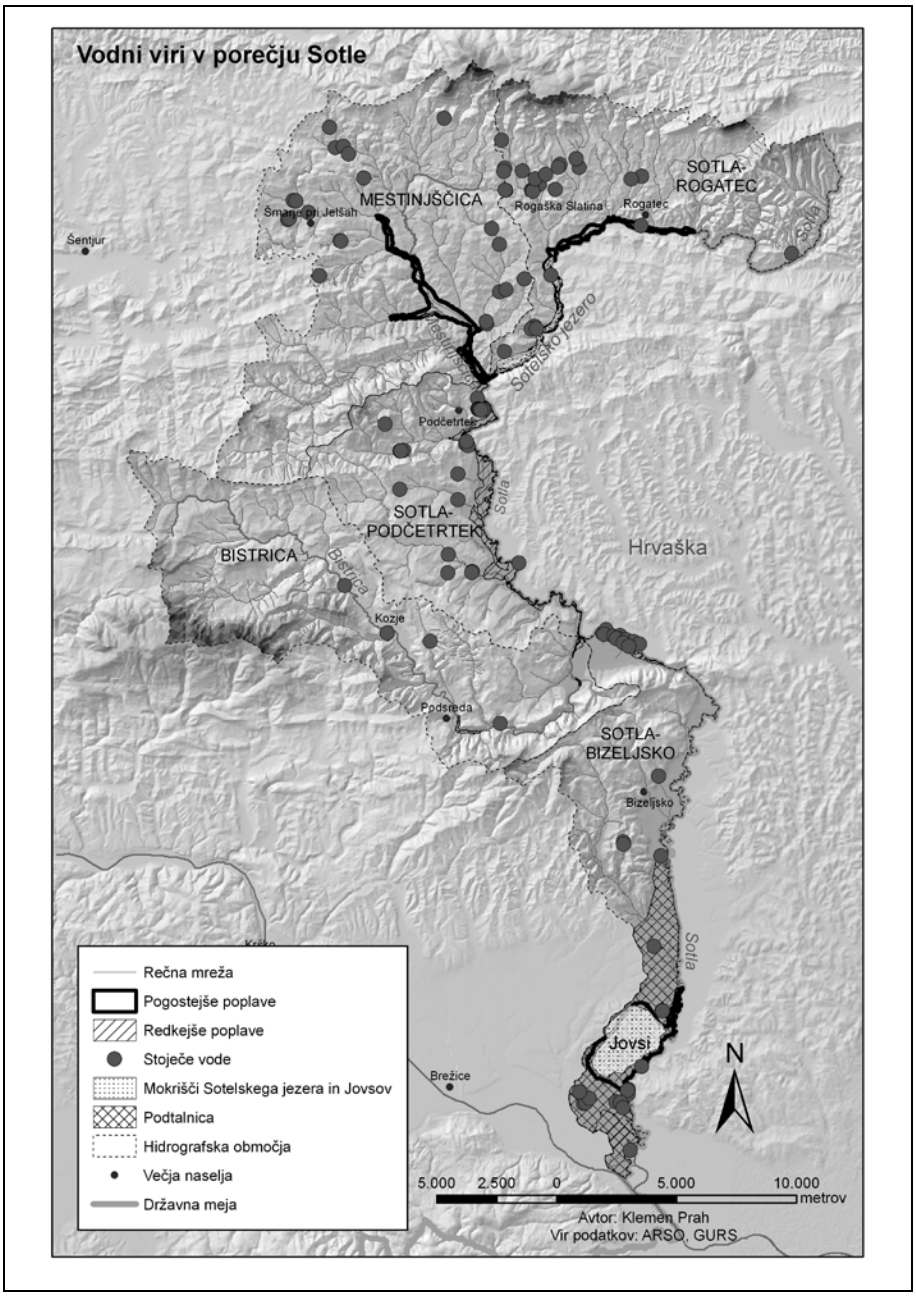
Reka Sotla izvira na območju Maclja in se izliva v Savo. Njeno porečje se razteza v smeri sever-jug ob slovensko hrvaški meji (slika 1). Je izrazito asimetrično, saj pretežni del sotelskih pritokov pripada slovenski strani, in sicer zgornjemu in srednjemu toku reke. Po obsežnosti vodozbirnega območja sta Mestinjščica in Bistrica največja pritoka Sotle. Porečje Sotle sestavlja pet hidrografskih območij: Sotla-Rogatec (79,0 km^2 oz. 17,5 % porečja), Mestinjščica (134,1 km^2 oz. 29,7 % porečja), Sotla-Podčetrtek (61 km^2 oz. 13,6 % porečja), Bistrica (108,3 km^2 oz. 24,0 % porečja) in Sotla-Bizeljsko (68,9 km^2 oz. 15,3 % porečja) (Eionet). Po t.i. novi regionalizaciji Slovenije (Slovenija – pokrajine in ljudje 1998) spada pretežni del porečja Sotle v Panonski svet. Od severa proti jugu si sledijo mezoregije Boč in Macelj, Zgornjesotelsko gričevje, Srednjesotelsko gričevje, Bizeljsko gričevje in Krška ravan. Od zahoda se z Rudnico in Orlico v Panonski svet zajeda Posavsko

hribovje. Porečje Sotle ima subpanonsko podnebje. Trend padavin kaže za Podsredo zaskrbljujoč podatek, da se povprečna letna višina padavin v zadnjih tridesetih letih rahlo zmanjšuje (Meteorološki podatki 2007), kar vpliva na zmanjšanje vodnega pretoka.

Na neprepustnih in slabo prepustnih kamninah je rečna mreža povsod po Sloveniji gosta (Bat in sod. 2003), tako tudi v porečju Sotle. Kljub temu, da so bile na nekaterih odsekih struge izvedene regulacije, ki so danes slabo vzdrževane, je korito Sotle dokaj naravno. Sotla s pritoki poplavlja več ali manj vzdolž celega toka, pri čemer je poglavitni vzrok nižinski vododržen svet (laporji in ilovice) z majhnim strmcem. Ob srednji Sotli, kjer je holocenska ravnica najširša, so poplave najobsežnejše, še posebej pri Podčetrtku, Imenem in Sedlarjevem (Kolbezen in Žagar 1978). Z melioracijskimi sistemi so v sedemdesetih in osemdesetih letih prejšnjega stoletja poskušali osušiti holocenske ravnice ter s tem izboljšati pogoje za kmetijstvo. Sotla spada med bolj onesnažene vodotoke v Sloveniji (Čuješ 2007).

Poleg površinskih vodotokov se v porečju Sotle nahajajo različne oblike stoječih voda. Glede na podatkovni vir Geodetske uprave Republike Slovenije (Hidrografija 2007) narašča številčnost jezer oz. mrtvih rečnih rokavov po porečju navzdol, ko se tok reke Sotle umirja. Najmanj jih je v hidrografskem območju Bistrica, ki ima v celoti hudourniški tok, malo pa jih je tudi v hidrografskem območju Sotla-Rogatec. Najobsežnejši mokrišči sta Jovsi in območje nekdanjega Sotelskega jezera. Porečje Sotle je bogato s podzemno vodo, pri čemer predstavljajo posebnost naravno bogastvo mineralne vode na območju Rogaške Slatine in termalne vode na območju Podčetrtka. V spodnjem delu porečja Sotle je na Brežiškem polju območje podtalnice. V porečju Sotle se nahajajo številne hidrološke naravne vrednote, kot so površinski vodni tokovi z ohranjenimi meandri, izviri in soteske (Naravne vrednote). Območje mokrotnih tal Dobrava-Jovsi je posebno varstveno območje Natura 2000 (Natura 2000).

Vodne značilnosti porečja Sotle vplivajo na značilnosti prsti, oboje pa je tesno povezano z rabo tal. Po podatkih Ministrstva za kmetijstvo, gozdarstvo in prehrano (Dejanska raba kmetijskih zemljišč 2007) prevladuje v porečju Sotle s 43,8 % površja gozd. Od kmetijskih površin prevladujejo travniki in pašniki z 28 %, na drugem mestu pa so njive z 12,2 %. Delež njiv je največji v hidrografskih območjih Sotla-Bizeljsko (25 % hidrografskega območja) in Sotla-Podčetrtek (16,5 % hidrografskega območja). Na sončnih legah in primernih kamninah so vinogradi, ki pokrivajo 3,6 % površja porečja Sotle. Delež vinogradniških površin je največji v hidrografskih območjih Sotla-Bizeljsko (7,7 % hidrografskega območja) in Sotla-Podčetrtek (6,5 % hidrografskega območja), saj uvrščamo pokrajino ob srednji Sotli med najbolj vinorodna območja (Slovenija – pokrajine in ljudje, 1998). V primerjavi z vinogradi je delež sadovnjakov v porečju Sotle manjši (2,9 %). V majhnih deležih se v porečju Sotle pojavljajo drevesa in grmičevje (1,49 %), mokrišča (0,12 %) in barjanski travniki (0,07 %). Drevesa in grmičevje se v veliki meri pojavljajo ob potokih in rekah, največji delež pa imajo v hidrografskem območju Sotla-Bizeljsko (2,6 % hidrografskega območja), kjer se razraščajo tudi na območju vlažnih in poplavnih travnikov v Jovsih. Največji delež zamočvirjenih zemljišč se nahaja v hidrografskem območju Sotla-Rogatec (0,45 % hidrografskega območja) in so v veliki meri razporejena ob reki Sotli in na območju nekdanjega Sotelskega jezera. Največji delež pozidanih zemljišč ima hidrografsko območje Sotla-Rogatec (8,9 % hidrografskega območja).



Slika 1: Vodni viri v porečju Sotle.

Po podatkih Ministrstva za kmetijstvo, gozdarstvo in prehrano (Pedologija 2007) prevladujejo v porečju Sotle evtrične rjave (41,8 %) in distrične rjave prsti (18,3 %), ki prekrivajo gričevnat svet. Delež evtričnih rjavih prsti, za katere je značilna dobra prepustnost, znaša v hidrografskih območjih Bistrica kar 62,0 %, Sotla-Podčetrtek 55,8 %, Mestinjščica 39,3 % in Sotla-Bizeljsko 36,7 % površja

(Preglednica 1). Delež distričnih rjavih prsti je največji v hidrografskem območju Sotla-Rogatec (33,8 %) in se zmanjšuje preko hidrografskih območij Mestinjščica (31,6 %), Sotla-Podčetrtek (14,5 %), do hidrografskih območij Bistrica in Sotla-Bizeljsko, kjer je zelo majhen in znaša 3,3 % oz. 1,4 %.

Preglednica 1: Delež (%) tipov prsti v porečju Sotle po hidrografskih območjih.

Tip prsti	Sotla-Rogatec	Mestinjščica	Sotla-Podčetrtek	Bistrica	Sotla-Bizeljsko
Evtrične rjave prsti	11,8	39,3	55,8	62,0	36,7
Distrične rjave prsti	33,8	31,6	14,5	3,3	1,4
Rendzine	7,3	10,4	7,7	20,7	13,2
Rankerji	27,4	1,5	1,6	1,6	0,0
Rjave pokarbonatne prsti	0,8	1,7	0,8	5,6	0,9
Rigolane vinogradniške prsti	0,7	5,4	6,2	0,6	6,4
Obrečne prsti na ilovnatem aluviju	7,2	1,9	6,0	3,2	10,1
Obrečne prsti na prodnatem aluviju	0,0	0,0	0,0	0,0	7,8
Oglejene prsti (hipoglej)	2,4	7,5	5,9	2,5	16,0
Oglejene prsti (amfiglej)	0,0	0,0	0,0	0,0	0,9
Psevdooglejene prsti	5,1	0,2	1,4	0,3	6,2
Nerodovitno (urbane površine)	2,3	0,6	0,1	0,4	0,3
Nerodovitno (vodne površine)	0,9	0,0	0,0	0,0	0,0
Skupaj	100,0	100,0	100,0	100,0	100,0

Vir: Ministrstvo za kmetijstvo, gozdarstvo in prehrano.

Hriboviti svet Boča, Maclja, Bohorja, Rudnice in Orlice prekrivajo rendzine, rankerji in rjave pokarbonatne prsti. Največja deleža rendzin in rjavih pokarbonatnih tal sta v hidrografskem območju Bistrica in znašata 20,7 % oz. 5,6 %, medtem ko je največji delež rankerjev (27,4 %) v hidrografskem območju Sotla-Rogatec. Ponekod v predgorju Boča ter v Zgornjesotelskem, Srednjesotelskem in Bizeljskem gričevju se pojavljajo rigolane vinogradniške prsti. V celem porečju Sotle zavzemajo 3,7 % delež, od tega največ v hidrografskih območjih Sotla-Bizeljsko (6,4 %), Sotla-Podčetrtek (6,2 %) in Mestinjščica (5,4 %). Z rigolanjem se tlem poveča propustnost za pronicanje vode. V rečnih dolinah prevladujejo obrečne prsti na ilovnatem aluviju in pokrivajo 4,9 % površja porečja Sotle. V hidrografskem območju Sotla-Bizeljsko zavzemajo omenjene prsti kar 10,1 % površja. V istem hidrografskem območju se pojavljajo obrečne prsti tudi na prodnatem aluviju in obsegajo 7,8 % površja. Tam, kjer je nivo talne vode visok ali pa so pogoste poplave, so prisotne oglejene prsti. V celotnem porečju zavzemajo 6,6 % delež in prevladujejo ob spodnjem toku reke Sotle, kjer v hidrografskem območju Sotla-Bizeljsko zavzemajo 16,9 % delež. V precejšnji meri so zastopane še v hidrografskih območjih Mestinjščica (7,5 %) in Sotla-Podčetrtek (5,9 %). Prevladuje hipoglej, za katerega je značilno prekomerno vlaženje, ki je posledica visoke podtalne vode. Zaradi menjavanja obdobij nasičenosti z vodo in sušnih obdobij, so se ponekod razvila psevdooglejena tla. V celotnem porečju zavzemajo 2,2 % delež in so najgosteje zastopana v hidrografskih območjih Sotla-Bizeljsko in Sotla-Rogatec.

4. Sklep

V porečju Sotle prevladujejo evtrične in distrične rjave prsti, hriboviti svet pa prekrivajo rendzine, rankerji in rjave pokarbonatne prsti. Gre za avtomorfne prsti, na razvoj katerih vpliva le padavinska voda, ki prosto odteče skozi profil. Večji učinek na razvoj prsti imajo površinske vode, za katere so v porečju Sotle značilni gosto razpredena rečna mreža, dokaj dobro ohranjeno naravno korito Sotle z ozkim obrežnim pasom vegetacije, slabo vzdrževane regulacije, pogostost poplav, velika onesnaženost Sotle, bogastvo mrtvih rečnih rokavov ter močvirnatost Jovsov in Sotelskega jezera. Od podzemne vode omenimo prisotnost podtalnice v spodnjem delu porečja. Vodni viri so v veliki meri podvrženi človekovemu delovanju. Tako se v porečju Sotle pojavlja velik delež njivskih zemljišč, ki so najobsežnejša na holocenskih ravnicah ob Sotli, Mestinjščici in Bistrici. To so Zibiško in Pristavško polje, območje pri Podčetrtku, Imensko polje, območje pri Sedlarjevem, območje pri Bistrici ob Sotli ter območja v spodnjem delu porečja, še posebej južno od Dobove. Na holocenskih ravnicah prevladujejo obrečne prsti na ilovnatem aluviju in oglejene prsti, le južno od Dobove so prisotne obrečne prsti na prodnatem aluviju. Območja so pogosto poplavljena in so bila v preteklosti hidromeliorirana. Ker so intenzivno kmetijsko obdelovana, je še posebej na mestu skrb za varovanje prsti, v južnem delu porečja Sotle posredno tudi varovanje podtalnice. Porečje Sotle ima tudi vinogradniški značaj, ki je povezan z rigolanimi prstmi, v hidrografskem območju Sotla-Rogatec pa velja izpostaviti velik delež pozidanih površin, kjer je degradacija prsti največja.

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WATER AS A PEDOGENETICAL FACTOR IN THE RIVER BASIN OF SOTLA

Summary

In Sotla river basin predominate eutric and distric brown soils, on hills rendzina, ranker and brown soils on limestone. These are automorfic soils, influenced only by precipitations water, which flows freely through profile. More significant effect on soils have surface waters. Their characteristics in Sotla river basin are following: high density of river network, relatively good preserved natural riverbed with narrow vegetation riverside belt, insufficient maintained regulations, often flows, high pollution of Sotla river, richness of abandoned side branches of Sotla river and swampland of Jovsi and Sotla lake. South part of river basin is rich with groundwater. Water resources are highly influenced by human act. Let's mention high rate of agriculture fields, which are the most extensive on holocen flat lands along rivers Sotla, Mestinjščica and Bistrica. These are Zibika and Pristava field, area at Podčetrtek, Imeno field, areas at Sedlarjevo and Bistrica ob Sotli, and area in south part of river basin, especially south of Dobova. On these flat lands predominate hidromorfic riverine soils on clay, south of Dobova on gravel, and gleyed soils. Holocen flat lands are often flooded and were meliorated in the past. Concern for soil protection in these areas, in south part of river basin also for groundwater protection, is significant because of intensive agriculture. Sotla river basin has also vine-growing character, connected with anthropogenic soils. In hidrographic area Sotla-Rogatec must be mentioned high rate of build-up areas, where the degradation of soil is the biggest.

DYNAMICS AND DIVERSIFICATION OF LIVELIHOOD IN URBAN FRINGE OF ALIGARH CITY, U.P., INDIA

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Abstract
Dynamics and diversification of livelihood in urban fringe of Aligarh city, U.P., India
Urban fringe is a region of urban-rural interface, continuously moving outward in response to urban sprawl or expansion over the times. It is the area of socio economic transition, experiencing dynamism in the pattern of livelihoods of the people. Land resource used under various cropping systems providing livelihoods to the rural people is declining due to increasing demand of land for non agricultural uses. The declining agricultural activity in the urban fringe has resulted in diversification and structural change in livelihoods. The exposure to urban lifestyle and mass media is causing mental transformation of youth in the urban fringe. They are more inclined towards value added farming systems and non farm activities of secondary or tertiary sectors. Dynamics in socio-economic milieus of urban fringe presented the challenges for livelihood security, employment opportunities and the sustainability of existing farming system and environment in the area. The present study analyzes the impact of urban expansion upon the structural change in pattern of livelihood of people of various socio economic horizons and the diversification of farming systems in the urban fringe of Aligarh city during last 20 years. The study is based on primary data generated through field survey of five villages from urban fringe of the city. The Study reveals expansion of Aligarh city at least three times since 1990. A large number of villages have been included in municipality area but rural economic activities like cropping and animal husbandry still exist in the form of urban vegetable and dairy farming operated by the local people and the immigrants from other parts of the district. The urban fringe witnessed dynamism and diversification in sources of livelihood. The study reveals that approximately 20 percent of surveyed people are only engaged in agriculture. The other important source of livelihood is animal husbandry, agro-processing, retailing and allied services.This structural change in livelihood has resulted in social, economic and environmental instability.

Key words
Urban fringe, livelihood, farming system

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1. Introduction

The urban fringe is the zone of transition experiencing continuous change in the utilization of resources and services. The people of urban fringe experience both rural as well as urban influences (Sharp J.S. and Smith M.B. 2003). Many studies have been undertaken regarding the concept, delineation, and land use change in the fringe areas in India and abroad the notable ones are Galster Get al. 2001, Srivastava B and R. Ramchandran 1974.

The rapid urbanization in the Indo Gangetic plain has resulted in many fold growth of towns. The urban fringe or peri-urban areas are the important concentric zones at various radial distances from the city for the flow of perishable food resource like vegetables, milk and meat (Kroll F. et al. 2011). The rural urban fringe is associated with changes in population and social charactersitcs. Thus it is also associated with social and cultural conflicts (Beesley K.B. 2010). Globally the demand of milk and meat has increased tremendously. Per capita milk consumption increased by more than 50 percent during 1983 to 2002 (Delago, C. et al. 1999) This dynamic change in demand for animal products resulted in geographical and socio economic shifting in farmers' agriculture land use and production decision making process. Their increasing demand has encouraged the peri-urban and urban agriculture with the production of horticultural products and animal husbandry. Mode and scale of production have been also changing up. The urban fringe is the major source of vegetables to any city (Khan N and Rehman A. 2011). The rural markets in the urban fringe are the main channel of transaction of vegetables (Khan et al 2008). They have a very dominant role in the supply of fresh and cheap vegetables to any city and help in the sustainable development of the rural economy (Khan et al 2009). This particular form of peri-urban agriculture has the potential to provide cheap, fresh and nutritious food. It also saves the expenditure incurred for packaging, storage and transportation and has potential to generate more employment and incomes.

The continuously changing characteristics and socioeconomic variation makes it a place of diversification of livelihood. The maximum change is experienced in land utilization and hence it affects the livelihoods of the local people. The change of agricultural land to non agricultural purposes leads to evolution of new options of livelihood for the local people. The proximity to the city effects not only in social and mental change but also in behaviour of the people. The young people get multiple options livelihood options and the traditional livelihood of the rural areas is transformed into diverse form. The people getting income and employment through farming systems are no longer involved in farming and this dynamic shift in the livelihood results not only in insecurity of employment but also threatens the existing farming system and the environment of the area. The majority of the people once engaged in agricultural activities shift into different types of economic activities. The fringe area is a promising area for vegetable cultivation, animal husbandry and other allied activities which provides a supplement for the needs of the city (Khan et al 2010).

Moreover, Aligarh city is an important industrial and educational centre where population has been continuously increasing. Horizontal and vertical expansion both has taken place within last two decades tremendously. Aligarh is an academic hub and attracted thousands of population. Muslim population shares approximately 50 per cent of total city residents. Approximately twenty thousand students reside in

the university hostels. Thus the demand for vegetable, milk and meat is very high. Buffalo meat is greatly demanded in the city itself due to larger number of Muslim population. Meat producing industries located in Aligarh periphery area have also accelerated demand for buffalo. Besides, a large number of milk processing units are located in the city which demand more amount of milk excluding the milk demanded for direct consumption.

Thus the demand in the city and the loss of agricultural land in the urban fringe is responsible for employing the people of the urban fringe into various livelihood activities. This rapid change in the urban fringe leads to both socio-economic and environmental change. The present paper explores these issues of the urban fringe of Aligarh city.

2. Aims and Objectives:

The present study has been undertaken with the following objectives:

1. To analyze the spatio-temporal change in area and population of Aligarh city over the last two decades.
2. To study the pattern of changing livelihoods in the urban fringe of the city.
3. To suggest possible solutions for sustainable development of the people, agriculture and environment in the urban fringe.

3. Methodology

The study is based upon primary and secondary data. The primary data regarding the occupational, social and environmental change was obtained with the help of a questionnaire. The filed survey was conducted in the 5 villages. One thousand respondents, 200 from each village were surveyed from the sampled villages selected on following basis:

1. Distance from the CBD: The villages selected for field survey were not more than 10 kms. away from the CBD. The villages were selected in different directions.
2. Population Size: The village sampled for the survey should not be having more than 3000 population.

The secondary data regarding spatial and temporal change of area and population of Aligarh city, and other relevant data was obtained from the Municipal Corporation, Aligarh and other government offices.

4. Study Area: Urban Fringe of Aligarh City

Aligarh city is situated in the western part of Uttar Pradesh at 27^0.53' North latitude and $78.^0$05' East longitude. It is one of the important educational and industrial towns in the north India having a population of 8, 27,000 persons. The city can be roughly divided into 2 parts, the old city area and the civil line area. The old city area is more densely populated and small scale lock factory is dominated there. The civil line area is the newly developed area having less dense population. It is also the seat of Aligarh Muslim University, a residential university harbouring about 20,000 students. Aligarh city has a literacy rate of 63.92 %. Presently, the city is divided into 70 wards for administrative convenience. The old city has a large proportion of Hindu population while the civil lines area is highly dominated by the Muslim population. The urban fringe under the present study covers 96 villages.

The urban fringe of Aligarh city undertaken under this study is limited to 10 Kms from the centre of the city. The urban fringe is mainly dominated by the agricultural activities and the impact of Aligarh city is seen as we approach the city. The total number of households in the sampled villages is 1471 having a population of 9,170 persons (Table 1).

Tab. 1: Sampled Villages in Urban fringe of Aligarh City.

S. No.	Sampled Village	Total Households	Total Population	Distance from Aligarh (Kms.)
1	Siya Khas	254	1682	4
2	Boner	243	1403	7
3	Morthal	334	2125	9
4	Talaspur	386	2476	8
5	Luosara Bisawan	214	1484	7
Total		1471	9170	

Source: Primary Census Abstract, 2001.

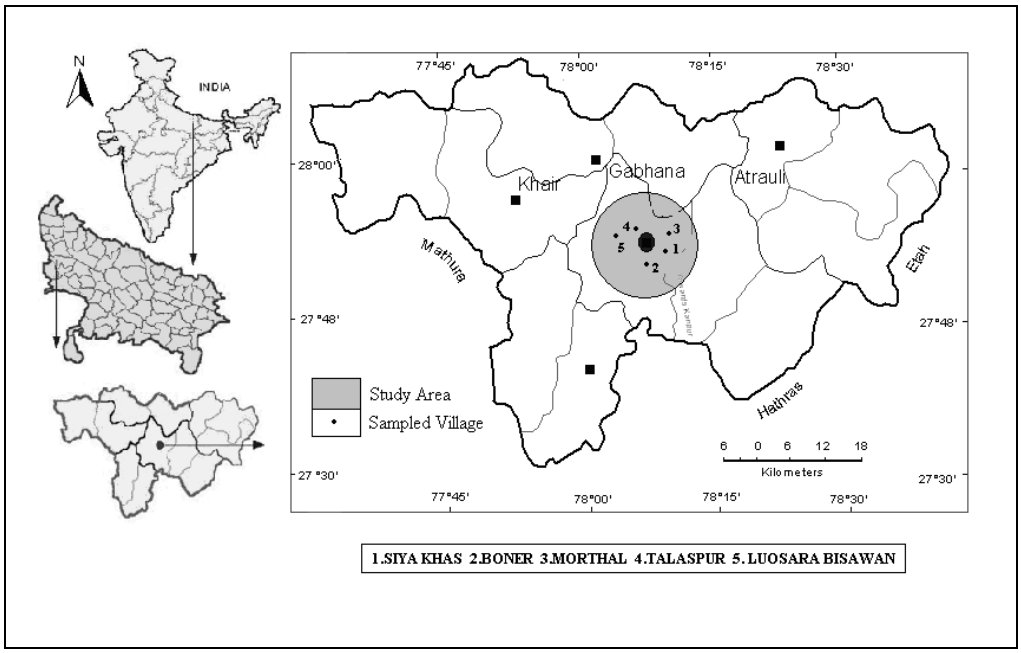

Fig. 1: Aligarh City - Study Area.

5. Temporal Change in Area and Population of Aligarh City

The population of Aligarh has increased considerably over the last decades. The population of Aligarh during 1961 was 185020 persons It rose up to 9, 31,637 persons in 2011.

Tab. 2: Decadal Change in Area and population in Aligarh City (1961-2011).

Year	Population	Decadal Growth Rate (%)	Municipal Area (Km^2)
1951	141668	-	-
1961	185020	30.60	-
1971	253314	36.91	-
1981	320861	26.66	17.32
1991	480520	49.76	17.32
2001	669087	39.24	17.32
2010	827000	23.60	50.54
2011	931637*	39.24*	50.54

Source: Statistical Booklet of District Aligarh (1971, 1981, 1991 and 2001)
* Estimated from decadal growth rate

Thus during the last fifty years the population has increased by 4.5 times and has doubled in the last two decades (Table 2). The urban area under municipal limit has also changed from 17.32 square km in 1971 to 50.54 square km in 2011. The total number of households also increased from 1, 02,004 to 1, 29,590 during 2001 to 2011.

6. Social Structure of Respondents

The respondents in the study area belong to different socio-economic strata of the society. The Indian society has developed its distinct social and cultural variations on the basis of the economic status. The role of social and cultural difference is an important factor for the type of livelihood adopted by a certain group of people. In general the social groups are divided into High class; other backward Class (OBC) and Scheduled Castes (SC).

Tab. 3: Caste wise Share of respondents in sampled villages.

S. No.	Sampled Village	High Class	OBC	SC	Total Respondents
1	Siya Khas	21 (10.51)	67 (33.50)	112 (56.00)	200 (100.00)
2	Boner	49 (24.50)	108 (54.00)	43 (21.50)	200 (100.00)
3	Morthal	37 (18.50)	136 (68.00)	27 (13.50)	200 (100.00)
4	Talaspur	44 (22.00)	84 (42.00)	72 (36.00)	200 (100.00)
5	Luosara Bisawan	82 (41.00)	64 (32.00)	54 (27.00)	200 (100.00)
Total		233 (23.30)	459 (45.90)	308 (30.80)	1000 (100.00)

Source: Field Survey (2012).

The high class people are generally having more influence in the society and belong to upper economic strata of the society. The literacy and employment level is more among the high class people. They generally dominate all the social and cultural activities of the society. They generally engage themselves in agricultural,

administrative or other tertiary activities pertaining to high status. The other backward Classes (OBC's) are the deprived class of the society lacking in both education and employment. They are weaker sections of the society and generally engage themselves in routine daily activities and small low pay jobs. The scheduled castes (SC) are the most deprived and unprivileged class of the society. They are engaged into the lowest order of the jobs, generally not preferred by and other class of the society. They are generally having very low income and are merely educated. The table 3 reveals caste wise share of the respondents. The majority of respondents in the sampled villages belong to the OBC's (45.90 %) followed by SC's (30.80 %) and High class (23.30 %).

7. Occupational Structure of Respondents

The occupation or livelihood is highly influenced by the socio-economic order of a person. Traditionally the social recognition of a person is based upon its caste/ethnic order. The people of the high caste prefer some specific jobs which are different from the jobs done by the OBC's and SC's people. The study reveals that the respondents in the sampled villages are also engaged in different types of occupations according to their social order. Table 4 shows that the people of the high class are generally engaged in agriculture, marketing, shop keeping, animal husbandry and private jobs. They do not prefer to do handicraft, agricultural worker, labour or industrial workers. The livelihood of OBC,s is more diversified and they are engaged in those occupations also which are not preferred by the high caste people. The SC are also engaged in all types of activities but their share in business, marketing, shop keeping and private job is quiet less. They work as agricultural labour, labour and other occupations which are not done by the OBC's and the High Class people

Tab. 4: Caste wise Occupational Distribution of respondents in Sampled Villages.

S.No.	Primary Source of Income	High Class	OBC	SC	Total
1	Agriculture	159	103	130	392
2	Animal Husbandry	16	87	42	145
3	Agricultural Worker	0	67	46	113
4	Handicraft	0	5	3	8
5	Shop keeping	14	6	3	23
6	Labour	0	122	48	170
7	Marketing /Business	27	6	3	36
8	Other Occupation	8	51	28	87
9	Private Job	9	7	3	19
10	Industrial worker	0	5	2	7
	Total Respondents	233 (23.30)	459 (45.90)	308 (30.80)	1000 (100.00)

Source: Field Survey (2012).

8. Livelihood Change in Fringe Areas of Aligarh City

The study reveals that there is a shift in the pattern of livelihood of the people in the fringe of Aligarh city. The survey of 1000 respondents in the 5 sampled villages in

the fringe area reveals that the landless people have adopted various new means of livelihood for their sustenance. The change in the livelihood is highly associated with the income from a certain occupation. The people have moved into more remunerative means from their traditional forms of livelihoods. The people of the urban fringe tend to get involved into the new livelihoods due to social and cultural change experienced by them due to the proximity of the Aligarh city.

Tab. 5: Decadal Change in Livelihood of respondents in Urban Fringe of Aligarh City.

S. No.	Primary Source of Income	Number of Respondents (2001)	Number of Respondents (2012)	Difference	Decadal Change (In %)
1	Agriculture	459	392	-67	-14.60
2	Animal Husbandry	120	145	25	20.83
3	Agricultural Worker	150	113	-37	-24.67
4	Handicraft	15	8	-7	-46.67
5	Shop keeping	17	23	6	35.29
6	Labour	130	170	40	30.77
7	Marketing /Business	27	36	9	33.33
8	Other Occupation	73	87	14	19.17
9	Private Job	9	19	10	111.11
10	Industrial worker	0	7	7	100.00
Total Respondents		1000	1000		

Source: Field Survey (2012).

The study reveals a decline in the traditional forms of livelihood and people have shifted to new options available to them. The respondents in the urban fringe were engaged in 9 types of occupation during 2001.The largest numbers of respondents were found to be engaged in agriculture (45.9 %) followed by agricultural workers (15.0 %) and labour (12.0 %).The rest were engaged in different occupations as shown in Table 5. The maximum numbers of respondents were practicing agriculture and worked as agricultural labourers. The domination of agriculture and agriculture related activities were found.

The decadal change in livelihoods is seen in the study and the respondents were found to be engaged in 10 types of occupations. The maximum number of respondents were still practicing agriculture but there share has decline from 45.9 per cent to 39.2 %. The next major occupation was labour (17 %) followed by animal husbandry (14.5 %).The share of respondents engaged as agricultural workers has declined from 15.0 % to 11.30 %.

The number of persons departing from old to new livelihoods is seen in case of agriculture (67 persons) followed by agricultural workers (37 persons) and handicraft (7 persons).The other occupations have shown and increase since the last decade. The growth in different occupations which has attracted the respondents are labour (40 persons), animal husbandry (25 persons), and other occupations (14 persons) as shown in Table 5.

The urban fringe has seen a decline in agriculture and agricultural practices over the last decade. The major reason is the low remunerations in the agriculture and the high demand of land in the urban fringe for non agricultural activities. The people have sold off their land at good prices and have changed their livelihoods. The

decline in agricultural workers is due to the loss of agricultural practice and hence the demand of agricultural labour has also declined. The village economy sustains the handicrafts and other domestic small scale local industries. The influence of city markets and the availability of new products to the respondents along with the increase in purchasing power have reduced the interest of the people towards the traditional handicraft items. This has resulted in decline in handicraft.

The marginal and small farmers who were dependent upon their land for their sustenance were left with no means of income after selling their land. Thus they started working as labour or industrial workers in the nearby city. Thus the maximum increase is seen in the labours over the last decade. The high demand of milk and meat in the city and proximity of urban fringe makes animal husbandry another emerging activity. People have turned towards keeping milch animals for daily milk production. They sell them to the nearby localities or shops. The high demand of milk is resulting in continuous increase in the prices of milk. Thus a large number of responded have shifted to this occupation during last decade. Another opportunity for the people in urban fringe is for getting different types of occupations in the city. These jobs may be seasonal or temporary. It includes rickshaw pulling, hawkers, shop attendant, driver, domestic help, and watchman etc.

9. Problems associated with urban fringe

The diversification of the livelihoods in the urban fringe is leading to different social, cultural, environmental and economic problems to the respondents. The primary survey reveals that most of the people find that the change in livelihood has resulted in many socio-cultural problems. The Table 6 reveals the major problems reported by the respondents of urban fringe in Aligarh city.

Tab. 6: Major problems in Urban Fringe Area of Aligarh City (2012).

S.No.	Problems	Respondents Reporting Problems		Rank
		Number	Percentage	
1	Improper Sanitation	813	81.3	1
2	Social Conflicts	754	75.4	2
3	Improper waste disposal	712	71.2	3
4	Water Contamination	657	65.7	4
5	Decline in Social Customs	567	56.7	5
6	Increase in Diseases	441	44.1	6
7	Unsatisfied with present employment	345	34.5	7
8	Decline in Social Status	245	24.5	8
9	Increase in Frustration	215	21.5	9
10	Decline in Saving	213	21.3	10

Source: Field Survey (2012).

The study shows that people in the urban fringe are experiencing social, cultural, economic and environmental problem. The urban fringe being a zone of transition has resulted in dynamic change in livelihoods and lifestyle of the people. The people of the urban fringe were mainly accustomed to rural lifestyles, village customs and traditions. The present socio-cultural scenario is totally different from that of the rural areas. Thus people are unable to adjust themselves to the changes in urban type of lifestyles and livelihoods.

The major problems pointed out by the respondents were improper sanitation (81.3 %), social conflicts (75.40 %) and improper waste disposal (71.20 %).These

problems are mainly due to change in lifestyle from rural to urban. The people living in the urban fringe also include some migrants from the other rural areas thus the social conflicts on petty issues occour more frequently. Another reason is lack of civic amenities and facilities in the urban fringe. The people living in the urban fringe also report water contamination (65.70 %), decline in social customs (56.70 %) and increase in diseases (44.10 %). The people who have changed their livelihoods are sometime not satisfied with their new employment and are prone to dissatisfaction and frustration. Some other respondents have also reported a economic loss from their change in livelihood. The reason may be low income or irregular employment opportunities due to more competition among the unemployed people.

10. Conclusion and Suggestions

The urban fringe is associated with the dynamics of livelihoods and lifestyle changes. The increasing demand of land for non agricultural use has raised the land price of the urban fringe. Thus people are selling their agricultural land and shifting from traditional low remunerative agricultural practices to new livelihoods promising better income and social status. The present scenario of the urban fringe reveals diversification of the livelihoods during the last decade. Thus people are shifting from agriculture and agricultural activities to non agricultural sectors. The change in livelihood and lifestyle has resulted in many social, cultural and economic problems to the people of the urban fringe. The people accustomed to rural environment and lifestyles find it difficult to adjust to new social customs and urban lifestyles. Some of them even find difficult to adjust themselves to their new employment. Thus there is a threat to agriculture, social traditions and environment of the urban fringe.

The present problems are associated with the loss of livelihood and social change experience by the respondents. The government should look into the land acquisitions projects and enable the land holders to get some means of livelihood and social adjustment for their sustainable development. The development of better marketing facilities and proper remuneration of the agricultural produce along with introduction of integrated farming system encompassing floriculture, livestock husbandry and vegetable cultivation along with the traditional crops will not only ensure economic security to the people but it will also preserve the agriculture and environment of the urban fringe.

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DYNAMICS AND DIVERSIFICATION OF LIVELIHOOD IN URBAN FRINGE OF ALIGARH CITY, U.P., INDIA

Summary

Urban fringe is a region of urban-rural interface, continuously moving outward in response to urban sprawl or expansion over the times. It is associated with the dynamics of livelihoods and lifestyle changes. Thus, socio economic transition and dynamic change in the livelihood pattern is experienced by the resident people. The increasing demand of land for non agricultural use has raised the land price of the urban fringe. Thus people are selling their agricultural land and shifting from traditional low remunerative agricultural practices to new livelihoods promising better income and social status. This has resulted in the decline of land resource used under various cropping systems. Further, declining agricultural land has led to loss of livelihoods to the rural people

The declining agricultural activity in the urban fringe has resulted in diversification and structural change in livelihoods. The exposure to urban lifestyle and mass media is causing mental transformation of youth in the urban fringe. The present scenario of the urban fringe reveals diversification of the livelihoods during the last decade. Thus people are shifting from agriculture and agricultural activities to non agricultural sectors. They are more inclined towards value added farming systems and non farm activities of secondary and tertiary sectors.The change in livelihood and lifestyle has resulted in many social, cultural and economic problems to the people of the urban fringe. The people accustomed to rural environment and lifestyles find it difficult to adjust to new social customs and urban lifestyles. Some of them even find difficult to adjust themselves to their new employment. Thus there is a threat to agriculture, social traditions and environment of the urban fringe.

The present study analyzes the impact of urban expansion upon the structural change in pattern of livelihood of people of various socio economic horizons and the diversification of farming systems in the urban fringe of a Aligarh, a north Indian city during last two decades. The study is based on primary data generated through field survey of five villages from urban fringe of the city. The study reveals expansion of the city at least three times since 1990. A large number of villages have been included in municipality area but rural economic activities like cropping and animal husbandry still exist in the form of urban vegetable and dairy farming operated by the local people and the immigrants from other parts of the district.

The urban fringe witnessed dynamism and diversification in sources of livelihood. The study reveals that only 20 per cent of surveyed people are engaged in agriculture. The other important source of livelihood are animal husbandry, agro-processing, retailing and allied services .This structural change in livelihood has resulted in social, economic and environmental instability. These problems are due to loss of livelihood and social change experience by the respondents. The government should look into the land acquisitions projects and enable the land holders to get some means of livelihood and social adjustment for their sustainable development. The development of better marketing facilities and proper remuneration of the agricultural produce along with introduction of integrated farming system encompassing floriculture, livestock husbandry and vegetable cultivation along with the traditional crops will not only ensure economic security to

the people but it will also preserve the agriculture and environment of the urban fringe.

STANOVANJSKO VARSTVO STAREJŠEGA PREBIVALSTVA V SLOVENIJI: DOMOVI ZA STAREJŠE IN LASTNIŠKO ZASEDENA STANOVANJA

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Izvleček

Stanovanjsko varstvo starejšega prebivalstva v Sloveniji: domovi za starejše in lastniško zasedena stanovanja

Zaradi staranja prebivalstva je problematika ustreznega stanovanjskega varstva prebivalstva za starejše vse bolj pereča. V Sloveniji je za starejše ljudi na voljo več oblik bivanj za starejše, med katerimi smo se v članku osredotočili na dve, ki sta v Sloveniji najbolj razširjeni, in sicer na domove za starejše in lastniško zasedena stanovanja. Predstavljene so njune značilnosti, kritično so analizirali problemi obeh oblik stanovanjskega varstva in podane so rešitve teh problemov. Članek temelji na analizi relevantne literature, statističnih podatkov in rezultatov znanstvenih raziskav o obravnavani temi. Skozi razpravo prinaša nova spoznanja o možnostih zagotavljanje primerne stopnje stanovanjskega varstva starejšega prebivalstva v Sloveniji v prihodnje.

Ključne besede

staranje prebivalstva, starejši ljudje, stanovanjsko varstvo, domovi za starejše, lastniško zasedena stanovanja

Abstract

Housing care of the elderly people in Slovenia: homes for the elderly and owner-occupied dwellings

Ageing of population raises many problems concerning adequate housing for the elderly. In Slovenia there are several residential types for the elderly and among them the article focuses on two, which are most widespread, homes for the elderly and owner-occupied dwellings. Their characteristics are presented, the problems are critically analyzed and the solutions for them are stated. The article is based on an analysis of relevant sources and scholarly literature, as well as results of scientific researches on this topic. Through its discussion the article reflects new ideas about the possibilities of providing an adequate level of housing care of the elderly people in Slovenia in the future.

Key words

Ageing population, elderly people, housing, housing care, homes for the elderly, owner-occupied dwellings

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1. Uvod

Stanovanje obsega številne značilnosti, tako fizične (velikost, opremljenost z infrastrukturo in podobno) kot tudi druge, težje merljive (lokacija, trajnost in varnost uporabe, zasebnost, premoženjska tveganja, prijateljske vezi v soseščini in podobno) (Mandič 1999). Po Harsmanu in Quigleyu (1991) ima zato stanovanje status najkomplesnejše dobrine, zaradi česar je nemogoče zajeti vse njegove pomene v odnosu do posameznika, ugotavlja Mandičeva (2011) in dodaja, da je na to opozoril že Marcuse (1987), ko je zapisal, da je »stanovanje več kot stanovanje« (Mandič 2011, 85). Stanovanje je »fizični in socialni prostor, ki ga posameznik obvladuje, v katerem izraža svojo osebno identiteto in zasebnost ter prostor, kjer se počuti varnega« (Šnajder 2010, 17). Kot takšnega stanovanje imenujemo dom. Odnos posameznika do stanovanja oziroma doma se s staranjem spreminja in v starosti postane stanovanjsko varstvo bistvenega pomena. V Sloveniji je za starejše ljudi na voljo več oblik bivališč (Ministrstvo ... 2007a): lastniško zasedena stanovanja (ang. owner-occupied housing), najemna stanovanja (ang. rented housing), oskrbovana stanovanja (ang. sheltered housing) in domovi za starejše (ang. homes for the elderly). Po definiciji Statističnega urada Republike Slovenije (2012) so lastniško zasedena stanovanja bivališča z gospodinjstvi, katerih je vsaj en član lastnik stanovanja. Najemnih stanovanj je več vrst: neprofitna, tržna, službena ali namenska (za starejše ljudi). Po registrskem popisu 2011 prevladujejo pri nas neprofitna najemna stanovanja (70 %), namenskih stanovanj za starejše ljudi (t. i. upokojenska stanovanja) pa je 3 %. Po Sendiju in drugih (2003) je namensko stanovanje za starejše ljudi načrtovano za potrebe starega človeka in je namenjeno za tiste starejše, ki želijo ostati samostojni, zmorejo živeti in voditi gospodinjstvo sami z občasno pomočjo na domu. Oskrbovana stanovanja so arhitekturno prilagojena za starejše ljudi z lastnim gospodinjstvom v večstanovanjski stavbi ali kakšni drugi obliki strnjene stavbe, ki je v urejenem in mirnem okolju, z dostopno prometna infrastruktura. V njih lahko dobijo pomoč določene ustanove 24 ur dnevno. Namenjena so starejšim, ki se sami ne morejo več v celoti oskrbovati ali negovati, še vedno pa lahko živijo razmeroma samostojno življenje. Pomembna lastnost oskrbovanih stanovanj torej je, da ohranjajo vse prednosti bivanja v lastnem domu, predvsem avtonomnost in zasebnost, obenem pa stanovalci koristijo storitve institucionalnega varstva (ker se zaradi tega počutijo varne se za oskrbovana stanovanja v strokovni literaturi uporablja tudi izraz varovana stanovanja) (Kerbler 2011a; Nepremičninski sklad pokojninskega in invalidskega zavarovanja 2012). Domovi za starejše so oblika institucionalnega varstva, namenjena starejšim od 65 let in drugim osebam s težavami, ki zaradi starosti, bolezni, osebnih stisk in drugih razlogov, ne morejo živeti sami. Storitve v domovih za starejše obsegajo vse oblike pomoči, s katerimi se upravičencem po zakonu nadomeščajo ali dopolnjujejo funkcije doma ali lastne družine, in sicer bivanje, organizirana prehrana, tehnična oskrba in zdravstveno varstvo (Cijan in Cijan 2003). Bivanje v domovih za starejše je organizirano tako, da zagotavlja posameznikom glede na njihove psihofizične sposobnosti čim večjo zasebnost, samostojnost, avtonomnost in neodvisnost (Ministrstvo ... 2005).

V članku se bomo osredotočili na dve obliki stanovanjskega varstva za starejše, ki sta v Sloveniji najbolj razširjeni – na domove za starejše in lastniško zasedena stanovanja. Pri obeh bomo predstavili njune značilnosti, kritično analizirali probleme obeh oblik stanovanjskega varstva in navedli možne rešitve zanje. V razpravi bomo opisali različne možnosti za implementacijo predlaganih rešitev za zagotavljanje primerne stopnje stanovanjskega varstva starejšega prebivalstva v Sloveniji v

prihodnje. Z metodološkega vidika temelji članek na analizi in kritični presoji pomembnejše znanstvene in strokovne literature, statističnih podatkov in rezultatov znanstvenih raziskav o obravnavani temi.

2. Domovi za starejše

Tradicija slovenskega domskega varstva je že stara, saj sega v 14. stoletje. Sprva je šlo je za »ubožnice« in »špitale, dobrodelne ustanove, ki so jih ustanavljali predvsem redovniki in pobožne bratovščine, na podeželju deloma grofje, v mestih pa meščanski stanovi (Kociper 2011). V času industrijske revolucije, ko se je zaradi razvoja medicine in izboljšanja higienskih razmer število prebivalstva povečalo, se je začelo ustanavljati vse več socialnih ustanov (Grdiša 2010). Večinoma je šlo za »hiralnice«. Pred drugo svetovno vojno je bilo pri nas 63 takšnih domov za starejše ljudi s 3.249 kapacitetami (Gašperović 2003). Po vojni so se na področju institucionalnega stanovanjskega varstva starejših pojavili številni problemi, saj je število starejših močno preseglo razpoložljive kapacitete, mnoge dotedanje socialne ustanove pa so se zaradi povečanja potreb po zdravniških posteljah preoblikovale v zdravstvene zavode. Lokalne oblasti so ta problem pogosto reševale z namestitvami domov za starejše v zasilno obnovljenih starih gradovih in samostanih, vojašnicah in drugih objektih (Medarda 2002). Domovi so bili negovalne narave in so zagotovili najenostavnejše oblike oskrbe. Bili so prostorsko utesnjeni, v sobah je bilo več postelj, nega pa je bila zaradi slabe tehnične opremljenosti omejena, bili pa so tudi na dislociranih lokacijah (Grdiša 2010). Predvojno stanje je bilo doseženo šele leta 1964 z 31 domovi, v katerih je bilo 3.100 namestitvenih zmogljivosti (Gašperović 2003). V šestdesetih letih so bili na področju stanovanjskega varstva narejeni prvi večji koraki. Ustanovljen je bil Inštitut za gerontologijo, ki je začel uvajati nov pristop k domovom za starejše ljudi, tako da so združili koncepta bolnice (sanatorija) in hotela (toplic) (Kociper 2011). V tem času je bil ustanovljen tudi Sklad Republiške skupnosti socialnega zavarovanja za reševanje stanovanjskih potreb upokojencev in invalidov, ki se je v začetku sedemdstih let preimenoval v Sklad za gradnjo stanovanj in domov za upokojence in je bil glavni vir sredstev za adaptacije, sanacije, dograditve in novogradnje domov za starejše. Sklad je nehal delovati v začetku devetdesetih let. Takrat je bilo na voljo 7.033 namestitvenih kapacitet v 51 domovih za starejše (Gašperović 2003). Šlo je za domove za starejše kot javne socialnovarstvene zavode, ki opravljajo dejavnost socialnega varstva nepridobitno, kot javno službo. S sprejetjem zakona o socialnem varstvu leta 1992 (Ur. l. RS, št. 54/1992) pa lahko zavodsko varstvo opravljajo tudi zasebniki, in sicer na podlagi koncesije, ki jo na javnem razpisu podeli pristojno ministrstvo. Število domov za starejše se je tako v zadnjih dveh desetletjih zelo povečalo. Po podatkih Skupnosti socialnih zavodov Slovenije (2012) je bilo ob začetku leta 2012 je bilo v Sloveniji na voljo 18.030 mest v 92 domovih na 109 lokacijah, in sicer v javnih domovih za starejše 13.816 mest v 56 zavodih na 71 lokacijah in v zasebnih domovih za starejše 4.214 mest pri 36 izvajalcih s koncesijo na 36 lokacijah. Po večini gre za domove, ki nudijo ustrezno materialno udobje, zdravstveno nego, socialno mrežo in možnosti, da varovanci preživijo svoj prosti čas aktivno in ustvarjalno, ter še nekatere druge vrste oskrbe, zaradi česar je torej za telesno in (delno) psihično človeško razsežnost razmeroma dobro poskrbljeno. Za domove je značilna vzdolžna tlorisna zasnova z dolgim centralnim hodnikom in obojestransko razporeditvijo večposteljnih sob. Večina domov ima centralno skupno jedilnico, nekateri novejši domovi pa že imajo manjše jedilnice in dnevne prostore po oddelkih oziroma etažah (Kociper 2011). Vsi domovi so odprtega tipa, zasnovani so kombinirano, in sicer tako, da je del namenjen starejšim z resnimi zdravstvenimi

težavami, ki potrebujejo redno zdravniško oskrbo, kontrolo in nego, v drugem, stanovanjskem delu pa prebivajo starejši, ki so relativno samostojni. Velikost domov oz. njihova kapaciteta je različna. Manjše bivalne enote so »prijaznejše« starejšemu človeku, življenje v njih pa bolj pristno in domače, v primerjavi z velikimi domskimi institucijami, katerih videz spominja na bolnišnične zavode (Slonep 2012). Stroka ugotavlja, da so v teh domovih za starejše mnoge človeške razsežnosti (socialna, duhovna, eksistencialna in razvojna) pogosto zapostavljene (Ramovš 2008). V zadnjem času nekateri domovi za starejše, zlasti tisti, ki so bili zgrajeni v zadnjem obdobju, zato že uvajajo nekatere sodobnejše koncepte (Imperl in Ramovš 2010). Gre za t. i. koncept četrte generacije domov za starejše, ki sledijo potrebam po domačnosti in se zgledujejo po življenju v družini. Osnova doma je gospodinjska skupina, v kateri biva največ dvanajst ljudi. Celotna ustanova je sestavljena iz poljubnega števila gospodinjskih skupin, ki so na isti lokaciji, lahko pa so raztresene po ulicah, soseskah ali zaselkih, bistveno je, da locirani v lokalnem okolju ljudi, ki so vključeni v skupino, torej čim bliže njihovega doma (Ministrstvo … 2007b). Funkcionalno jedro skupine je prostoren dnevni prostor z veliko skupno kuhinjo. V skupini redno delajo samo hišne gospodinje, ki se menjajo, druge specialistične storitve pa zagotavljajo zunanje strokovne službe po potrebi. Bistveno je, da člani skupine po svojih močeh in željah sodelujejo pri pripravi hrani in drugih vsakdanjih gospodinjskih opravilih (Kociper 2011). V takšnih skupinah torej ni več v ospredju nega, ampak gre za novo obliko pomoči, pri kateri ljudje, ki potrebujejo nego, v večji meri sami odločajo o svojem življenju (Grdiša 2010). Ramovš (2008) govori o psihosocialnem konceptu, ki skuša uresničevati človekove potrebe na treh nivojih: intimnost v individualni sobi, pripadnost majhni skupini ljudi s sodelovanjem pri gospodinjskih opravilih v skupni kuhinji in vpetost v socialne mreže širše skupnosti in servisno koriščenje strokovnih uslug od zunaj.

V 2012 je domsko varstvo zajelo okoli 6,5 % starejših od 65 let, kar presega strateške usmeritve, ki predvidevajo 5-odstotni domski oskrbi starejših (Osterman 2012). Trenutno stanje torej ne nakazuje pomanjkanje kapacitet, vendar pa se slovenski domovi za starejše se namreč vse bolj soočajo z vrsto težav, ki so posledica togosti politike in neizvajanja nobenih ukrepov (Kolmančič 2010). Prva velika težava je neskladno regionalno razmerje kapacitet in potreb (glej Kerbler 2011b). Relativno dolge čakalne vrste so predvsem v večjih urbanih središčih v osrednjeslovenski, gorenjski in podravski in celjski regiji. Najslabše razmerje med povpraševanjem in kapacitetami je v Mestni občini Ljubljana, marsikje drugje je povpraševanje zmerno ali pa presežka prosilcev ni oziroma je celo preveliko število razpoložljivih kapacitet, na primer v Severovzhodni Sloveniji (Mlakar in Vošnjak 2010). Kot ugotavlja Koprivnikar (2009, 10–11) se zato »lahko zgodi, da bomo zaradi neuravnoteženosti kapacitet, ki bodo na voljo na posameznih področjih, imeli državne zavode, ki bodo negativno poslovali in zasebne izvajalce, ki ne bodo več zmogli obveznosti do svojih virov, iz katerih so zgradili te zavode«. Druga velika težava je večje število zakonov in togost predpisov, ki utesnjuje avtonomijo, upravljavsko sposobnost, ustrezno kadrovanje in racionalno poslovanje zavodov, zlasti zasebnih, ki so enako kot javni domovi za starejše del javnega sektorja in opravljajo javno službo. Ob tem pomenijo veliko težavo tudi nezadostni viri financiranja, zaradi česar so zavodi pogosto znajdejo v situaciji, da so komajda rentabilni (Koprivnikar 2009; Kolmančič 2010). Najbolj prizadeti so zlasti zasebni domovi za starejše, ki imajo ob številnih zakonskih predpisih in pogojih tudi zelo velike obveznosti do investitorja in bank, zato morajo v ceno vključiti tudi strošek investiciji. S tem so v primerjavi z javnimi domovi za starejše dražji in s tem manj konkurenčni, čeprav opravljajo enako vrsto dela, kot javni domov za starejše. Po

podatkih Skupnosti socialnih zavodov Slovenije (2012) je bila sredi v javnih domovih za starejše leta 2012 cena za najmanj zahtevno oskrbo 17,57 €/dan, v zasebnih pa 21,88 €/dan, povprečna cena različnih oblik oskrbe pa je dražja za 4,49 €/dan, ker v enem mesecu nanese okoli 135 €. Zasebne organizacije se zato težje odločijo za vstop na področje stanovanjskega varstva za starejše (Koprivnikar 2009; Mlakar in Vošnjak 2010). Nadaljnja težava je neustrezna cenovna politika na področju dolgotrajne oskrbe starejšega prebivalstva, zaradi česar se v Sloveniji bolj splača bivati v domovih za starejše, kot prejemati pomoč na domu. Razloga za to sta predvsem dva: po eni strani je obseg storitev v domovih za starejše bistveno večji kot v okviru pomoči na domu oziroma v domačem okolju, kjer integrirana zdravstvena nega in socialna oskrba ni omogočena, po drugi strani pa je v bivanje v domu bistveno cenejše (Kolmančič 2010). Ekonomske cene ene ure pomoči na domu se zaradi različne višine subvencij med občinami sicer razlikujejo, vendar v povprečju je cena približno enaka celodnevni oskrbi v javnih domovih za starejše. Zaradi gospodarske krize in vladnih ukrepov je pričakovati, da se bo ta storitev podražila oziroma bo višina subvencij s strani občin nižja (Slovenska tiskovna agencija 2012; Zveza potrošnikov Slovenije 2012; Žibret 2012).

Možnosti za rešitev opisanih težav domov za starejše je več. Kolmančič (2010) navaja nekaj takšnih ukrepov, za katere meni, da naj bi bili učinkoviti in bi zadovoljili vse déležnike, predvsem pa izvajalce in državo. Za odpravo regionalnih neskladij glede potreb in kapacitet v domovih za starejše bi bilo treba povečati kapacitete v večjih urbanih središčih, zlasti v Mestni občini Ljubljana, kot ugotavlja Koprivnikar (2009, 11): »če torej danes rešimo problem kapacitet v Ljubljani in njeni okolici, smo posledično rešili celoten problem ponudbe institucionalnega varstva v celotni Sloveniji, saj se pomanjkanje kapacitet v Ljubljani projicira na ostalo Slovenijo«. V regijah, v katerih je povpraševanje po namestitvah v domovih za starejše manjša, bi morala država povečati vlogo in dostopnost do storitev pomoči na domu. Za povečanje avtonomnosti in bolj fleksibilno delovanje javnih in zasebnih domov za starejše bi bilo treba omogočiti vsem enake možnosti za poslovanje. »Ni sprejemljivo, da obstajajo razlike med zasebnimi in javnimi izvajalci, ki izvajajo primerljivo storitev, v isti mreži javne službe, za iste uporabnike storitev, pod enakimi kadrovskimi, strokovnimi pogoji v okviru istih nadzorov, in da je razlika med tema dvema storitvama samo zato, ker je nekdo v državni, drugi pa zasebni lasti. Prav tako ni sprejemljivo, da mora uporabnik v nekem domu zato, ker je v zasebni lasti, plačevati višjo ceno storitve, v nekem drugem domu pa nižjo najemnino samo zato, ker je v državni lasti – oba namreč delujeta v isti javni mreži«, meni Koprivnikar (2009, 13). Primeren ukrep za rešitev težave je predlagal Bohinc (2007), po katerem bi bilo treba javne zavode pravno statusno ločiti na državne in samostojne. Slednji bi bili profitni, prihodke bi si zagotavljali s prodajo storitev na trgu in si s tem zagotovili finančno samostojnost, zaposleni pa bi bili izključeni iz sistema plač v javnem sektorju. Zasebni domovi za starejše bi tako med sabo konkurirali, s tem dvigovali kakovost storitev, ter tako vplivali na spremembe cene za stanovanjsko varstvo v okviru domske oskrbe. Po Koprivnikarju (2009) bi morali biti s statusnim preoblikovanjem izvajalci odgovorni neposredno uporabnikom storitev, zadovoljstvo uporabnikov pa bi morala postati kriterij za ugotavljanje uspešnosti nekega subjekta, ki deluje na tem področju. V času priprave tega prispevka, je že prišlo do prvih primerov statusnega preoblikovanja javnega zavoda v kapitalsko organizacijo. Za rešitev neustrezne cenovne politike bi bila najbolj primerno, povišanje cen za stanovanjsko varstvo v domovih za starejše. Če bi se namreč odpravila nesorazmerja v višini, načinih in virih financiranja oz. sofinanciranja različnih socialnovarstvenih storitev v domovih za starejše, kot

predlagajo nekateri strokovnjaki (glej Koprivnik 2009), bi po Kolmančiču (2010) to vplivalo na lažjo cenovni dostopnosti bivanja in oskrbe v domovih za starejše, s tem pa na še večje pritiske na kapacitete v domovih za starejše. V primeru povišanja cen, bi se po njegovem zgodilo ravno nasprotno, pritiski bi bili (vsaj na krajši rok) manjši, čakalne dobe bi se skrajšale, povečalo pa bi se zanimanje za druge oblike bivanja in socialnovarstvenih storitev v okviru njih. Primerna rešitev bi bila po njegovem tudi povečanje cenovne diferenciacije med javnimi in zasebnimi domovi za starejše, kar bi vodilo do diferenciacije bivanja v domovih za starejše glede na dohodkovni položaj uporabnika. Javni domovi za starejše bi bili namenjeni za bivanje in oskrbo ljudi iz nižjih dohodkovnih razredov, zasebni zavodi pa za ljudi iz srednjega in višjega dohodkovnega razreda. »S te bi se zagotavljala dolgoročna finančna vzdržnost sistema dolgotrajne oskrbe, ki je eden izmed treh ciljev nacionalne politike« (prav tam, 23).

3. Lastniško zasedena stanovanja

Za Slovenijo je značilna visoka lastniška zasedenost stanovanj. Po osamosvojitvi smo namreč izvedli zelo radikalno privatizacijo nekdanjih javnih najemnih stanovanj in, kot pravi Stephenson (2003) postali »superlastniki stanovanj«. Po podatkih registrskega popisa 2011 je bilo lastniško zasedenih stanovanj 77 %, naseljena stanovanja z drugim tipom lastništva ali t. i. uporabniška stanovanja so predstavljala 14 % (stanovanja, v katerih nihče od stanovalcev, ki stanovanje uporabljajo, ni lastnik, hkrati pa stanovanje ni najemno), le 9 % je bilo najemnih stanovanj (SURS, 2012). Lastništvo stanovanj pa se odraža tudi pri starejših prebivalcih v Sloveniji. Kot navaja Srna Mandič (2011) so glede na podatke Evropske raziskave o kakovosti življenja (EQLS) iz leta 2007 Slovenci, starejši od 65 let, lastniki stanovanj kar v 96 %. Ugotavlja tudi, da se s starostjo, zlasti nad 80 let, delež lastnikov stanovanj celo poveča, kar je glede na nizek delež najemnih stanovanj in pomanjkanje pestrosti različnih oblik stanovanjskega varstva povsem razumljivo (glej Kerbler, 2011a). Razumevanje je še popolnejše, če k temu dodamo še spoznanja o razmišljanjih in percepcijah starejših glede svojega doma. Po Heywoodu in drugih (2002) povezujejo starejši ljudje stanovanje/dom s številnimi spomini in identiteto, po Anni Dupuis in Davidu Thornsu (1996) s tem, kaj so v življenju dosegli, po Cloughu in drugih (2004) pa tudi z mrežo socialnih vezi, ki so jih stkali v okolju, v katerem prebivajo. Zaradi tega želijo starejši v svojem domačem okolju ostati čim dlje časa. Bivanje v lastnem domu ima številne pozitivnih učinkov, zlasti na dobro počutje in psihofizično kondicijo starejših ljudi. Kot navajajo Maisel in drugi (2008) so študije pokazale, da samostojno življenje spodbuja uspešno staranje z izboljšanjem zdravja, življenjsko zadovoljstvo in povečuje samozavest starejših, kar lahko časovno odloži prehod starejših v institucionalno obliko bivanja. Staranje domá (ang. ageing at home) oziroma staranje v/na kraju bivanja (ang. ageing in place) je zato najbolj zaželena oblika stanovanjskega varstva oziroma bivanja starejših. To potrjujejo tudi številne raziskave, med katerimi izstopa predvsem anketa, ki jo je leta 2005 opravilo ameriško združenje za upokojence (glej Salomon 2010). Po njihovih podatkih je 89 % ljudi, starejših od 50 let izjavilo, da želijo ostati v svojih domovih kolikor je mogoče ter dolgo ohraniti svojo neodvisnost. Še podrobnejši raziskava iz leta 2000 je pokazala, da se delež ljudi, ki imajo takšne želje, s starostjo povečujejo (American Association of Retired People 2000). V svojih stanovanjih si želi ostati tako dolgo kot bom mogoče 75 % ljudi, starih med 45 in 54 let, 83 % tistih, ki so stari med 55 in 64 let, 92 % starostnikov med 65. in 74. letom in kar 95 % starih 75 ali več let. Če ne bi bili več zmožni živeti samostojno, si po Salomonu (2010)

starejši še vedno zelo želijo ostati in bivati v svoji skupnosti oziroma soseski, znanem bivalnem in socialnem okolju. Po raziskavi, na katero se sklicuje, je takšnih 85 %. Socialne povezave s prijatelji in sosedi, poznavanje lokalnih možnosti za prijetno bivanje, bližina do storitev so med številnimi stvarmi, ki bi jih starejši »izgubili«, če bi se morali preseliti. Preselitev drugam namreč starejši pogosto doživljajo kot travmatično izkušnjo (glej Kerbler 2011b). O preselitvah starejši zato niti ne želijo razmišljati. Po Cloughu (2004) so tisti, ki bi se odločili za preselitev, večinoma v zgodnjih zrelih letih, saj, kot ugotavlja, začnemo ljudje o bivanju v prihodnosti (ponovno) razmišljati, ko se upokojimo. Takrat je tudi največja možnost za preselitev, s staranjem se ta želja močno zmanjša. To potrjuje tudi telefonsko anketiranje, ki so ga opravili Sendi in drugi (2003). Ugotovili so, da je najvišji delež tistih, ki bi se preselili, v starostni strukturi 50–55 let (27 %), nato pa z vsako naslednjo starostno skupino ta delež pada. Tako je bil delež starejših od 80 let, ki so razmišljali o preselitvi le še 8-odstoten. V splošnem je o preselitvi razmišljala manj kot petina starostnikov v Sloveniji (18 %).

Preference starejših po bivanju v lastnem domu pa nimajo le pozitivnih strani, prinašajo tudi številne ovire. Glavni razlogi za preselitev, ki so jih starejši v raziskavi Sendija in drugih (2003) navedli, so neprimerno stanovanje, otežen dostopa do stanovanja in neprimerna (zanemarjena) okolica, predvsem v urbanih okoljih, oziroma oddaljenosti od javnih storitev, predvsem na podeželju. Prva od ovir je tako neustrezna ureditev bivališča. Predvsem gre za arhitekturne ovire, kot na primer stopnice, neustrezna kopalniška oprema – na primer kopalne kadi namesto kabin za tuširanje, odsotnost držal –, pragovi, drseča tla, težka vrata, preozki prehodi, previsoko pohištvo in delovne površine ter podobno, še zlasti v hišah pa je, kot ugotavlja Salomon (2010), najpogostejša težava odsotnost kopalnice v glavnem bivalnem prostoru. V anketi, ki so jo opravili Sendi in drugi (2003), je le 15 % starejših menilo, da njihova bivališča ne potrebujejo adaptacije. Po Mariji Vovk (1998) morajo biti bivališča za starejše ljudi funkcionalna, varna in ne prevelika. Po njenem so priporočljive velikosti bivališč za starejše sledeče: 40 m^2 za enega človeka, 60 m^2 za dve osebi in 80 m^2 za tri ljudi. V Sloveniji so na splošno bivališča dokaj velika. Po podatkih registrskega popisa leta 2011 je bila povprečna velikost naseljenega stanovanja je bila 82 m^2 (Statistični urad Republike Slovenije 2012). Iz tega lahko sklepamo, da živijo tudi starejši ljudje v dokaj velikih bivališčih. Kot ugotavljajo Sendi in drugi (2003) so velikost bivališč starejših ljudi s starostjo sicer zmanjšuje – 34 % anketiranih v starosti od 50–55 let je živelo na več kot 90 m^2, v starosti nad 80 let je bilo ta delež 13-odstoten, ker je še vedno precej –, vendar pa je bilo kar 38 % lastnikov bivališč (gre za hiše), ki so bila večja od 90 m^2. Druga težava staranja na/v kraju bivanja je lahko neustrezna lokacija bivališča. Zaradi zmanjšanih psihofizičnih sposobnosti starejših ljudi in ker se soseske skozi daljše časovno obdobje spremenijo, postanejo nekatere okolja neprimerna za bivanje, predvsem iz zdravstvenega in psihosocialnega vidika. Velik problem pomeni predvsem oddaljenost storitev (zdravstvena oskrba, trgovine, knjižnica, pošta in drugo) oziroma vezanost teh storitev na avtomobilski promet oziroma v zadnjih dveh desetletjih v urbanih središčih predvsem na nakupovalna središča. Poleg tega ljudje s staranjem postopoma izgubijo svoje prijatelje v domačem okolju (ali zaradi preselitve ali smrti), s katerimi so se družili. Še posebej je to problem za ljudi, ki so stari. Sendi in drugi (2003) so namreč ugotovili, da si ljudje s staranjem vse bolj želijo, da bi bili v bližini njihovih bivališč ljudje iste starosti. V urbanih okoljih je velik problem tudi promet – tako mirujoči promet v stanovanjskih soseskah, kakor tudi promet na splošno. Mnogi starejši ljudje se zato v takšnem (vse bolj prometnem) okolju pogosto počutijo neugodno, jih je strah, ne vedo, kako naj ob določenih

situacijah kot udeleženci v prometu odreagirajo, ob manj ugodnih vremenskih stanjih pa se pogosto tudi ne počutijo dobro (jih duši in podobno). Starejši ljudi zato pogosto postanejo v svojih soseskah vse bolj izolirani, pogosteje ostajajo v svojih bivališčih in so glede opravljanja storitev odvisni od pomoči drugih (prevoz, nakupovanje in podobno). Tretja velika težava povezana z bivanjem starejših v lastnem bivališču so stroški vzdrževanja nepremičnine (vključeni so tekoči stroški, letni stroški – zavarovanje, davčne obveznosti in podobno – ter drugi stroški vzdrževanja bivališča), zlasti za tiste z nižjimi dohodki. Salomon (2008) poroča, da porabi ena tretjina starejših med 54. in 60. letom v povprečju okoli 30 % mesečnih prihodkov za vzdrževanje svojega doma, tisti, ki so starejši od 85 let pa celo več kot polovico. Poleg tega starejši ljudje po večini živijo v starejših bivališčih, kar je posledica njihove nepripravljenosti za preselitve. Stroški vzdrževanja s starostjo nepremičnin običajno hitro rastejo, zato so predvsem lastniki starejših nepremičnin soočeni s tveganjem naraščajočih stroškov vzdrževanja. Marsikateri starostnik, zlasti tisti, ki živijo sami ali v upokojenskih gospodinjstvih, tako le komajda pokriva tekoče stroške in letne davke (nadomestilo za uporabo stavbnega zemljišča, davek na premoženje), za druge obveznosti, ki so povezane z vzdrževanjem nepremičnine pa pogosto nimajo dovolj prihrankov, kar ima negativni vpliv na vrednost nepremičnine.

Kljub opisanim težavam ima v Sloveniji lastniško bivališče še vedno zelo pomembno vlogo, kar kažejo rezultati telefonske raziskave, ki so jo opravili Sendi in drugi (2003). Večina tistih, ki bi se preselili, so namreč večinoma živeli v najemniških stanovanjih. Delež tistih, ki so živeli v lastniških bivališčih in bi se preselili, je bil precej nižji. Kar 78 % tistih, ki so razmišljali o preselitvi, bi se preselili v drugo lastniško bivališče, od tega 43 % v drugo lastniško hišo in 35 % v drugo lastniško stanovanje. Poleg čustvene navezanosti na lasten dom in okolico pomeni namreč lastništvo bivališča tudi obliko premoženja, še zlasti v Sloveniji, ker je po Lidiji Apohal Vučkovič in drugih (2009) to premoženje večinoma hipotekarno neobremenjeno. Kot navaja Srna Mandič (2011) je bila Svetovna banka prva, ki je v svoji študiji iz leta 1994 opozorila, da je lahko lastniško stanovanje t. i. »četrti pokojninski steber« in pomeni zagotavljanje varnosti na stara leta. Po Modiglianijevi teorija življenjskega cikla potrošnje in varčevanja gospodinjstva (ang. Modigliani's life-cycle theory of consumption and savings) namreč posameznik v času aktivne dobe življenja optimizira svoje premoženje, v tretjem obdobju svojega življenja pa bo privarčevana sredstva trošil oziroma porabil za kritje morebitne vrzeli med dohodki (Deaton 2005; Dol 2009). Po Andreji Cirman (2000) daje teorija dobro izhodišče za različne instrumente konverzije nepremičninskega premoženja v dohodek. To pomeni, da je lastniško bivališče predmet, v katerega se skozi aktivno dobo življenja shranjuje, nato pa se pretvori v dohodek, iz katerega se jemlje (Mandič 2011). Obstaja več instrumentov nepremičninskega kapitala v dohodek. Po Dolingu in Ronaldu (2010) je sta eni od takšnih oblik prodaja lastnega bivališča in nakup manjšega, cenejšega ali pa prodaja in prehod iz lastniškega v najemniško ali oskrbno stanovanje. V obeh primerih se po Srni Mandič (2011) s prodajo sprosti nekaj sredstev za prosto porabo, zlasti za zapolnitev pokojninske vrzeli. Slabost tega instrumenta konverzije nepremičnine ta, da se sprosti le del sredstev iz nepremičnine, saj velik del kapitala še vedno ostane v novi nepremičnini, pri najemu pa se del premoženje »izgubi«. Še posebej pa, da mora lastnik zapustiti svoje dosedanje bivališče, čemur pa so starejši, kot smo že ugotavljali, zelo nenaklonjeni (to tudi zmanjšuje praktično uporabno tega instrumenta). Kot navaja Anita Jesih (2010), obstajajo zato še druge oblike instrumentov konverzije nepremičnin, pri katerih lahko starejši ostanejo v svojih lastniških bivališčih: prodajna pogodba z

odloženim prenosom lastninske pravice (ang. life estate), prodaja ob hkratnem povratnem najemu (ang. sale and leaseback) in obratno hipotekarno posojilo (ang. reverse mortage ali reverse annuity mortage). V prvem primeru gre za obliko konverzije, pri kateri posameznik nepremičnino proda, vendar pa preide lastninska pravica s prodajalca na kupca šele ob smrti prodajalca. Po Andreji Cirman in Nadjuši Koželj (2003) je prednost tega instrumenta, da prodajalec nad nepremičnino ohrani lastninsko pravico, obenem pa prejme tudi nadomestilo za prenos te pravice na kupca potem, ko umre. Slabost je po njunem predvsem ta, da se kupnina izplača v enem znesku, zato mora prejemnik dobro premisliti, kako jo bo naložil, da bo lahko iz teh sredstev postopoma črpal denar v obliki rente. Za starejšega človeka je ta problem lahko zelo obremenjujoče. Pri drugi obliki instrumenta konverzije nepremičnin prodajalec svojo nepremičnino proda in obenem sklene s kupcem za isto nepremičnino najemno pogodbo za določen ali nedoločen čas, z možnostjo obnovitve najemnega razmerja. Kot navajata omenjeni avtorici so za prodajalca prednosti tega instrumenta predvsem takojšen priliv denarja v obliki začetnega pologa, stalen pritok denarja kot razlika med prejetim obrokom za odplačilo hipotekarnega posojila in mesečnim obrokom najemnine, izognitev nadaljnjim stroškom vzdrževanja bivališča in davčnimi obveznostmi in (kot najpomembnejše) pravica do nadaljnjega bivanja v »svojem« domu. Slabost, ki jo avtorici navajata, je predvsem ta, da je število tistih, ki bi bili pripravljeni odkupiti nepremičnino na takšen način, relativno malo. Najpogosteje so to sorodniki, zlasti družinski člani, saj se znotraj družine lažje uskladijo različne želje in interesi. Obratno hipotekarno posojilo kot tretja oblika instrumenta konverzije nepremičnine je posojilo, ki je zavarovano z nepremičnino tistega, ki najema posojilo. Instrument je namenjena starostnikom, ki jim primanjkuje tekočih likvidnih sredstev. V Združenih državah Amerike, kjer je ta oblika pravno dovoljena, je namenjena starejšim od 62 let. Kot ugotavljata avtorici, je bistvo te vrste posojil v te, da se zadolženost posojilojemalca v času trajanja posojilnega razmerja povečuje na račun zmanjševanja premoženja nepremičnine. Lastnik zastavljene nepremičnine, lahko od posojilodajalca prejme enega ali kombinacijo od sledečih plačilnih načinov: enoten pavšalni znesek v gotovini, redna mesečna izplačila ali kreditno linijo, ki omogoča nenamensko koriščenje odobrene prekoračitve sredstev na transakcijskem računu. Posojilojemalec se poplača ob zapadlosti posojila, torej takrat, ko preneha uporabljati zastavljeno nepremičnino kot svoje bivališče (ob smrti, prodaji, selitvi). Posojilodajalec takrat hipoteko unovči in dolg posojilojemalca poravna s prodajo nepremičnine, preostanek pa vrne posojilojemalcu ali njegovim dedičem, če je umrl. Tudi pri tem instrumentu je prednost ta, da lahko starejši človek v svojem domu ostane in živi v njem kolikor se le da dolgo, tudi do smrti. Kot ugotavlja Poplatnik (2012) je v Sloveniji trg instrumentov konverzij nepremičnin dokaj nerazvit. Od omenjenih instrumentov je pri nas še najbolj razširjena oblika konverzije prodaja nepremičnine in nakup manjše, poznamo še prodajo z odloženim prenosom lastninske pravice in prodajo ob hkratnem povratnem najemu oziroma predaja nepremičnine v zameno za dosmrtno preživljanje, ker je najpogostejše znotraj ožjih družinskih članov. Najuspešnejša pri izvedbo instrumenta konverzije je Mestna občina Ljubljana, ki ponuja možnost nakupa bivališča v zameno za dosmrtni najem in izplačilom doživljenjske mesečne rente ter možnost nakupa bivališča v zameno za prehod v občinsko neprofitno ali oskrbovano stanovanje. Razlogov za majhno povpraševanje po instrumentih konverzije je več. Gre predvsem za slabo poznavanje instrumentov, slaba davčna urejenost, visoki stroški odobritve, pa tudi zato ker je pokojninski sistem dokaj dobro urejen. Poleg tega je za Slovenijo značilno, da so ljudje čustveno navezani na nepremičnino, nepremičnina jim predstavlja največjo naložbo v življenju, zato starejši svoja stanovanja namenijo

predvsem otrokom ali vnukom (Cirman 2000). Po Dolingu (2010) starejši pogosto tudi nimajo zaupanja v to, da so tovrstne naložbe in tveganja varne, še zlasti v negotovih gospodarskih razmerah in krizi na trgu nepremičnin.

4. Razprava in sklep

Demografske spremembe in tudi finančna kriza bodo vse bolj vplivali na javnofinančno vzdržnost in posledično na stanovanjsko oskrbe starejših. Premalo različnih oblik bivanja za starejše in drugih instrumentov povezanih s tem, odsotnost raznolikosti storitev oskrbe za starejše in vse večje povpraševanje po institucionalnih oblikah bivanja (zlasti po bivanju v domovih za starejše) bodo pri nas začeli sprožati vse resnejše probleme. Kot navaja Osterman (2012) se to, na primer, že pozna v zdravstveni blagajni, iz katere se financira osnovno zdravstveno varstvo v domovih za starejše, saj je zdravstvena zavarovalnica z letošnjim letom začela zavračati podpisovanje takih pogodb. Problem stanovanjske oskrbe bo v prihodnje še toliko bolj pereče, saj lahko pričakujemo, da bo prišlo do korenite reforme pokojninskega sistema. To je še posebej zaskrbljujoče, saj je raziskava Evropske komisije (2007) pokazala, da si kar 58 % ljudi v Sloveniji bivanja v domovih za starejše ne more privoščiti. Že sedaj je namreč razmerje med starostno neto pokojnino in neto plačo (ang. gross replacement rate) alarmantno, saj podatki Zavoda za pokojninsko in invalidsko zavarovanje Slovenije (2012) kažejo, da znaša 62 % (povprečna starostna pokojnina = 619 evrov, povprečno neto plača = 998 evrov), leta 2000 pa je bil ta delež še 75-odstoten, po napovedih Evropske komisije (2006) pa se bo do leta 2050 to razmerje zmanjšalo na 39 %. Velik pomen bo zato v prihodnje imela razširitev instrumentov konverzije nepremičnin v dohodek, ki bo omogočal starejšim, da ostanejo v svojem domu čim dlje časa in si zagotovijo dodatni dohodek za preživetje, obenem pa bi lahko pokrili manjkajoče stroške s prehodom v institucionalno oskrbo. K vzpostavitvi instrumentov bo morala veliko prispevati vlada, zlasti z zagotovitvijo ustrezne zakonodaje in nadzora, banke in zavarovalnice, ki bodo omogočile dostopnost ustreznega stanovanjskega in hipotekarnega trga. Nedavna evropska raziskava (glej Evropska komisija 2007) je namreč (presenetljivo) pokazala, da bi bili Slovenci pripravljeni dati nepremičnine v konverzijo v večjem obsegu, kot smo doslej domnevali. Kar 52 % anketiranih bi namreč stanovanjsko premoženje kompenzirali za poplačilo storitev oskrbe v domovih za starejše. To je Slovenijo uvrstilo v sam vrh med drugimi evropskimi državami, takoj za Hrvaško in Turčijo – v drugih državah je bil ta delež nižji od 35 %. Nadaljnji vir za zagotavljanje ustreznega stanovanjskega varstva v prihodnje bodo zagotovo družinski transferji. Po Sambtu (2009) je pri nas delež družinskih transferjev za starejše v primerjavi z transferji s strani države še vedno dokaj skromen, vendar kot ugotavlja Srna Mandič (2011) je za Slovenijo značilno, da ima ožje sorodstvo, podobno kot v južnoevropskih državah, pomembno vlogo pri skrbi za starejše, pri čemer je tudi delitev stroškov za stanovanjsko varstvo stvar družine, predvsem otrok, zlasti v povezavi z dedovanjem nepremičnine starejšega družinskega člana. Relativno visoko stopnjo medgeneracijske povezanosti pri nas potrjujejo podatki Evropske komisije (2007), po katerih se je s plačevanjem storitev oskrbe za svoje starše strinjalo kar 60 % anketiranih. Vendar pa bo le finančna pomoč družinskih članov pri oskrbi starejših premalo, potreben je tudi čas, ki ga mora družina posvetiti starejšim družinskim članom. Po podatkih raziskave Seniorwatch namreč nudi več kot 80 % starejšim pomoč pri dnevnih aktivnostih in opravilih eden od članov njihove družine (Evropska komisija 2008). Po mnenju Ojel-Jaramilla in Cañasa (2006) se nanaša to predvsem na žensko in njeno vlogo v družini, ki pa se je v sodobni družbi v primerjavi s tradicionalno v marsičem

spremenila. Sodobni ritem in način življenja namreč vedno bolj omejujeta možnosti za družinsko in domačo oskrbo starejših družinskih članov, kar je (poleg staranja prebivalstva) še dodaten razlog, da je/bo pritisk po njihovi namestitvi v domove za starejše vse večji in dejstvo, da se v želji starejših po bivanju in staranju v svojem domu »veča delež starih ljudi, ki živijo sami ali skupaj z drugim starim človekom« (Ministrstvo ... 2007a, 9). Po Ostermanu (2012) živi v Sloveniji samih okoli 30 % starejših ljudi. Prednostna naloga slovenske politike v prihodnje je zato selitvev storitev oskrbe v domača okolja starejših ljudi, kar pomeni izboljšanje in razširitev mreže pomoči na domu in oskrba na daljavo (glej Kerbler 2011b). To je uresničljivo z vpeljavo novih načinov in modelov izvajanja oskrbe, s spremembo cenovne politike oskrbe (na domu) in ustrezna prilagoditvijo bivališč starejših ljudi – gre za arhitekturne prilagoditve in vgradnjo nove infrastrukturne opreme, ki temelji na informacijsko-komunikacijskih tehnologijah. Za adaptacijo bivališč starejših bi morala država omogočiti najem ugodnih kreditov in po zgledu Nemčije in Velike Britanije vzpostaviti mrežo svetovalnic za prilagajanje stanovanj. Kot ugotavljata Kremer-Preiß in Stolarz (2003) se s podaljšanjem bivanja starejših ljudi v njegovih domih, v katerih so sposobni živeti čim samostojneje in kakovostno, institucionalizacija pa ni potrebna oziroma je preložena na poznejši čas, tovrsten vložek države hitro povrne. Vendar pa bi morala poleg finančne pomoči družinskih članov in države za ustrezno stanovanjsko varstvo in oskrbo v starosti prispevati družba v celoti. Po Kolmančiču (2010) bi bila najbolj primerna vzpostavitev sistema socialnega zavarovanja za dolgotrajno oskrbo, ki bi bil ob pokojninskem in zdravstvenem zavarovanju tretji sistem, ki ga financira delovno aktivno prebivalstvo. Da so Slovenci temu naklonjeni, kaže raziskava Evropske komisije (2007), po kateri je 72 % anketiranih podprlo obvezno plačevanje prispevka za storitve dolgotrajne oskrbe.

Za zagotavljanje primerne stopnje stanovanjskega varstva starejšega prebivalstva v Sloveniji v prihodnje obstajajo torej mnoge rešitve in instrumenti. Vendar pa je problematika rešljiva samo s skupno, dodelano strategijo ter ukrepi, ki si ne bi bili nasprotujoči. Sprejetje takšne strategije pa je zelo kompleksna naloga, kar dokazuje tudi sprejemanje zakona o dolgotrajni oskrbi, ki je v pripravi že več kot sedem let. Za zmanjšanje potreb po različnih storitvah oskrbe in nege v starosti in podaljšanje neodvisnega življenja v starosti ter bivanja v svojem domu smo zato dolžni v prvi vrsti poskrbeti sami. Veliko bi že pripomogli z zdravim načinom življenja in aktivnim staranjem (ang. active ageing). Da je ima to pozitivne učinke za celotno družbo, dokazuje tudi evropsko leto aktivnega staranja in medgeneracijske solidarnosti.

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HOUSING CARE OF THE ELDERLY PEOPLE IN SLOVENIA: HOMES FOR THE ELDERLY AND OWNER-OCCUPIED DWELLINGS

Summary

There are several forms of housing for the elderly people in Slovenia – owner-occupied dwellings, rental housing, sheltered housing and homes for the elderly. The most widespread are homes for the elderly and owner-occupied dwellings. Homes for the elderly are increasingly faced with some series problems. The first problem is the inconsistent ratio between regional capacities and needs. Another major problem is the increasing number of laws and rigidity of regulations, which restrict the autonomy, management capacity, appropriate staffing and rational functioning of institutions, especially private, which are same as public homes for the elderly part of the public sector and public services. A further problem is an inadequate pricing policies in long-term care for the elderly. There are some options for solving described problems. For the elimination of regional disparities of the needs and capacities the capacity of the homes for the elderly should be increased in the major urban centres. For increasing autonomy and for more flexible operation of public and private homes for the elderly equal opportunities for the operation should be allowed. To solve the inadequate pricing policy the most appropriate solution would be increasing of the prices for the residential care in the homes for the elderly. Slovenia is characterized by high ownership housing occupancy, which is also reflected among the elderly – 96% of Slovenes, aged over 65 years, own their dwellings. Ageing at home and ageing in place are, therefore, the most desirable forms of residence for the elderly. Preferences of the elderly people to stay in their own homes also bring a number of obstacles, such as inadequate housing arrangements, inappropriate location of residence, costs of maintaining the property. But on the other hand, dwelling ownership could be also a form of the capital, and as such the basis for a variety of instruments in the conversion of real estate income, which could solve described problems. Other solutions for ensuring an adequate level of housing care of the elderly people in Slovenia in the future could also be: family transfers, improvement and extending of the network of the home help and remote home care, adapting of the dwellings, creation of adequate social insurance system for long-term care, healthy lifestyles and active ageing.

USMERITVE ZA TRAJNOSTNI PROSTORSKI RAZVOJ OBMOČIJ PROIZVODNIH DEJAVNOSTI

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Izvleček

Usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti

V članku so prikazane temeljne usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti. Nabor usmeritev je oblikovan na osnovi analize dosedanjih razvojnih dokumentov na nacionalni in nadnacionalni ravni in raziskovalnih nalog s tega področja ter rezultatov iz študije primera (Mariborska urbana regija). V članku prikazane izkušnje z načrtovanjem območij proizvodnih dejavnosti in opredeljene usmeritve so lahko pomembno vodilo za trajnostni prostorski razvoj območij proizvodnih dejavnosti v novem gospodarskem ciklu.

Ključne besede

trajnostni razvoj, prostorsko planiranje, ekonomska geografija, območja proizvodnih dejavnosti, Mariborska urbana regija

Abstract

Guidelines for the sustainable spatial development of industrial zones

The article describes basic guidelines for the sustainable spatial development of industrial zones. The presented list of guidelines is the result of the compounded methodological approach: analysis of the development documents from the national and supranational level, analysis of the research reports on spatial development in Slovenia and a case study research conducted in Maribor urban region. Guidelines for the sustainable spatial development of industrial zones can serve as an important guidance for spatial development of Slovenia in the era of the new economic cycle.

Key words

Sustainable development, spatial planning, economic geography, industrial zones, Maribor urban region

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1. Uvod

Sredino prvega desetletja 21. stoletja je v Sloveniji zaznamovala visoka gospodarska rast. Realna rast bruto domačega proizvoda (BDP) je po letu 2005 presegala 5 % na leto. Najvišja medletna realna rast BDP je bila leta 2007, kar je s 6,9 % Slovenijo poleg baltskih držav in Slovaške v obdobju pred začetkom finančno-gospodarske krize leta 2008 uvrstilo med gospodarsko najhitreje rastoče države Evropske unije (Eurostat 2012).

V obdobju zadnjega gospodarskega razcveta v Sloveniji so se poleg (več)stanovanjskih zgradb in poslovnih objektov (Kušar 2012) pospešeno urejala tudi območja proizvodnih dejavnosti. V tem procesu je sodelovala večina občin v Sloveniji, vendar pri tem niso bile vse enako uspešne. Manj uspešne so bile predvsem tiste, ki se nahajajo v manj razvitih regijah in so odmaknjene od glavnega prometnega križa oziroma naselbinskih osi (Potočnik Slavič 2010).

Zaradi pomanjkanja komunalno opremljenih zemljišč namenjenih za poslovne cone, togosti planerskega sistema in zastarelih planskih dokumentov, regionalnih razlik v ceni zemljišč ter konkurence med primestnimi občinami so nova območja proizvodnih dejavnosti nastajala na neurbaniziranih območjih manjših primestnih občin oziroma izven glavnih poselitvenih območij (Komenda, Lukovica, Pivka). Pri tem je šlo predvsem za green-field razvoj, medtem ko so se opuščena degradirana območja znotraj mest večinoma prestrukturirala in prenavljala v stanovanjska, trgovska in poslovna območja ali pa so ostala degradirana območja. Za nova območja proizvodnih dejavnosti je bila značilna mešana raba, kjer proizvodnja večinoma ni bila najpomembnejša dejavnost, ampak so prevladovale trgovina, logistika, skladišča, obrt in druge nekmetijske gospodarske dejavnosti. Na regionalni ravni se niso izoblikovale večje cone, ki bi bile konkurenčne v mednarodnem merilu (Rebernik et al. 2007).

Razvoj območij proizvodnih dejavnosti je odstopal od v Strategiji prostorskega razvoja Slovenije (2004) in drugih razvojnih dokumentih zapisanih usmeritev, da naj se dejavnosti usmerjajo v poselitvena območja mest in drugih naselij. Pri njihovem oblikovanju se ni upoštevala hierarhična struktura sistema naselij. Nova območja proizvodnih dejavnosti so se širila tudi na območja, ki so primerna za kmetijstvo.

Na osnovi zgornje analize prostorskega razvoja območij proizvodnih dejavnosti po letu 2000 je mogoče skleniti, da razvoj območij proizvodnih dejavnosti ni sledil usmeritvam za trajnostni prostorski razvoj. Namen članka je zato s pomočjo analize virov (dokumentov, strategij, raziskovalnih nalog, strokovne literature) in študije primera opredeliti usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti.

V članku so opredeljene usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti, ki izhajajo pretežno iz dokumentov in stanja v prostoru pred začetkom finančno-gospodarske krize, s katero se je Slovenija soočila na prelomu med letoma 2008 in 2009. Te izkušnje in usmeritve so lahko pomembno vodilo za trajnostni razvoj območij proizvodnih dejavnosti v fazi ekspanzije v naslednjem gospodarskem ciklusu.

Po uvodu je v poglavju Metode dela predstavljen metodološki pristop, ki smo ga uporabili za oblikovanje nabora ključnih usmeritev za trajnostni prostorski razvoj

območij proizvodnih dejavnosti. V naslednjem poglavju je opredeljen trajnostni prostorski razvoj (območij proizvodnih dejavnosti). Sledita analizi dokumentov in izkušenj iz študije primera. V sklepu povzemamo najpomembnejša spoznanja in opredeljujemo ključne usmeritve za prihodnji trajnostni prostorski razvoj območij proizvodnih dejavnosti.

2. Metode dela

Usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti so bile oblikovane na osnovi dveh med seboj povezanih pristopov.

V prvem delu smo analizirali razvojne dokumente in raziskovalne naloge, ki govorijo o prostorskem razvoju (območij proizvodnih dejavnosti). Med njih smo vključili tudi dokumente, ki opredeljujejo trajnostni prostorski razvoj v Evropski uniji: Evropske prostorsko razvojne perspektive (2000), Vodilna načela za trajnostni prostorski razvoj evropske celine (2000), Kohezijska politika in mesta: prispevek mest in naselij k rasti in zaposlovanju v regijah (2006).

Analizirali smo naslednje nacionalne razvojne dokumente: Strategija razvoja Slovenije (2006), Državni razvojni program (2006), Nacionalni strateški referenčni okvir (2006) in regionalne razvojne programe za programsko obdobje 2007-2013. Poseben sklop analiziranih dokumentov so usmeritve za prostorski razvoj v Sloveniji: Ocena stanja in teženj v prostoru Republike Slovenije (2001), Politika urejanja prostora Republike Slovenije (2001), Strategija prostorskega razvoja Slovenije (2004) in Prostorski red Slovenije (2004).

Da bi opredelili najustreznejše usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti, smo pregledali tudi nekatere raziskave s področja prostorskega načrtovanja (navedeni so nosilci raziskovalnih nalog): Analiza prostorskih razvojnih možnosti Slovenije (Černe 2001), Poselitev in prostorski razvoj Slovenije (Ravbar 2001), Poselitvena območja ter usmeritve in merila za razvoj in urejanje naselij (Drozg 2001), Varstvo okolja in prostorski razvoj Slovenije (Plut 2002), Nacionalne smernice za prostorski razvoj regij (Pogačnik 2002), Gospodarske cone in prostorski razvoj Slovenije (Sitar 2002) ter Analiza stanja in trendov prostorskega razvoja Slovenije (Černe 2003). Na osnovi analize vseh teh virov je bil oblikovan širok nabor usmeritev, ki naj bi služil kot izhodišče za naslednji metodološki pristop.

Drugi metodološki pristop se je nanašal na preverjanje ustreznosti usmeritev za lociranje območij proizvodnih dejavnosti ter na zbiranje izkušenj prostorskih načrtovalcev na občinah. S posebnim vprašalnikom (Prostorsko načrtovanje in doseganje ciljev trajnostnega prostorskega razvoja na lokalnem (občinskem) nivoju) smo na vzorčnem območju Mariborske urbane regije preverili, kateri so izzivi povezani z načrtovanjem, uresničevanjem in širjenjem območij proizvodnih dejavnosti na lokalni (občinski) ravni. Obiskali smo vse občine v Mariborski urbani regiji ter pri osebah odgovornih za prostorsko načrtovanje preverili, kateri ukrepi bi bili po njihovi strokovni oceni ustrezni za trajnostni prostorski razvoj območij proizvodnih dejavnosti v prihodnosti.

Mariborska urbana regija je območje, ki obsega tri upravne enote: Maribor, Pesnica in Ruše. To območje je bilo v okviru projekta REPUS (INTERREG III B CADSES Strategy for a Regional Polycentric Urban System in Central-Eastern Europe

Economic Integrating Zone) opredeljeno kot LLS Maribor oziroma Local Labor System Maribor, ki zajema funkcionalno urbano območje Maribora z intenzivnimi stiki med mestom in njegovo okolico (Pichler-Milanović et al. 2007). V Mariborski urbani regiji je 12 občin: Mestna občina Maribor, Ruše, Lovrenc na Pohorju, Selnica, Pesnica, Kungota, Šentilj v Slovenskih goricah, Miklavž na Dravskem polju, Hoče-Slivnica, Rače-Fram, Starše in Duplek.

Občine poimenujejo svoje gospodarske cone z različnimi imeni: industrijska cona, obrtno-poslovna cona, poslovna cona in podobno. V članku združujemo vse vrste gospodarskih con pod izrazom območje proizvodnih dejavnosti. Ta je opredeljen v Prostorskem redu Slovenije (2004) kot ena od osnovnih namenskih rab prostora, ki se podrobneje deli na površine za industrijo, površine z objekti za kmetijsko proizvodnjo in na površine za proizvodnjo. Za območja proizvodnih dejavnosti je značilno, da so le redko monostrukturne in namenjene izključno proizvodnji, ampak je v njih praviloma mešana namenska raba zemljišč. V območjih proizvodnih dejavnostih so locirani skladišča, industrija, proizvodna in storitvena obrt, trgovina, finančne in svetovalne storitve ter logistična dejavnost.

Večina raziskovalnih prizadevanj in rezultatov, ki so prikazani v tem članku, je bila izvedena v okviru raziskovalne naloge oziroma ciljnega raziskovalnega programa (CRP) z naslovom Povezovanje kriterijev in ukrepov za doseganje trajnostnega prostorskega razvoja mest in drugih naselij v širšem mestnem prostoru, ki je potekala leta 2007 in 2008. Naročnika projektne naloge sta bila Ministrstvo za okolje in prostor ter Javna agencija za raziskovalno dejavnost Republike Slovenije. Izvajalca sta bila Oddelek za geografijo Filozofske fakultete Univerze v Ljubljani in Urbanistični inštitut Republike Slovenije, nosilec naloge je bil doc. dr. Dejan Rebernik iz Oddelka za geografijo Filozofske fakultete Univerze v Ljubljani. Namen raziskovalnega projekta ni bil oblikovanje novega sistema usmeritev za razvoj območij proizvodnih dejavnosti, temveč povezati že predlagane kriterije in ukrepe iz dosedanjih raziskovalnih projektov, strateških dokumentov na nadnacionalni in nacionalni ravni ter izvedbenih dokumentov na lokalni (občinski, medobčinski, regionalni) ravni v Sloveniji (Rebernik et al. 2006).

3. Trajnostni prostorski razvoj območij proizvodnih dejavnosti

Osnovni koncept paradigme trajnostnega razvoja govori o takšnem razvoju, ki ne ogroža zadovoljevanja potreb prihodnjih generacij. Trajnostni razvoj na področju rabe prostora in prostorskih ureditev mora zato ob upoštevanju varstva okolja, ohranjanja narave in trajnostni rabi dobrin, varstvu kulturne dediščine in drugih kakovosti naravnega in bivalnega okolja omogočati zadovoljevanje potreb sedanje generacije brez ogrožanja zadovoljevanja potreb prihodnjih generacij (Marsič 2007). To pomeni, da je potrebno usklajevati družbene in gospodarske zahteve po namenski rabi prostora z njegovimi ekološkimi in kulturnimi funkcijami (EPRP 2000).

Trajnostni prostorski razvoj se pospešuje predvsem z razvojem uravnotežene poselitvene zgradbe. Temeljne prostorske značilnosti trajnostnega sistema poselitve, med katerega se uvrščajo tudi območja proizvodnih dejavnosti, so zgoščevanje dejavnosti okoli točk z dobro dostopnostjo ter hierarhična, policentrična in decentralizirana poselitvena mreža z vmesnimi »nedotaknjenimi« prostori (Marsič 2007). Trajnostni prostorski razvoj zato zajema naslednje vidike, ki jih je potrebno upoštevati pri načrtovanju območij proizvodnih dejavnosti (EPRP 2000):

- nadzor nad fizično širitvijo mest;
- mešanje funkcij in družbenih skupin;
- preudarno upravljanje z urbanimi ekosistemi ob hkratnem varčevanju z naravnimi viri (voda, energija);
- prenova degradiranih območij;
- boljša dostopnost do različnih vrst prometa;
- ohranjanje naravne in kulturne dediščine.

Doseganje trajnostnega prostorskega razvoja mest je mogoče skozi prilagajanje mestnega razvoja zmogljivostim ekosistemov, izboljševanje grajenega okolja, ohranjanje okoljskega kapitala, mešanje namenske rabe, učinkovitejše rabe zemljišč – tudi s sanacijo opuščenih zemljišč, zmanjševanje porabe energije potrebne za potovanja in prevoz blaga, kompaktnostjo mesta ter energetsko sanacijo (Rebernik et al. 2007).

Usmeritve za prostorsko načrtovanje, s katerimi s katerimi je mogoče doseči trajnostni prostorski razvoj, so:

- decentralizacija dejavnosti in funkcij, policentrični razvoj in hierarhična struktura poselitvenega sistema;
- sklenjenost, kompaktnost, zgoščevanje znotraj obstoječih poselitvenih območij;
- mešana raba;
- sanacija degradiranih območij;
- energetska in socialna sanacija;
- zmanjševanje pritiskov na okolje z gradnjo čistilnih naprav, kanalizacijskih sistemov, plinifikacijo in urejenim javnim potniškim prometom;
- dobra dostopnost z javnim potniškim prometom in zmanjševanje razdalj, ki jih je potrebno premagati.

Načrtovanje trajnostnega prostorskega razvoja območij proizvodnih dejavnosti zahteva prilagajanje hierarhije proizvodnih območij policentrični strukturi poselitve oziroma naselij, zgoščevanje in zaokroževanje sedanje poselitvene strukture, gradnjo na opuščenih in degradiranih površinah, prednost sanacije pred novogradnjami, urejen kanalizacijski sistem, plinovod in dostopnost z javnim potniškim sistemom ter ustrezno prometno dostopnost (lociranje ob križiščih ter ob državnih cestah in železnici).

4. Usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti: analiza dokumentov

Analizirani razvojni dokumenti na ravni Evropske unije in na nacionalni ravni ter raziskovalne naloge prikazujejo stanje in težnje v prostoru, razvojne možnosti ter opredeljujejo naloge in prioritete prostorske politike na področju racionalne rabe območij proizvodnih dejavnosti, ki vključujejo ukrepe, kriterije in usmeritve za njihov prihodnji razvoj.

Pri racionalni rabi proizvodnih območjih se pojavljajo številni izzivi, ki pa niso značilni izključno za načrtovanje območij proizvodnih dejavnosti, ampak so skupne različnim namenskim rabam in kažejo na splošne izzive, s katerimi se sooča planerski sistem v Sloveniji.

Kljub obsežnim degradiranim območjem v posameznih mestih, ki zajemajo poleg rudarskih in stanovanjskih tudi industrijska območja, se gospodarstvo sooča s pomanjkanjem ustreznih lokacij za nameščanje proizvodnih dejavnosti. Po letu 2000 so pospešeno nastajala nova, manjša območja proizvodnih dejavnosti. Nastajala so pretežno izven mestnega prostora, saj so bila načrtovana v obmestnem prostoru ali celo v podeželskem zaledju mest. Nova območja proizvodnih dejavnosti zaradi svoje majhnosti in pomanjkljive vključenosti v širši gospodarski prostor niso konkurenčna v mednarodnem okviru. Zaradi neracionalne rabe obstoječih grajenih in prometnih površin je tudi v prihodnosti mogoče pričakovati naraščajoče pritiske (novih) industrijskih in obrtnih obratov na kmetijska zemljišča.

Pri načrtovanju območij proizvodnih dejavnosti predstavljajo ovire tudi omejitve obstoječega sistema prostorskega načrtovanja: zastarela prostorska dokumentacija, ki se spreminja počasneje od zakonsko predvidene časovne dinamike, neurejen sistem prostorske informatike, parcialno zasnovani in izpeljani urbanistični načrti za posamezna mestna območja ter dolgotrajni administrativni in drugi postopki.

Usmeritve in ukrepe, ki jih navajajo analizirani viri, je mogoče združiti v šest skupin: splošne usmeritve, lociranje, pridobivanje zemljišč, sanacija degradiranih območij, prostorsko-načrtovalski postopki in urbanistične usmeritve.

Splošne usmeritve za lociranje območij proizvodnih dejavnosti predvidevajo oblikovanje razvojnih središč s poslovno-industrijsko-logističnimi območji (conami), tehnološkimi parki in tehnološkimi centri, regionalnimi podjetniškimi inkubatorji, univerzitetnimi, visokošolskimi in raziskovalnimi središči, medpodjetniškimi izobraževalnimi centri in podobno. Poskrbeti je potrebno tudi za ustvarjanje privlačnih urbanih okolij za vlaganje oziroma za spodbujanje domačih in neposrednih tujih investicij in to predvsem z zagotavljanjem »mehkih« lokacijskih dejavnikov, kot so na primer celostna podoba mesta, kakovost bivalnega in delovnega okolja ter kulturna ponudba. Območja proizvodnih dejavnosti naj imajo možnosti za oblikovanje mešanih con. Ustanavljajo naj se tudi na območjih, ki z vidika povpraševanja po zemljiščih trenutno niso najprimernejša.

Analizirani viri opredeljujejo tri usmeritve v povezavi z lociranjem območij proizvodnih dejavnosti:

- zagotoviti je potrebno ustrezno dostopnost: območja proizvodnih dejavnosti naj se nameščajo ob prometna vozlišča, zagotovljena naj bo optimalna povezava z drugo infrastrukturo;
- nova območja proizvodnih dejavnosti naj se navezujejo na obstoječa območja proizvodnih dejavnosti in prometne terminale ter na obstoječe raziskovalne ustanove, univerzo, tehnološke parke in druga razvojna jedra;
- pri lociranju novih območij proizvodnih dejavnosti naj se upošteva velikost naselij in njihova vloga v urbanem sistemu: urejene industrijske cone naj bodo zlasti v regionalnih in subregionalnih središčih; urejene podjetniško-obrtne cone naj bodo tudi v občinskih središčih; vsaka regija naj ima tehnološki park in podjetniški inkubator, praviloma v regionalnem središču.

Pri pridobivanju zemljišč za oblikovanje območij proizvodnih dejavnosti naj bi bilo dopustno smotrno povečevanje urbanega prostora naselij. S tem bi povečali razpoložljivost stavbnih zemljišč za gospodarstvo oziroma zagotavljali ustrezna

industrijska zemljišča. Potrebno bi bilo tudi olajšati in poceniti pridobitev zemljišč in zapuščenih proizvodnih in drugih prostorov.

Analizirani dokumenti in raziskovalne naloge posvečajo posebno pozornost sanaciji degradiranih območij. Proizvodne dejavnosti naj bi se preselile iz središč naselij. Stara in degradirana industrijska območja je potrebno funkcijsko, družbeno, ekološko in arhitekturno sanirati, da bi se omejili posegi na novih zemljiščih oziroma da se nadomesti proizvodno dejavnost z drugimi rabami prostora. Sanacija naj zajema tudi povečevanje izkoriščenosti poselitvenega prostora (koncentracija stavb).

V povezavi z umeščanjem območij proizvodnih dejavnosti v prostor naj bi bilo potrebno posebno pozornost posvetiti:

- poenostavitvi postopkov pridobivanja dovoljenj;
- skrajšanju časa za pridobitev dovoljenj;
- ureditvi lastništva nepremičnin in zemljiške knjige;
- ureditvi trga nepremičnin.

Usmeritve za urbanistično zasnovo območij proizvodnih dejavnosti so:

- zagotavljanje prostorskih možnosti (za širitev);
- upoštevanje omejitev, ki izhajajo iz značilnosti naravne in kulturne krajine;
- preprečevanje negativnih vplivov na okolico oziroma obvladovanje teh vplivov;
- razmestitev območij proizvodnih dejavnosti ne sme poslabševati bivalnih in delovnih razmer v neposredni okolici ter zmanjševati dostopnosti do drugih območij;
- v območja površin za industrijo se ne smejo umestiti stanovanja in spremljajoče dejavnosti, primarna kmetijska proizvodnja in dejavnosti, ki ogrožajo varnost ljudi in premoženja;
- potrebna je ustrezna ureditev zelenih površin in drugih javnih odprtih prostorov znotraj območij proizvodnih dejavnosti;
- na stiku območij proizvodnih dejavnosti in območij stanovanj naj se zagotovijo ustrezni odmiki in zeleni pasovi.

5. Usmeritve za trajnostni prostorski razvoj območij proizvodnih dejavnosti: izkušnje iz Mariborske urbane regije

Prostorska razporeditev območij proizvodnih dejavnosti v Mariboru in njegovem funkcionalnem urbanem območju ima korenine v intenzivni industrializaciji v času pred prvo svetovno vojno in po njej. Po prvi svetovni vojni so se oblikovale prve tri industrijske cone: Melje, Tezno in Studenci. Maribor se je razvil v enega najmočnejših industrijskih centrov v Sloveniji in Jugoslaviji. Ta pomen je mesto ohranilo do konca osemdesetih let 20. stoletja. Po drugi svetovni vojni so se oblikovala tudi nova območja proizvodnih dejavnosti, ki so bila razporejena bolj disperzno. V sedemdesetih letih 20. stoletja je bilo tako v Mariboru 8 industrijskih con, ki so bile vzpostavljene nesistematično v okolici obstoječih tovarn v mestu (Lorber 2006a). Pomembni območji proizvodnih dejavnosti v funkcionalnem urbanem območju Maribora sta bili tudi v Rušah (tovarna dušika) in na Sladkem Vrhu (Paloma).

Do gospodarske krize v Mariboru je prišlo že v drugi polovici osemdesetih let 20. stoletja. Najhujša kriza se je razvila ob družbenih in gospodarskih spremembah, do katerih je prišlo leta 1990. Delež industrije v ustvarjenem dohodku je najbolj strmo padal od leta 1989 do leta 1991, zmerneje pa po letu 1991. V obdobju med letoma 1989 do 1998 se je delež prihodkov v industriji prepolovil iz 60,4 % na 31 %. Razlog za tako veliko zmanjšanje je bila velika odvisnost zastarele industrije od jugoslovanskega tržišča. Šele za obdobje po letu 2002 je mogoče govoriti o počasnem oživljanju mariborskega gospodarstva (Lorber 2006b).

Z oživljanjem gospodarstva na začetku 21. stoletja so se pojavili trije z lokacijo proizvodnih dejavnosti povezani prostorski procesi:

1. Prestrukturiranje obstoječih območij proizvodnih dejavnosti. Nekdanje industrijske cone se spreminjajo v poslovno-trgovsko-skladiščno-stanovanjska območja (Rebernik 2009).

2. Disperzija gospodarskih dejavnosti v suburbano zaledje Maribora. Med leti 1999 in 2004 je največ poslovnih subjektov nastalo v občinah na suburbanem območju Maribora, povečanje pa je bilo najmočnejše v njihovih občinskih središčih. Nekatere gospodarske dejavnosti so se selile iz kompaktnega mesta v obmestje. Pri tem prostorskem procesu ni šlo samo za specializirane trgovine in druge storitvene dejavnosti ampak tudi za proizvodne in obrtne dejavnosti. Proces pa ni bil povsod enako intenziven, saj posamezne lokacije, predvsem tiste ob glavnih vpadnicah proti Mariboru in ob avtocesti, ponujajo boljšo infrastrukturo in dostop. Pri tem prihaja do zapolnjevanja in prestrukturiranja prostih, ekstenzivno izrabljenih in degradiranih površin ter tudi do pozidave kmetijskih zemljišč. Podjetja nastajajo tudi izven urejenih območij proizvodnih dejavnosti. Zasebniki svoje dejavnosti pogosto uredijo kar v objektu, v katerem bivajo. To pomeni, da z ustanavljanjem novih malih podjetij prihaja do še večjega mešanja rabe (Drozg 2006).

3. Oblikovanje degradiranih industrijskih con. V Mariboru so se ohranila nekatera območja proizvodnih dejavnosti s slabo vzdrževanimi in dotrajanimi industrijskimi objekti nekdanjih industrijskih gigantov Tama, Metalne, TVT Boris Kidrič, Strojne, Košaške opekarne in drugih (Malenšek 2005; Rebernik 2009).

Degradirana industrijska območja so prostorski potencial za prihodnji razvoj gospodarstva. Maribor je sredi devetdesetih let 20. stoletja, ko se je gospodarska kriza umirila, sodil med mesta z največjimi prostorskimi možnostmi za proizvodne dejavnosti. Kos Grabar (1998) je s pomočjo analize planskih dokumentov ugotovil, da je bilo v tem obdobju v funkcionalnem urbanem območju Maribora 14 razpoložljivih zemljišč za proizvodne dejavnosti, predvsem v okolici Ruš (8) in v občini Lovrenc na Pohorju (3). V Mariboru je bilo opredeljeno le eno območje in sicer industrijska cona na Teznem, ki se je spraznila ob propadu podjetja TAM (Lorber 2006a). Zemljišča za proizvodne dejavnosti pa večinoma niso bila na voljo zaradi slabe infrastrukturne opremljenosti ali nedorečenih ureditvenih pogojev. Večinoma so se nahajala ob robu obstoječih proizvodnih območij in v bližini cest z dobrim dostopom (Kos Grabar 1998).

Analiza vprašalnika, s katerim smo proučevali prostorsko načrtovanje in doseganje ciljev trajnostnega prostorskega razvoja na lokalni (občinski) ravni, je pokazala, da so si po letu 2000 vse občine v Mariborski urbani regiji prizadevale za plansko ureditev novih območij proizvodnih dejavnosti. Povpraševanje gospodarstva po

novih območjih proizvodnih dejavnosti se je na vrhuncu gospodarskega blagostanja v začetku leta 2008 med občinami razlikovalo. V severnem delu Mariborske urbane regije (občini Šentilj in Kungota) ter v občini Lovrenc na Pohorju, ki jo označuje prometna zaprtost, je bilo povpraševanje relativno majhno. Kljub temu so občine načrtovale nova območja proizvodnih dejavnosti, ki bi bila namenjena predvsem domačim podjetnikom. S podobnimi procesi, potrebami in povpraševanjem sta se soočali tudi pretežno podeželski jugovzhodno od Maribora ležeči občini Starše in Duplek. Tudi v njih so načrtovali le manjša območja proizvodnih dejavnosti, ki bi bila namenjena predvsem lokalnim obrtnikom in podjetnikom.

V Mestni občini Maribor je prihajalo do transformacije obstoječih območij proizvodnih dejavnosti z mešanjem različnih vrst rabe, ki vključuje tako storitvene dejavnosti kot tudi gradnjo novih stanovanj (Melje, Tezno, Tabor), medtem ko so proizvodne cone Marles, Studenci in TAM kljub transformaciji značaja proizvodnih podjetij (velik pomen malih in srednje velikih podjetij) ohranjale pretežno proizvodno vlogo. Podobni procesi so bili značilni tudi za občino Ruše, saj se je razvoj proizvodnih dejavnosti osredotočal pretežno na obstoječa območja proizvodnih dejavnosti (tovarna dušika, Hmezad Jeklo, nekdanji Metalplast), načrtovane pa so bile tudi njihove širitve.

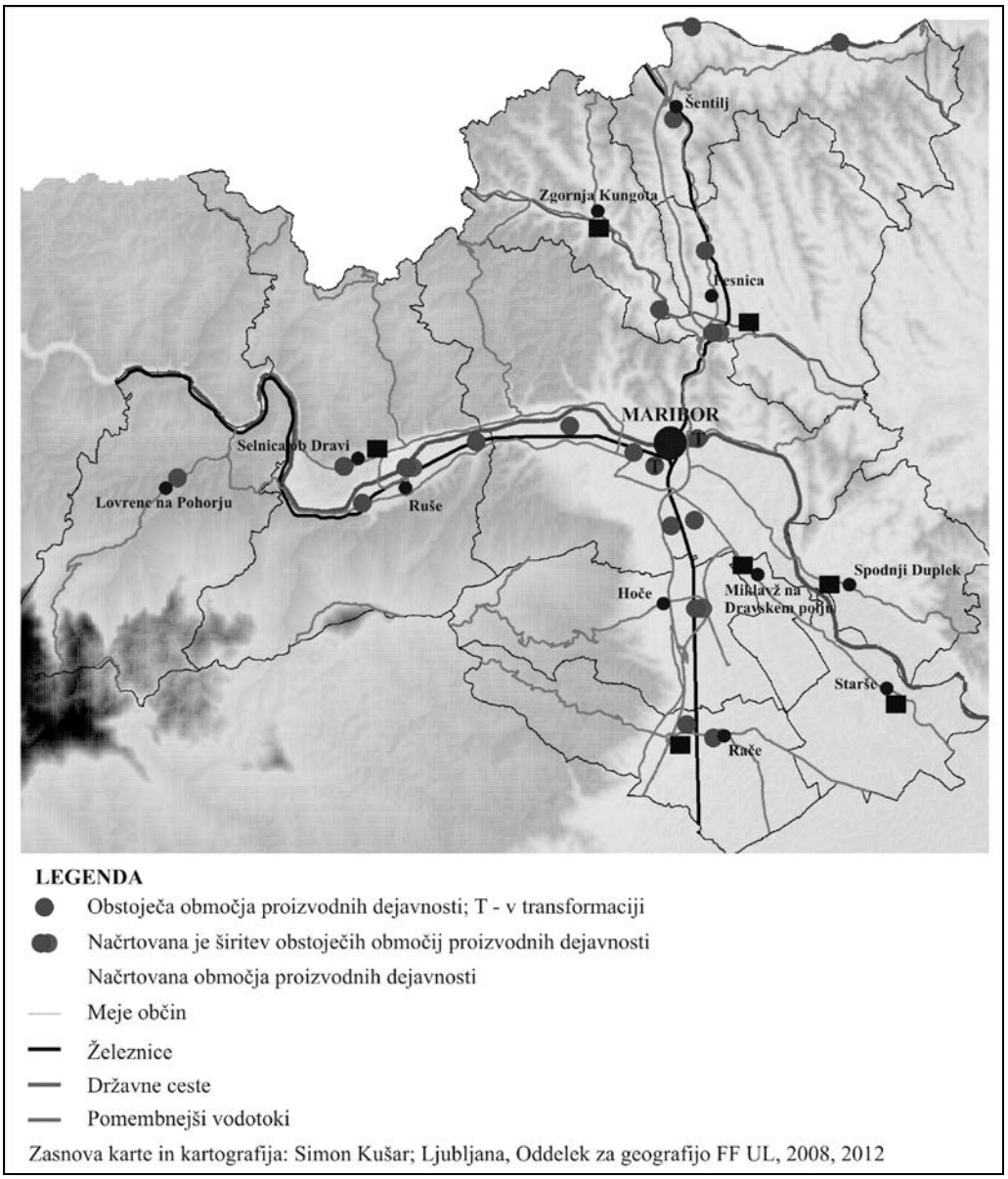
Občine, ki se nahajajo v neposredni okolici Mestne občine Maribor, so se srečevale z velikim povpraševanjem gospodarstva po naselitvi v njihovih območjih proizvodnih dejavnosti. Povpraševanje je bilo najbolj intenzivno v občinah Hoče-Slivnica, Rače-Fram in delno tudi v občini Selnica ob Dravi. Za te občine je značilna dobra prometna infrastruktura. Občine so se srečevale s pomanjkanjem ustreznih plansko opredeljenih zemljišč za proizvodne dejavnosti, kar pa so poskušale rešiti v okviru priprave novih prostorskih dokumentov.

Največji problemi, s katerimi so se občine srečevale pri načrtovanju in širitvi proizvodnih območij, so bili povezani s tremi elementi njihove opredelitve. Prvi element je neustrezna infrastruktura na teh območjih ter neustrezna prometna dostopnost. Drugi problem je povezan predvsem s pomanjkanjem ustreznih finančnih virov tako na občinski kot tudi na državni ravni, s katerimi bi občine lahko opremile območja proizvodnih dejavnosti s komunalno infrastrukturo. Opredelitev območij proizvodnih dejavnosti ovira tudi dolgotrajna priprava prostorskih dokumentov. Največ problemov pri načrtovanju in širitvi območij proizvodnih dejavnosti je bilo v občinah Miklavž na Dravskem polju, Hoče-Slivnica, Maribor in Ruše. V teh občinah je bil pritisk investitorjev zelo velik ali pa so se srečevala z intenzivno transformacijo obstoječih območij proizvodnih dejavnosti.

Občine so probleme povezane z načrtovanjem in širitvijo proizvodnih območij reševale na različne načine. Kot temeljni instrument so uporabljale občinske prostorske načrte (OPN), s katerimi poskušajo umestiti nova območja proizvodnih dejavnosti v prostor na takšen način, da bi dosegle čim bolj optimalno razporeditev namenske rabe. Občini Maribor in Ruše sta posebno pozornost posvečali prestrukturiranju oziroma transformaciji obstoječih območij proizvodnih dejavnosti. Kot pomemben način odgovarjanja na izzive so anketirani izpostavljali tudi sprotno usklajevanje z občani, investitorji in drugimi organizacijami.

Najustreznejši ukrepi za reševanje problemov povezanih z načrtovanjem, uresničevanjem in širitvijo proizvodnih območij naj bi bili po mnenju anketiranih zagotavljanje zadostne ponudbe površin za proizvodne dejavnosti, smotrno

povečevanje poselitvenih območij, nameščanje ob prometnih vozliščih in zagotavljanje ustrezne prometne dostopnosti. Po mnenju občin bi bili najmanj ustrezni oziroma potrebni ukrepi preseljevanje proizvodnih dejavnosti iz središča naselja na obrobje, navezovanje na obstoječe raziskovalne ustanove, univerzo, tehnološki park in druga razvojna jedra ter urejanje zelenih površin, pasov in ustreznih odmikov od drugih rab prostora.



Slika 1: Območja proizvodnih dejavnosti v Mariborski urbani regiji: stanje leta 2008.
Vir: Rebernik et al. 2008.

Zaradi velikega povpraševanja po novih območjih proizvodnih dejavnosti in po širitvi obstoječih občine v času anketiranja niso čutile medsebojne konkurence pri zapolnjevanju teh območij, konkurence niso čutile tudi v regionalnem, državnem ali mednarodnem okviru. Obstoječa in načrtovana območja proizvodnih dejavnosti po oceni intervjuvancev niso predimenzionirana. Cena zemljišč v proizvodnih območjih je bila primerna. Pri njihovem načrtovanju in izvedbi se občine niso srečevale z intenzivnim nasprotovanjem nevladnih organizacij. O najmanjših izzivih pri načrtovanju in širitvi proizvodnih območij so poročali v občinah Lovrenc na Pohorju, Šentilj in Duplek.

Rezultati ankete o doseganju ciljev trajnostnega prostorskega razvoja območij proizvodnih dejavnosti na občinski ravni kažejo, da načrtovanje območij proizvodnih dejavnosti sledi nekaterim usmeritvam, ki jih postavlja koncept trajnostnega prostorskega razvoja: v starih industrijskih središčih je v ospredju prestrukturiranje oziroma sanacija obstoječih območij proizvodnih dejavnosti, v vseh občinah poudarjajo smotrno povečevanje poselitvenih območij, nameščanje novih območij proizvodnih dejavnosti ob prometna vozlišča ter zagotavljanje ustrezne prometne dostopnosti. Kljub temu razvoj območij proizvodnih dejavnosti v Mariborski urbani regiji ne sledi zahtevam in usmeritvam trajnostnega prostorskega razvoja v zadostni meri. Glede na načrte občin (stanje 2008) lahko pričakujemo predimenzioniranost novih območij proizvodnih dejavnosti, ki bodo nepovratno uničila kakovostna kmetijska zemljišča. Močno se bodo povečale prometne obremenitve s tovornim prometom, ki ne bo kanaliziran le na avtocestah in drugih državnih cestah. Razpršena gradnja se bo nadaljevala. Pri načrtovanju se premalo pozornosti posveča odmikom od stanovanjskih območij in ureditvi zelenih pasov. Načrtovanje in razvoj območij proizvodnih dejavnosti je v veliki meri neusklajen na regionalni ravni, saj zanj skrbijo predvsem občine same. Zato ni mogoče pričakovati, da bi se vloga (velikost, pomen) območij proizvodnih dejavnosti prilagajala hierarhiji poselitvenega sistema v regiji.

6. Sklep

Trajnostni prostorski razvoj območij proizvodnih dejavnosti poudarja predvsem čim večjo varčnost pri rabi prostora in energije. Pri oblikovanju in širitvi območij proizvodnih dejavnosti je potrebno izhajati iz obstoječe poselitvene strukture v prostoru: potrebno je zgoščevanje, zaokroževanje, sanacija opuščenih in degradiranih površin; sanacija naj bi imela prednost pred novogradnjami. Območja proizvodnih dejavnosti naj bi bila ustrezno dostopna: locirana naj bi bila ob križiščih, državnih cestah in železnici ter dosegljiva z javnimi prevoznimi sredstvi. Območja proizvodnih dejavnosti naj bi bila ustrezno komunalno opremljena, da bi se preprečevali snovni in emisijski pritiski na okolje. V prostoru naj bi obstajala hierarhija proizvodnih območij glede na policentrično strukturo poselitve oziroma vloge naselij v poselitvenem sistemu regije.

Temeljni strateški razvojni dokumenti na nadnacionalni in nacionalni ravni ter raziskovalne naloge poudarjajo načelo trajnostnega prostorskega razvoja, zato med usmeritve za razvoj območij proizvodnih dejavnosti uvrščajo predvsem varčevanje s prostorom (smotrno povečevanje poselitvenih območij, zgoščevanje zazidave, sanacija degradiranih območij), varovanje okolja (omejevanje emisij, zeleni pasovi, ki naj bi preprečili negativne vplive na bivalno okolje), hierarhijo območij proizvodnih dejavnosti, ki naj bi sledila hierarhiji poselitvenega sistema, zagotavljanje endogenega razvoja (oblikovanje manjših območij proizvodnih

dejavnosti v vseh občinah) ter zagotavljanje ustreznih sodobnih lokacijskih dejavnikov (prometna dostopnost, »mehki« lokacijski dejavniki).
Z vidika razvoja območij proizvodnih dejavnosti so bili na višku gospodarske ekspanzije v začetku leta 2008 za Mariborsko urbano regijo značilni trije različni procesi. Mestna občina Maribor in občina Ruše sta se ukvarjali predvsem s transformacijo obstoječih proizvodnih območij. Občine v neposredni bližini Mestne občine Maribor, ki imajo dobro prometno infrastrukturo (avtocesto), so bile zelo privlačne za lociranje novih proizvodnih dejavnosti, zato v novih prostorskih dokumentih načrtujejo obsežno širitev območij proizvodnih dejavnosti. Občine, ki so od Maribora relativno oddaljene ali nimajo najboljših prometnih povezav, se niso srečevale z velikim povpraševanjem po novih območjih proizvodnih dejavnosti.

Najustreznejši ukrepi za reševanje problemov povezanih z načrtovanjem, uresničevanjem in širitvijo proizvodnih območij naj bi bili po mnenju anketiranih v občinskih upravah zagotavljanje zadostne ponudbe površin za proizvodne dejavnosti, smotrno povečevanje poselitvenih območij, nameščanje ob prometnih vozliščih in zagotavljanje ustrezne prometne dostopnosti. Po mnenju občin bi bili najmanj ustrezni oziroma potrebni ukrepi preseljevanje proizvodnih dejavnosti iz središča naselja na obrobje, navezovanje na obstoječe raziskovalne ustanove, univerzo, tehnološki park in druga razvojna jedra ter urejanje zelenih površin, pasov in ustreznih odmikov od drugih rab v prostoru. Pri tem je potrebno opozoriti, da razmišljanja občinskih uprav zaradi velikih pritiskov po nepovratnem spreminjanju kmetijskih zemljišč v območja proizvodnih dejavnosti pogosto ne gredo v smer trajnostnega prostorskega razvoja.

Teoretične predpostavke o trajnostnem prostorskem razvoju, v strateških razvojnih dokumentih in v raziskovalnih nalogah opredeljene pristope k razvijanju območij proizvodnih dejavnosti ter izkušnje pridobljene s študijo primera je mogoče povezati v naslednji nabor prednostnih usmeritev za doseganje trajnostnega prostorskega razvoja območij proizvodnih dejavnosti, ki bi jih bilo potrebno upoštevati pri njihovem prihodnjem načrtovanju:

1. Načrtovanje novih območij proizvodnih dejavnosti v okviru obstoječih. Z novimi občinskimi prostorskimi dokumenti je potrebno čim bolj omejiti gradnjo novih območij proizvodnih dejavnosti. Območja proizvodnih dejavnosti naj bodo opredeljena v okviru obstoječega stanja, smotrno naj se načrtujejo le njihove širitve. Degradirana območja proizvodnih dejavnosti naj se revitalizirajo (izjema so območja znotraj mest in večjih naselij, ki naj dobijo oskrbno in/ali bivanjsko funkcijo).

2. Usmerjanje novih območij proizvodnih dejavnosti na za kmetijstvo manj primernih lokacijah. Načrtovanje in gradnja novih območij proizvodnih dejavnosti naj bo omejena na slabša kmetijska zemljišča ali na degradirana območja. Kmetijska zemljišča najboljše kakovosti naj ohranjajo kmetijsko proizvodno funkcijo.

3. Dosledno upoštevanje varstvenih omejitev. Nova območja proizvodnih dejavnosti naj ne posegajo na zavarovana območja.

4. Usmerjanje novih območij proizvodnih dejavnosti na komunalno ustrezno urejena območja. Pri načrtovanju novih območij proizvodnih dejavnosti morajo biti ustrezno

opredeljene tudi možnosti za ustrezno komunalno infrastrukturo, ki omogoča nadzorovanje emisij (kanalizacija in čistilna naprava).

5. Dosledno upoštevanje varstvenih načel pri urejanju območij proizvodnih dejavnosti. Upoštevati je potrebno ranljivost okolja, z ustreznimi gradbenimi in krajinskimi posegi je potrebno preprečevati negativne vpliv na bivanjsko okolje (hrup, emisije).

6. Upoštevanje hierarhije naselij pri opredeljevanju hierarhije območij proizvodnih dejavnosti. Večja območja proizvodnih dejavnosti naj se načrtujejo v regionalnih in subregionalnih središčih, kjer je dovolj delovne sile, ustrezna komunalna opremljenost in prometna dostopnost. Pri njihovem oblikovanju naj sodelujejo vse občine v urbani regiji. Vsaka občina naj opredeli ustrezno veliko območje proizvodnih dejavnosti namenjeno endogenemu razvoju podjetništva.

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GUIDELINES FOR THE SUSTAINABLE SPATIAL DEVELOPMENT OF INDUSTRIAL ZONES

Summary

Development of the industrial zones in Slovenia in the last years did not follow the principles of sustainable development. They often emerged in rural areas that are more suitable for the agriculture and away from the main (planned) development corridors and axes. The green-field development was preferred to the re-development of degraded brown-field areas, and the system of industrial zones is not following the hierarchical system of central settlements. Therefore, we prepared a list of guidelines for the future spatial development of industrial zones that would follow the principles of sustainable development. The starting point for preparing the list of guidelines was a number of different guidelines and measures defined in the development documents at the national and supranational level, planning documents defining spatial policy in Slovenia and the research reports regarding the national spatial development. In addition to the abovementioned methodological approach, a case study research was conducted in Maribor urban region to analyse the experience on planning of the industrial zones at the local level and to test the adequacy of guidelines cited from the analysis of the normative sources.

Basic guidelines for the future sustainable spatial development of the industrial zones that should be considered in the new economic cycle are:
1. New industrial zones should be planned in the spatial framework of the already planned and existent industrial zones, which can be expanded. Degraded industrial zones should be revitalized.
2. New industrial zones should be planned in the areas that are not suitable for agriculture.
3. All protection guidelines need to be considered. New industrial zones should not be placed in the protected areas of any kind and hierarchy.
4. New industrial zones should be planned in areas with appropriately arranged building lands with the necessary infrastructure (e. g. use of renewable energy, gas supply, sewage and waste water treatment plant).
5. New industrial zones should be planned in a way to protect the local environment and population from negative effects of the industry by appropriate landscape plans (i. e. green belts).
6. The hierarchy of the settlement network should be considered while planning new industrial zones. Larger industrial zones should be planned and built in regional and sub-regional centres with the appropriate infrastructure and abundant pool of labour, while all the local communities should plan industrial zones for local entrepreneurs.

STATE OF SOIL CONSERVATION PRACTICES IN SILTI WOREDA, SOUTHERN ETHIOPIA

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Abstract
State of soil conservation practices in Silti Woreda, Southern Ethiopia
Soil erosion is the major problem of Ethiopian highland areas where an average soil loss of 42tons/ha/year, with rate soil depth loss of more than 2 cm/year, corresponding to 1 to 2 billion US$/year (an amount comparable to the country's annual budget). The higher soil loss has been estimated at Southern Ethiopia where densely settled on highlands. A vast majority of the population derives its livelihood from forest, livestock herding and agriculture. The economic conditions force the rural poor to exploit the environment for their survival. Keeping the importance, the work was conducted in Silti Woreda, Southern Ethiopia, with the objectives; to identify the current status and trend of soil conservation practices, to assess the socio-cultural, economic, biophysical and institutional/policy/support system constraints for the implementation and maintenance of conservation practices. The study reveals, indigenous soil conservation technologies are considered as effective methods of conservation. But, population poverty and unawareness are major constraints.

Keywords
Soil conservation, agriculture, backwardness, indigenous method, topography

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1. Introduction

Soil is the basic natural resource that directly or indirectly sustains lives of every living creature. The output gained from the soil is the source for economic development of a country. According to FAO (1993) soil of Sub-Saharan areas moderately to agriculture are for the most part, already in use, and efficient use is becoming a matter of life or death for increasing millions of mankind. In satisfying the limitless needs of human beings soil has been started continuously. Some areas are degraded and cannot be productive unless appropriate rehabilitation measures are taken (Tamirie 1995).

The biggest aspiration for the people is to have an adequate diet and livelihood. The resources particularly, soil needed to fulfill these hopes is rapidly shrinking and its productivity is decreasing, inevitably resulting in social disintegration and a climate of conflict and unrest. Unless the livelihood of the rural community increases, it is difficult to reduce degradation of the environment for sustainable utilization (Biswas, 1990). In countries with limited cultivable land and high population growth rates due to soil degradation crop yields have fallen. Nowhere is the lethal interaction of poverty and environment degradation more evident in Ethiopia (Cesen 1986; World Bank 1984). Consequently, about 72% of the total land area of the country falls within the UNEP's definition of desertification.

The problem is extensive in the highlands (above 1500m masl) which comprise 44% of the total land mass, and account for 95% of the crop soil (Heweg and Ludi, 1999). Accommodating about 88% and two-third of the livestock the highlands belong to the areas in Africa with the highest population densities (Kruger et al 1996). It was estimated that soil erosion eroded nearly half of the country's highland areas resulting in soil loss of 1.5 to 2 billion tons/year which is equivalent to 35 tons/ha (Dejene 2003). This corresponds to 1 to 2 billion US$ per annum (an amount comparable to the country's annual budget). Hurni (1993) and Heweg and Stillhardt (1999) estimated that the loss of soil on the highlands might reach annual rates of 200-300 tons/ha/year. Despite the disparities of the estimates, all suggest that the rate of soil degradation in the country is difficult to accept it.

If the trend continues, some 38,000 sq km or about 18% of the highlands of Ethiopia may be eroded down to bare rock by the coming 25 years and further 60,000 sq km will have a soil depth of 10 cm below which the soil would be too shallow to support cropping. About 2 million ha of farmlands are already estimated to be beyond recovery.

Soil loss control measures are needed so that soil can be conserved to be used indefinitely (Larson et al 1987). Soil conservation measures according to Morgan (1979) are related to "changes that man can make to the soil, plant cover and slope of the land, and the effects these have on the mechanics of erosion". To conserve soils, change is needed on the land use, ground cover, land management, soil property, slope length and slope gradient (Hurni 1988).

The practice of soil in study area seems to suffer from a wide range of problems which might be attributed to socio-cultural, economic, and institutional and other related factors. Rather than conserving the soil and water resources in their vicinity to improve the fertility and productivity of their lands, most people prefer to do some other work or to go remote areas or nearby town searching for labor work.

This situation puts under threat the environmental protection of the area in general and the soil practices in particular. Therefore, this study is aimed at investigating the major factors that under mines the sustainable implementation and maintenance of soil practices in Silti woreda[1], Southern Ethiopia.

2. Objectives of the study

The main objective of the research is to investigate the major factors that influence the construction and maintenance of soil conservation practices in Silti Woreda, Southern Ethiopia.
The study tries to address the following specific objectives:

1. To identify the current status and trend of soil conservation practices in the study area.
2. To assess the socio-cultural, economic, biophysical and institutional/policy/ support system constraints for the implementation and maintenance of conservation practices
3. To evaluate the performance and identify problems and opportunities in the application of soil and water conservation practices in the study area
4. To draw lessons that might help in the design and implementation of future conservation programs and policy implication.

3. Hypotheses

Dominant factors hypothesized to influence the implementation of conservation structures.

1. Age of farmers has a positive or negative effect on the implementation and retention of conservation structures.
2. Education is hypothesized to increase probability that a farmer will construct and maintain soil and water conservation structures.
3. The effect of family size on the conservation practices may be either positive or negative
4. Farm size often related to the wealth of a farmer and is expected to be positively associated with implementation of conservation practices.
5. The slope of a plot is also hypothesized to affect conservation practices.
   Severity of erosion: the higher the severity of erosion on the farmers plots, the higher will be their awareness then they are forced to implement conservation structures. Thus it is hypothesized to have positive relation.

4. Research design and methodology

The type of research used in this study was descriptive. Survey method or design of research was utilized in the research. Both quantitative and qualitative approaches of data acquisitions were used to generate data in quantitative and in non-quantitative forms respectively. The study was conducted in Siliti woreda, in Southern Nation, Nationalities and People Regional State (SNNPRS). The woreda was purposely selected due to the fact that the woreda is one of the highly eroded areas in the country. The procedure used for selection of sample kebeles[2] involved purposive sampling method. Agro-ecology, time, cost, accessibility and representativeness of samples were considered in the selection.

[1] Woreda means District
[2] Kebele is an administrative unit made up of many households and villages like a block

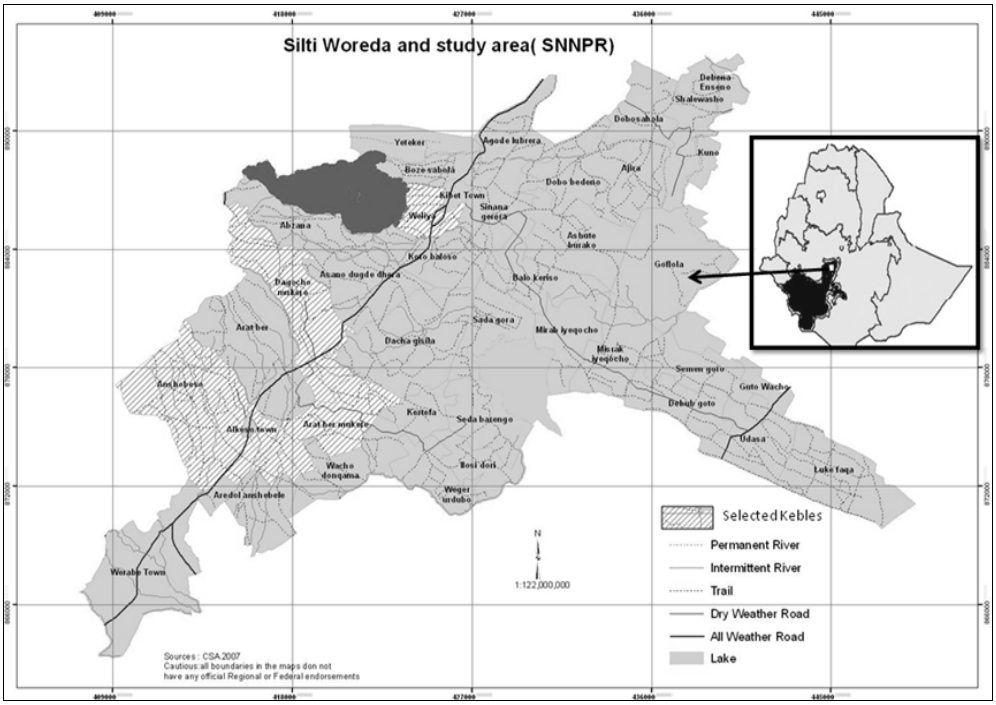

Fig. 1: Location of study area.

4.1 Research type

The type of research used in this study was descriptive. Survey method or design of research was utilized in the research. Both quantitative and qualitative approaches of data acquisitions were used to generate data in quantitative and in non-quantitative forms respectively. All the necessary data required for the study were collected through a sample farm household survey conducted by using questionnaire method from January to February, 2011.

4.2 Sampling techniques

The study was conducted in Siliti Woreda, in Southern Nation, Nationalities and People Regional State (SNNPRS). The woreda was purposely selected due to the fact that the Woreda is one of the highly eroded areas in the country. The procedure used for selection of sample kebeles involved purposive sampling method. Agro-ecology, time, cost, accessibility and representativeness of samples were considered in the selection. Because in the woreda most eroded areas are the highlands, the study focused on those kebeles that lie at elevation above 2000 m (Tab. 1).

From the total 38 rural kebeles of the woreda four highland kebeles were randomly selected as a sample for the study. Following the selection of sample, 120 farm households were purposive selected using list of all farm households available in the selected sample kebeles.

Tab. 1: Sample kebeles and their characteristics.

No	Kebele	Altitude (m)	Household head population	Total population	Area (ha)	Density /ha
1	Aratber Mukere	2090	566	5203	888	5.86
2	Danecho Mukere	2418-3023	981	9307	1477	6.30
3	Weliya	2110	401	3800	600	6.33
4	Anshebeso	2266	864	8211	1285	6.40

Source: Woreda Agricultural and Rural Development Office, 2010.

The selection of sample household was proportional to the total number of households of each kebele. Accordingly 24 households from Arat-ber Mukere kebele, 42 from Dancecho Mukere, 17 from Welia and 37 from Anshebeso were selected. Out of the total sample household heads, 99 were males and the remaining 21 were females (Tab. 2).

The total members of the household heads of four kebeles, 2812 farmers were the sampling frame of the study and sampled 120 farmers drawn randomly from the registry of the kebeles, were the sampling units of the study (Tab. 2).

Tab. 2: Share of the sample population.

Kebele	Total members			share of samples		
	M	F	T	M	F	T
Aratber mukere	384	182	566	19	5	24
Danecho mukere	808	173	981	35	7	42
Welia	355	46	401	13	4	17
Anshebeso	628	236	864	32	5	37
Total	2175	637	2812	99	21	120

Source: Woreda Agricultural and Rural Development Office, 2010.

4.3 Sources and methods of data collection

Data collection for this study involved both primary and secondary sources. The primary data sources used in this study include questionnaires, focus group discussions, field observation and intensive interviews with sample farmers, and other key informants including zonal and local government officials, development agents and elders. All the necessary data required for the study were collected through a sample farm household survey conducted from January to February, 2011. At the first stage of the survey informal meetings were undertaken with a sampled kebeles' representatives, in order to know the general social, cultural, and economic situations of the population of the study area. In addition informal meetings with key informant (farmers, elder people researchers, experts, women, and development agents) were held to get in depth knowledge and to pretest the questionnaire.

Transect walks across the sample kebeles were conducted in order to obtain all the necessary biophysical and major terrain features such as, topography, erosion status, characteristics of implemented soil and water conservation structures, land uses soil types, slope status and soil depth of the areas and to determine the questions that need to be included in the survey.

The survey questionnaire included both open and close ended questions which were pre-tested by administering it to selected respondents. Subsequently on the basis of the results obtained from the pretest necessary adjustments were made on the questionnaire which was ultimately translated from English in to local language, Siltigna. Information through surveying was gathered on farm family characteristics, farm situation implementation and maintenance of various indigenous and improved soil conservation practices, trend of soil and water conservation practices, participation of the society, especially the young generation and family level assistance for the practice. Basic information on crop and livestock production, off-farm activities and income was also collected. Besides questionnaire to conduct field survey instruments were used:

- a Global Positioning System (GPS) to register elevation and location
- clinometers to measure slope gradient
- measuring tape to measure slope length
- camera to take pictures in the field
- soil sample of uplands, middle and bottom lands from different land use types such as cultivated, open grassland and eroded lands during transect walk were taken from 20- 60 cm depth.

Secondary were collected from concerned offices and related to books, journals, official documents. At the end of the formal survey discussions were held with four focus groups having 6- 8 members in each four sample kebeles and with key informants including community leaders, women, elders and development agents these qualitative data were used to verify and supplement the quantitative results from the survey questionnaires.

5. Data analysis

Finally a descriptive statistical procedure of the statistical package for the social sciences (SPSS) was used in analyzing and summarizing the acquired data in this study. The quantitative data were analyzed using descriptive and inferential statistics. The Chi-square test, independent t-test and reliability analyses were used to know the relationship between the dependent and independent variables. The qualitative description was used to describe data acquired through focus group discussions and field observations. Collected data have been represented with the help of series of tables, figures and maps.

To identify the need for soil and water conservation measures in the study area Hurni's (1985), the Universal Soil Loss Equation (USLE) model was applied. The study was briefly introduced this model to predict the extent of soil erosion. The collection of data for this model has been carried out during the field work.

Prior to laboratory analysis, soil samples were first air dried and grounded a 2 mm sieve, except for the determination of total organic carbon, where samples were further grounded to fineness. Texture was determined by modified Bouyoucos hydrometer method. PH and EC (electrical conductivity) were determined 1:2.5 soil to water ratio. Soil organic carbon was determined by Walkley and Black method. Available phosphorus was extracted by Olsen Method and determined calorimetrically. The percentage of soil organic matter was calculated by multiplying the percent organic carbon by a fraction of 1.724 following the standard procedure

that organic matter is composed of 58% of carbon (Wolkite Soil Laboratory Institute 2010).

6. Soil erosion status and conservation

In Silti Woreda, soil erosion is widespread, but there is considerable variation in the degree of erosion from place to place. Erosion is most serious in the highlands and middle lands such that most areas are covered with gullies and bare surfaces. These features are good indicators of severe soil erosion in the woreda (Fig.2).

Fig. 2: Formation of active gullies in A/Mukere.
Source: Field survey, Jan. 2011.

According to the Woreda Agricultural and Rural Development Office (WARDO) annual report, the major causes for soil erosion are the steepness of the land surface, improper land use systems (poor farming practice and expansion of agriculture to sensitive forest and grasslands), poor soil and water conservation practices on farming and eroded lands. So as to predict the extent of soil erosion in the area, this study introduces briefly the Universal Soil Loss Equation (USLE), especially, has been modified for the peculiar conditions of the Ethiopian highlands by Hurni (1985). This model has been applied to emphasize the general need of soil conservation measures in the area. The USLE considers several variables affecting the process of soil erosion, like factors of climate, groundcover, land use type and erodibility of soils (Morgan 1995, cited in Steuernagel 2006).

The Universal Soil Loss Equation (USLE) is given as: $A = RKLSCP$
Where, A = the computed or predicted mean annual soil loss (t/ha/yr), R = the rainfall erosivity factor, K= the soil erodibility factors, L= the slope length factor, S= the slop gradient factor, C= the cropping or ground cover management factor and P= the erosion control practice factor. A detailed description of the variables of this model is attached in the appendix 4.

The results of the application of the Hurni's modified USLE revealed that in the study area an annual soil loss of about 114.59 tons/ha/year on the steep slopes lying between high and middle altitudes indicate the necessity of soil and water conservation measures implementation as well (Tab. 3).

Tab. 3: Hurni's (1985) USLE application factors in the study area.

Elements	Description (value)	Factors	Factor value
Rainfall(mm)	1435.6	R	789.6
Soil color	Red	K	0.25
Slope length(m)	160	L	2.7
Slope gradient	42%	S	4.30
Land cover	Degraded land	C	0.05
Management	No tillage	P	1.00
A= R X K X L X S X C X P		= 114.59	

The main components of soil and water conservation measures implemented in the woreda were dominantly physical and to some extent agronomic structures (Fig. 3). These measures implemented mainly on farm lands, degraded hillsides, gully treatments, watershed development and grazing lands exposed for erosion.

Fig. 3: Enclosed area for regeneration.
Source: Field survey, 2011.

Soil/stone bunds are embankments or ridges made of soil or stones built across a slope, along contours. These structures prevent water from flowing down the slope, and so also prevent soil erosion. There are different types of bunds constructed in the woreda, depending on the availability of the materials. Stone bunds are used mostly in hilly uncultivable eroded lands, and soil bunds are used mainly on farm lands. In the woreda about 6,218.5 km of construction of bunds, 1,884.8 km of maintenance of bunds, 449.7 m^3 waterways, 9,854 m^3 compost, 29,767 trenches, 1,095[2] micro basins, 5,359 ha degraded land enclosure, 18,216,267 preparation of seedlings and 16,516,163 planting of seedlings, 28,156 farm water reservoir and 7,514 spring and channel diversion construction activities were carried out in the woreda from 2004 to 2009 (Tab. 4).

Tab. 4: Performance of improved soil conservation structures-2004 to 2009.

Activities	Unit	2004	2005	2006	2007	2008	2009	Total
Stone/soil bunds construction	km	1123	1280	712	1127	1099.5	881	6222.5
Maintenance of bunds	km	34.3	348	548	346	498	110.5	1884.8
Check dam construction	m^3	63.9	50.7	97	63.8	45.2	129.1	449.7
Check dam maintenance	m^3	38	20	52.4	38.8	20.9	21.5	191.6
Water ways	m^3	51.2	17.3	14	8.8	58.6	116.4	266.3
Compost	m^3	3030	na	169	18	1278	4259	8754
Trenches	No.	na	na	na	Na	6205	23562	29767
Micro-basin	No.	na	na	na	Na	1750	9292	10952
Degraded land enclosure	ha	847	1891	503	847	935	336	5359
- Afforestation - Preparation of seedlings	No.	na na	948953 843200	5850000 5733000	4397000 3270000	3726300 3539985	3294014 3129978	18216267 16516163
Farm pond (water reservoir)	No	3932	4400	4559	8019	3038	4208	28156
Spring and channel diversion	No.	1400	2000	2100	1900	69	45	7514

Source: Woreda Agricultural and Rural Development Office, 2010 (na – not available).

7. Results and Discussions

Interpretation of the analytical findings of the study shows about subsequent to the household, farm, economic characteristics, soil conservation practices and undermining factors.

7.1 Household characteristics by size, age and sex

Household size and characteristics are directly related to the supply and demand conditions for basic human needs, such as food, shelter, health and educational facilities which in turn directly or indirectly influence the continued use of soil and water conservation practices. The household size ranges from 2 to 11 persons with a mean of 6.5 persons, and standard deviation of 1.95. From the total sample households about 48.3% have family size of 6 persons and above per household (Tab. 5).

The family size of those who applied soil conservation practices was larger than those who were not implemented. The Pearson chi-square test (6.8) between household size and farmers implementation of soil conservation practices is not statistically significant (P=0.05, d.f=3). Thus, the hypothesis that states household size is negatively or positively affect the continued use of the practices is rejected. This implies that households with larger or smaller household size are not less likely implement and maintain conservation structures than their counterparts.

With respect to the age structure of the sample households, average age of 46.9 years ranges from 26 to 74 with a standard deviation of 10.66. Most of the respondents (> 80.8%) belong to the young and the middle-age groups which is an indication that there is a sufficiently large labor force (Tab. 4). These farmers have better understanding of soil erosion problems due to more access to information in the area and as a result more interested in soil and water conservation practices.

Tab. 5: Distribution of sample households by family size.

Household size	Soil conservation measures				Total sample (120)	
	Implemented (n = 74)		Not implemented (n = 46)			
	Count	%	Count	%	Count	%
Less than 3	4	5.4	3	6.5	7	5.8
3 -6	28	37.8	27	58.7	55	45.8
7-9	34	46	15	32.6	49	40.8
above 9	8	10.8	1	2.2	9	7.6

Source: Field survey, 2011.

From the total respondents 61.7% implemented the soil conservation practices. The remaining 46% or 38.8% didn't construct any type of conservation measures. From the total implemented farmers more than 66% of them were found within the age group 36-56 years. The remaining age group account 21.6% for age groups of 56-76 and 12.2% for age group 26-36. However, the Chi-square results showed that there is no significant association between age and conservation practices ($X^2 = 6.4$, at $P < 0.05$).

Tab. 6: Farmers' implementation of soil conservation structures by age groups.

Household head age	Soil conservation				Total sample (N=120)	
	Implemented (74)		Not implemented (46)			
	Count	%	Count	%	Count	%
26-36	9	12.2	12	26.1	21	17.5
37-46	21	28.4	15	32.6	36	30
47-56	28	37.8	12	26.1	40	33.3
57-66	13	17.6	7	15.2	20	16.7
67-76	3	4.0	-	-	3	2.5
Total	74	100	46	100	120	100

Source: Field survey, 2011.

Among household heads 80.8% were male and 19.2% were female. The marital status of the total household heads, revealed that 80.8%, and 19.2% of them were married and widowed, respectively. From those who were implemented soil conservation practices, 16.2% was females (Tab. 7).

Tab. 7: Household heads by sex and marital status.

Household head characteristics (years)	Soil conservation practices				Total sample (120)	
	Implemented farmers (74)		Not implemented farmers (46)			
	Count	%	Count	%	Count	%
Sex:						
Male	62	83.8	35	76.1	97	80.8
Female	12	16.2	11	23.9	23	19.2
Marital status						
Married	62	83.8	35	76.1	97	80.8
Widowed	12	16.2	11	23.9	23	19.2

Source: Field survey, 2011.

7.2 Educational Status of Sample Household Heads

Low level of education and high illiteracy rate is typical in developing countries like Ethiopia. Four education level groups were identified which include, illiterate, literate primary, and above primary. Among household heads 47.5% were illiterate, 10.8% can read and write, 27.5% attended primary and 14.2% attended above primary level. About 21.6% of those who were used conservation measures and 89.1% of

those who were not implemented the practice categorized under the illiterate group of farmers (Tab. 8). Almost half of the respondents in the area are not educated and thus have little access to information about soil conservation practices. Generally, better-educated households have a more realistic perception about soil erosion problems, have more knowledge related to soil conservation practices and hence can more easily be involved in conservation activities. The Pearson Chi-square analysis for educational status of sample households between the continuously implemented groups and those who were not used the practice was found to be positively significant (X^2 = 53.6 at P < 0.05, d.f =3). Therefore, the hypothesis that states education status of household heads is positively associated with their continued use of soil conservation practices is accepted. This result is in line with findings of Ervin and Ervin (1982). They found that education was significantly related with conservation efforts. According to them, farmers are more educated, are more likely to use contouring, minimum tillage, and hay or pasture rotation to control soil loss. Krishna et al, (2008), Okoye, (1998), and Gould et al, (1989) also found a positive relationship.

Tab. 8: Educational status of household heads and soil conservation.

Household head educational level	Soil conservation practices				Total sample size (N = 120)	
	Implemented farmers (74)		Not implemented farmers (46)			
	Count	%	Count	%	Count	%
Illiterate	16	21.6	41	89.1	57	47.5
Read & Write	10	13.5	3	6.5	13	10.8
Primary (1-8)	31	41.9	2	4.4	33	27.5
Above primary	17	23	0	-	17	14.2

Source: Field survey, 2011.

7.3 Land holding and farm characteristics - farm size and number of farm plots

Land resource is one of the most important production factors for agricultural production. In rural households, in developing countries land and labor account for the largest share of agricultural inputs. Hence, the quality and quantity of land available for farm size of farm plots in the study area varies with density of population, which in turn follows farmers' local knowledge of soil fertility and topsoil depth. The survey result shows that the size of land holding varies from 0.25 to 4 ha with a mean size of 1.46 ha. As depicted from Tab. 9 about 65% of household heads owned less than 1 ha and about 29.2 % of the respondents possessed from 1 to 2 ha. Those farmers who implemented soil conservation measures owned farm size greater than 1ha. The Chi-square test for those who were implemented and not implemented with regard to farm size was found to assure the existence of significant association between the two variables (X^2 = 8.71 at P < 0.05, d.f=2). Thus, the hypothesis that states farm size is positively associated with the use and maintenance of soil conservation structures is accepted.

This suggests that farmers who possess small farms or less than 1 ha are less likely to invest in soil conservation practices. This may be due to the fact that conservation structures occupy part of the scarce farming lands, therefore farmers with smaller farm size cannot construct and maintain conservation structures compared to those with relatively larger farm size. In different studies conducted in Ethiopia it was reported that conservation structures takes 10-20% cultivation land through embankment and ditches (Cambell 1991, cited in Zelalem 2010) and land taken out of cultivation increases rapidly with increasing slope. This makes the

benefit that may be obtained from conserving soil in small farms to be less likely to compensate for the decline in production due to physical conservation measures (Wegayehu and Lar 2003). Studies made in different parts of Ethiopia also supported the above findings. Bekele and Darke (1998) reported that existence of soil conservation measure is positively related to land holding size. Belay (1992) observed that all farmers that rejected soil conservation structures were those that had farm size in the lowest categories (cultivating less than 0.33 ha).

Tab. 9: Household heads and their farm size.

Farm size (ha)	Implementation of soil conservation				Total sample (n = 120)	
	Yes (n = 74)		No (n = 46)			
	Count	%	Count	%	Count	%
Less than 1	41	55.4	37	80.4	78	65.0
1.0 -2.0	27	36.5	8	17.4	35	29.2
2.1 -3.0	6	8.1	1	2.2	7	5.8

Source: Field survey, 2011.

7.4 Farming system in the study area

Shortage of farm land is acute in Danecho Mukere and Welia kebeles where farm size dropped to 0.13 ha. In the study area there is no more scope of expanding farm lands since the tillable lands are already intensively cultivated. Land use competition is very obvious in the denser gentler slopes, where farm sizes are smaller. Home stead farm plots are shared by various perennial and annual crops, pasture land and for the planting of trees. The farming system practices in the study area are traditional, small farming involving a subsistent production of crops and livestock. Perennial and annual crops are grown in the study area. The perennial crops include enset, coffee and chat. The annual crops include barely, wheat, maize, beans, teff, and cabbages. The main food crops include, enset, barely, wheat, maize, cabbage. The main cash crops include chat, eucalyptus tree, and other food crops. The land allotted to cash crops is increasing rapidly. Altitude, farm size and top soil depth govern the variation of crops. While the 'Nekala' Shallower eroded upland soils grow a smaller variety of crops, especially enset. The 'Rebeka', low land fertile soils grow various types of food and cash crops Male household heads engage themselves in the preparation of the farm, in the planting, ploughing, sowing and weeding and harvesting of crops (Tab. 10).

Tab. 10: Cropping seasons for the four main annual crops grown.

Crop type	Land preparation	Sowing	Weeding	Harvesting
Maize	Jan - Mar	Mar - Apr	Jun-Aug	Nov - Dec.
Wheat	Feb - Apr	May - Jul	Jul-Aug	Nov - Dec
Barely	Mar - Apr	Jun - Jul	Aug	Nov - Dec
Teff	Feb - Apr	Jun - Jul	Jul-Aug	Nov - Dec.

Source: Field survey, 2011.

The farm plots were prepared mainly by using a hoe for enset, chat or "kofero" with a two pointed tips and ox-drawn plough. There was a high shortage of oxen in Danecho Mukere kebele. Enset plant is very important food crops and harvested for food after 6 to 8 years. By products of crops, enset leaf, maize stalks, and hay are used mainly for the purpose of forage and house construction.

7.5 Number of parcels of plots

Due to high population pressure in the study area a land fragmentation is very high. Accordingly, the survey result shows that the mean number of parcels of land is 3.45. The number of parcels of lands as a whole varies from 1 to 8 for the sample respondents. When respondents asked about the contiguity of their land holding, 96.7% of them, answered, their landholding was not contagious.

7.6 Distance of the farm plot

It was found that distance between the farm land and a homestead is an important factor in the use and maintenance of soil and water conservation structures. The survey result shows that the average walking time from the homestead to the farm land is 23 minutes for the total sample households. There were also farm plots that took more than an hour. The total numbers of farm plots that take such a time were found to be only two (Tab. 11).

Tab. 11: Average time required by farmers to travel for their farm plot.

Time required in minutes	Soil conservation practices				Total sample (120)	
	Implemented farmers (74)		Not implemented farmers (46)			
	Count	%	Count	%	Count	%
Less than 20	37	50.0	23	50.0	60	50.0
20-40	28	37.8	18	39.1	46	38.3
41-60	8	10.8	4	8.7	12	10.0
Above 60	1	1.4	1	2.2	2	1.7

Source: Field survey, 2011.

7.7 Economic characteristics - work status

During the field survey household heads were asked to state their work status. According, 60.9% of them were depend on on-farm activities as their means of living. Other respondents were based on off-farm and other remittent income (Tab. 12).

Tab. 12: Distribution of household heads by their work status.

Work Status	Count	%
On-farm	73	60.8
Off-farm	39	32.5
Other	8	6.7
Total	120	100

Source: Field survey, 2011.

7.8 Income

Respondents in the study area were asked to state their annual income. Accordingly, as the survey revealed that the mean annual income of respondents was 4657 and the minimum and maximum incomes were about 600 and 24,000 birr respectively. Respondents who have annual income of greater than 10,000 birr were only 6.7% from the total. The majority of respondents were getting annual income less than 10,000 birr (Tab. 13).

Tab. 13: Respondents by annual income.

Annual Income (birr*)	Count	%
Less than 10,000	112	93.3
10,000-20,000	6	5.0
20,000-30,000	2	1.7
Total	120	100

Source: Field survey, 2011 (***** 1USD = 17.5 Birr, at February, 2011).

7.9 Off-farm economic activities

In general, the relationship between off-farm income and continued use of soil and water conservation is poorly understood (Kessler 2006, cited in Fikru 2009). Off farm activities may have a negative effect on the implementation and maintenance of conservation practices due to reduced labor availability. More environments of the farmer and family members may lead to off-farm activities and may limit the time spent on their farm land; the family is discouraged from being involved in construction and maintenance of soil conservation structures. On the other hand, off farm activities can be a source of income and might encourage investment in farming and soil conservation practices.

As shown in Tab. 12, from the total sample households, about 32.5% involved in off-farm activities and nearly 23% of the implemented farmers were engaged in off farm activities. This shows that better access to off-farm activities reduces or encourages farmer's interest to invest on soil conservation structures. However, the t - test for equality of means between off- farm incomes of those who apply (N=17) was not significantly different from those who didn't apply (N=21, d.f= 36, P=0.57). However, the amount of income generated from off farm activities is not significantly associated with the use of conservation practices. Tenge et al (2004) found out that the involvement in off-farm activities negatively influenced the implementation of soil conservation measures. Pali et al, (2002) found different results in Uganda, where farmers with off farm activities were used better, implying that the off- farm income was used as a source of cash to invest in soil conservation practices.

Socio-economic variables such as income assumed to affect the continued implementation and maintenance of soil and water conservation practices. The data have presented in Tab. 14 shows that most of the respondents who were implemented and not implemented, earned annual income below 10,000 birr. However, as the survey result showed the Chi-square test for the relationship between the use of conservation structures and income variables of respondents (x^2=2.8, at P > 0.05, d.f =2) shows no statistical significance, as far as annual income of respondents is concerned.

Tab. 14: Income of respondents by implementation of soil conservation practices.

Annual income in birr	Soil conservation				Total sample (120)	
	Implemented farmers (74)		Not implemented farmers (46)			
	Count	%	Count	%	Count	%
Less than 10,000	68	92.0	44	95.7	112	93.3
10,000 -20,000	5	6.8	1	2.2	6	5.0
20,001-30,000	1	1.2	1	2.1	2	1.7

Source: Field survey, 2011.

7.10 Soil conservation practices in the study area

Farmers' willingness to use soil conservation practices is largely determined by their knowledge of the problem of soil erosion. The results of the field survey show that about 70% of the farmers recognized soil erosion problems, and were of the opinion that conservation was necessary. Rill and gully erosion were the dominant forms mentioned by 76% of the respondents.

To prevent the problems of soil erosion in the area farmers applied various traditional and improved soil and water conservation measures. Before the intervention of the Productive Safety Net Program (PSNP) farmers in the area were practicing the indigenous methods. Improved soil conservation methods are brought to the area very recently by the funded partners with Woreda Agricultural and Rural Development Office in collaboration.

Until recently, indigenous soil and water conservation practices have often been ignored or underestimated by DAs, researcher's conservationists and government staff (IFAD 1992). Whereas, surveying both methods help us to understand farmers' way of thinking about the intervention of the practices (Hudson 1992) Various erosion control methods used in the area include, plantation of trees, application of manure, cut off drains, soil (stone) bunds, fallowing, contour ploughing drainage ditche and leaving crop residues on the field. The most important conservation structures widely used in the area include, fallowing, distribution of manure and soil (stone) bunds.

Fallow land is a traditional practice of leaving the crop land uncultivated for one or more years for the purpose of recovering soil fertility and minimizing soil loss. About 24.2% of the respondents have applied fallowing as a soil conservation measure. This method is used mainly Aratber Mukere and Anshebeso kebeles, where land is plentiful. However, its application is becoming lesser in densely populated than that of other kebeles, because farmers need the land to grow crops every year.

Application of manure in the study area is used by many farmers (21.7%) in order to improve the fertility of the soil. Manure consisting of animal dung and urine, is the best form of organic fertilizer. Farmers used manure mainly near the homestead. During the focus group discussions with key informant and Das, farmers (especially, those who were poor) have increased the use of manure applied because of the high current price of inorganic fertilizers.

Soil (stone) bund is an embankment or ridge built across a slope along the contour. Soil bunds are made of soil or mud. On moderately sloping areas the farmers construct the soil bunds for erosion control. On steep eroded bare lands stone terraces are most used structures in study area. As it is stated by key informants during focus group discussion the stone terraces are considered effective in erosion control in steeply areas (Fig.4).

In the study area about 10.8% of the respondents have constructed soil and stone bunds (Tab. 15), in the common eroded lands especially around the mountainous area, farmers were constructing bunds because of the cash they would earn from a safety net program.

Fig. 4: Stone bunds are common on steep slopes, Anshebeso.
Source: Photo by author, Jan. 2011.

Contour ploughing is a practice of tilling the land along the contours of the slope in order to reduce the runoff on a steep sloping land. It is used separately or in combination with other conservation structures such as plantation trees and cut- off drains. In the study area from the sample farmers about 13.3% applied the structure in combination with cut off drain (Tab. 15); it is carried out using the ox-drawn plough. Hence, it is part of the normal farming activity; it needs no extra labor and time for construction.

Tab. 15: Indigenous and improved soil conservation structure applied by respondents.

Types of soil conservation structures	Indigenous soil conservation structure	Improved soil conservation structure	Total	
			Count	%
Contour plowing and cut off-drain	+	-	16	13.3
Soil /stone bunds	+	+	13	10.8
Fanya juu	-	+	5	4.2
Cutoff drains	+	+	6	5.0
Planting of trees	+	+	9	7.5
Fallowing	+	-	29	24.2
Leaving crop residues	+	-	6	5.0
Application of manure	+	-	26	21.7
Drainage ditches	+	-	10	8.3

Source: Field survey, 2011.

Trees and other non–crop plants such as sisal euphorbia and eucalyptus are planted along the contour sometimes together with other conservation practices (Fig. 5). This type of conservation method is applied by 7.5% of the respondents in order to reduce runoff and conserve the soil and water round the root of the plants. Indigenous and newly introduced trees and shrubs are planted on over used eroded lands to make the land fully productive again. In certain areas, common highly degraded lands are closed off to livestock to protect it from grazing and planted with trees for regeneration.

Drainage ditches are one of the widely used soil conservation practices in the study area and also known as traditional ditches. These are micro-channels constructed on

cultivated farms to drain off excess water and control soil erosion. Out of total respondents, 8.3% applied indigenous drainage ditches. These are low cost measures in which construction is part of the normal ploughing activity. However, unlike the plough furrows, the ditches are made wider and deeper in dimension and usually run diagonally across the field (Fig. 6). Locally farmers in study area, call the drainage ditches “Boye”.

Fig. 5: Plantation of Sisal and Euphorbia, D/Mukere.
Source: Photo by author, Jan. 2011.

Fig. 6: Indigenous drainage ditches, Datewezir.
Source: Photo by author, Jan. 2011.

Cut off drains are one of the physical structure constructed by digging the soil deep in order to divert the runoff before reaching the farmland. The survey results show that 5% of the respondents use cut off drains and another 13.3% used a mix of cut-off drains with contour ploughing. The farmer constructed such structures to prevent loss of seeds, fertilizer and soil due to excessive run–off coming from uplands and

dispose the excess water for the field. However, according to farmers' opinion, through time most of these structures are accelerating soil erosion. During a transect walk with DAs gullies associated with the construction of these structure especially, between the boundaries of plots, were commonly observed.

Leaving crop residues on the field after harvest is another traditional practice used by the farmers in the area. The survey results show that only 5% of the farmers are implementing this type of measure to improve fertility of the soil and there by protect soil from erosion. During the transect walks with key informants, it has been observed that crop residues left on the field in Gewo high altitude areas. However during the discussion with the focus groups, it was noted that because of shortage of animal feed and roof cover for hut, most of the farmers used the crop residue for off plot purposes.

Fig. 7: Soil bunds in Danech.
Source: Photo by author, Jan. 2011.

Fanya juu terraces, an improved soil conservation structures, are made by digging a trench and throwing the soil uphill to form an embankment and over time creates sloping bench-like terraces (Fig. 7). The survey results show that 4.2% of the respondents have used these structures on their fields. Respondents applying these structures explained the advantage of the structures as follows:

- Bunds hold water and allow it to soak in to the ground reducing run off and causing gullies
- Soil gradually build up behind the bunds producing a bench terrace
- This can be built by an individual or by a group
- Bunds can be used to produce high yield and produce animal feed.

8. Bio-physical Factors in Relation to Soil Conservation Practices Farmers' Perception of Soil Erosion as a Problem

Farmer's awareness about the problem and causes of soil erosion as well as its consequences will help to motivate farmers to use soil conservation practices. Accordingly, as the survey result showed 70% of the interviewed farmers reported from moderate to very severe soil erosion problems on their farmland. While 30% of them responded that the problem is minor, because most of their farm land is found on gentle slopes (Tab. 16).

Tab. 16: Farmers' Response to Soil Erosion Problem by Degree of Severity.

Degree of severity of erosion	Soil conservation practices				Total sample (N = 120)	
	Implemented (74)		Not implemented (46)			
	Count	%	Count	%	Count	%
Minor	12	16.2	24	52.2	36	30.0
Moderate	27	36.5	8	17.4	35	29.2
Severe	21	28.4	11	23.9	32	26.7
Very severe	14	18.9	3	6.5	17	14.1
Total	74	100.0	46	100.0	120	100.0

Source: Field survey, 2011.

The chi-square result (X^2=19.06 at P< 0.05 d. f=3) also indicated the existence of significant association between the application of conservation measures and severity of soil erosion problems.

9. Causes of soil erosion and decline productivity

It can be seen that the level of soil fertility is very high on flat land as compared to the other slope degrees. It has also been observed that the steeper the slope the lower the fertility of soil, indicating the presence of higher erosion on very steep slopes. Farmers with poor soils or plot with low fertility are more involved conservation work than those who have fertile land. The farmers, who have very fertile lands, possibly do not see the negative effects of erosion on their plots in the short term. Out of the total respondents 53.3% expressed the opinion that the loss of soil from cultivated fields reduced the depth of the topsoil and led to a reduced production potential.

The slope of the farm land is highly related to the degree of involvement in conservation activities. Farmers living on steep slope are involved more in the continued use of conservation measures than those who own flat or gently sloping farm lands. About 58.4% of respondents expressed their farm land slope, moderate to steep (Tab. 17). The chi-square result of the survey (X^2 =17.27 at P< 0.05 d. f = 3) showed the existence of association between the slope of a farm land and implementation of soil conservation practices. Thus, the hypothesis that states slope of a farm plot affect soil conservation practices positively is accepted. A similar conclusion was also forwarded by Aklilu (2006) the effect of steep slopes on the implementation of the stone terraces is due to effectiveness of the measures for erosion control.

Farmers have been asked to indicate the productivity of their farmland overtime, 38.3% of them indicate the yield in unit area, as decreasing, 16.7% felt there was no change and 45% said it was increasing (Tab. 18).

Tab. 17: Slope of cultivated lands of respondents.

Degree of steepness of plots	Soil conservation practices				Total sample (N = 120)	
	Implemented (74)		Not implemented (46)			
	Count	%	Count	%	Count	%
Flat /no slope/	6	8.10	11	23.9	17	14.2
Gentle	14	18.9	19	41.3	33	27.5
Moderate	43	58.1	13	28.3	56	46.7
Steep	11	14.9	3	6.5	14	11.6

Source: Field survey, 2011.

Tab. 18: Farmers' Response to the Yield, Farming and Soil Fertility Management.

Farmers response to	Respondents (N=120)	
	Count	%
Yield in unit area		
decreasing	46	38.3
unchanged	20	16.7
increasing	54	45.0
Size of agricultural land cultivated over time		
decreasing	79	65.8
unchanged	32	26.7
in creasing	9	7.5
Current land holding to support the family		
insufficient	81	67.5
sufficient	36	32.5
Measures taken to enhance the declining fertility of the farm land		
crop rotation	107	26.1
shift to other land	2	0.5
using manure	74	18.0
expand the farm land	6	1.5
use fertilizer	104	25.4
change land use type	11	2.7
fallowing	42	10.2
others	64	15.6

Source, Field survey, 2011.

Tab. 19: Farmers Response to Causes of Soil Erosion and Decline Productivity.

Farmers response to	Respondents (N= 120)	
	Count	%
Causes of soil erosion		
overgrazing	4	3.3
poor agricultural practice	11	9.2
over cultivation	22	18.3
excess rain	62	51.7
cultivation of steep slope	21	17.5
Cause of productivity decline		
frequent cultivation	54	23.2
soil erosion	81	34.8
unreliable rainfall	66	28.3
high price of fertilizer	4	1.7
other	28	12.0
Reasons for the size of agricultural land decline		
family (population) increase	56	57.0
it was sold due to poverty	36	36.7
land degradation	6	6.3

Sources: Field survey, 2011

In the study area it has been noticed that soil erosion is the main reason for decreasing productivity in the yield. Those who indicated that the productivity was decreased were mentioned soil erosion (34.8%) as a main reason. The local farmers generally believe that the major causes of soil erosion in their area include erosive rain (51.7%) over cultivation (18.3%), and cultivation of steep slopes (17.5%) (Tab. 19).

10. Soil fertility decline and management practices

Respondents in the study area asked about soil fertility changes on their crop land, most of the interviewed farmers in Danecho-Mukere, Welia and Anshebeso kebeles indicated that soil fertility has declined over the past decades. The major reasons mentioned by the farmers, for the decline in the ranking order were severe soil erosion, frequent cultivation, tilling of steep slopes and poor agricultural practices. In study area, farmers use several practices for soil fertility maintenance. As, it is indicated in Table 16 farmers used manure (18%), crop rotation (26.1%), fallowing (10.2%), application of chemical fertilizer (25.4%) and other erosion control related measures (15.6%). These are the most important soil fertility management practices in the area.

The main crop rotation system is the cultivation of cereals, legumes and tuber crops alternatively, In addition practicing fallow, forms part of the rotation system.
Farmers also use chemical fertilizers to maintain soil fertility. However, there were significant differences in the use of chemical fertilizers. Most of the Arat ber Mukere, Gewo area of Danecho Mukere, and lower altitude area of Anshebeso, farmers prefer to use chemical fertilizers instead of manure.

11. Problems related to soil conservation measures

The major problems related to conservation structures mentioned by the respondents include, source of pests, inconveniency during ox ploughing, reduction of farmland, labour intensiveness, difficulty in implementation, and costliness. During field survey it was recorded that about 31.7% of respondents indicated soil (stone) bunds reduce farm lands, 23.3% responded inconveniency during oxen ploughing and 17.5% revealed labor intensive.

The application of cut-off drains and water-ways is very important in combination with other structures especially in highlands and heavy rainfall areas. But because of the requirement of large labor and technical difficulty for implementation, they have been applied in a limited scale in the study area when compared with soil and stone bunds.

Regarding cut-off drains, 36.7%, 28.3% and 21.7% of respondents reported problems of costly, implementation difficulty, and labour intensiveness, respectively (Tab. 20). Concerning, water-way, 39.2%, 35.8% and 11.7% of the respondents indicated that it is costly, difficult to implement and labour intensive, respectively. As to Fanya juu-32.5%, 24.2% and 22.5% of the farmers responded that it reduce farm lands, require large labor, and inconveniency during oxen ploughing (Tab. 20).

Tab. 20: Farmers' response to the problems of conservation structures.

Identified problem	Farmer's response to selected structures (%)			
	Stone /soil bunds	Cutoff drains	Water ways	Fanya Juu
Costly	4.2	36.7	39.2	1.7
Difficult to implement	8.3	28.3	35.8	10.0
Labour intensive	17.5	21.7	11.7	24.2
Difficult to turn oxen	23.3	3.3	5.0	22.5
Reduce farm land	31.7	9.2	6.7	32.5
No problem at all	-	0.8	1.7	1.7

Source: Field survey, 2011.

Farmers were also asked to compare the improved conservation practices with the traditional ones. About 70% of the respondents indicated that improved conservation practices perform better in retaining soil from being eroded than the traditional ones (Tab. 21).

The farmers were asked also what their intentions regarding using the improved soil conservation technologies in the future, 88.3% of the respondents expressed their commitment to use and continue applying these structures. Except some factors that limit their acceptance, it can be concluded that the improved soil conservation structures were widely acknowledged and accepted as effective measures against soil erosion and as effective measures against soil erosion and as having the potential to improve land productivity. Though they enthusiastically expressed the belief they could control soil erosion on their farm plots, yet the constructed conservation structures in the farm lands were not maintained and some of them totally destroyed.

Tab. 21: Farmers' response to the effectiveness of improved conservation structures.

Responses	Sampled Respondents (N =120)	
	Count	%
Less effective than the traditional	26	21.7
The same as the traditional	10	8.3
More effective than the traditional	84	70.0
Interest to use and continue improved soil conservation measures		
Yes	106	88.3
No	14	11.7

Source: Field survey, 2011.

12. Institutional support related factors - contact with development agents (DAs)

Extension services are a major source of technical information for farmers and are measured by the number of contact a farmer had with development agents. So, a contact to development agents increases their adoption decision. According, those farmers who have highly potential access to DAs are more likely to use soil conservation practices than their counter parts that did not. Therefore, it was expected that sample household have an access to extension services through continuous supervision of extension personnel, attending field days demonstrating of better farming practices and training. However from the total respondents, 43.3%, and from those who were applied the measures, 17.6% of them have indicated that they have no access to extension services. Moreover 48.8% of sample farmers have been visited by DAs once per month, those areas near to the main

asphalt road. But, this visit mainly focused on crop production and other agricultural activities. Whereas the DA visit on conservation activities was very limited though it was better than before (Tab. 22 and 23).

Tab. 22: Distribution of respondents by frequency of the das visit.

Frequency of visit per month	Soil conservation practices				Total samples (N = 120)	
	Implemented (n = 74)		Not implemented (n= 46)			
	Count	%	Count	%	Count	%
Once	38	51.2	4	8.7	42	35.0
Twice	9	12.2	2	4.3	11	9.2
Three times	9	12.2	-	-	9	7.5
Irregular visit	9	12.2	15	32.6	24	20.0
No visit	9	12.2	25	54.4	34	28.3

Source: Field survey, 2011.

As the field survey indicated, the variable considered in the extension service provision factor did not show a significant relationship /at $P < 0.05$ at d.f =1) with the continued use of soil and water conservation practices. This is possible because the extension support provided is not aimed at the promotion of conservation practice. This is in line with the study by Chomba (2004) explained that a large proportion of farmers who had contacts with agricultural support programs did not continue improved practices. This explanation also presents that it is not enough to have extension support but the aim or purpose of the extension service should also relate to the continuation of conservation work.

Tab. 23: Farmers' Response to Institutional Support Factors.

Institutional support factors		Responses (n = 120 for each)	
		Count	%
Do you have access to extension support	Yes	68	56.7
	No	52	43.3
Have you attended training related to soil conservation practices	Yes	62	51.7
	No	58	48.3
Land tenure system from	Renting	13	10.8
	Inheritance	101	84.2
	Allocated from kebele	6	5.0

Source: Field survey, 2011.

Training is an important part of disseminating a given agricultural technology in general and soil conservation practices in particular. In the study area there are efforts made by Woreda Agricultural and Rural Development Office to provide training to the farmers about soil and water conservation practices. It was recorded during field survey that 51.7% of the respondents received at least once in the last ten years. However, the majority of farmers/respondents/ expressed that they didn't apply to know how gained from the training (Table 23).

In the study area farmers have three major sources of land, or access to land, namely receiving from the kebele, inheritance from the parents and renting systems or share cropping system. It has also recorded during field survey, that most sample households-obtained their farm lands from their parents. From the total number of farm plots of the sample households, 84.2% were inherited, 5% received from the kebele administrators and 10.8% obtained plots through renting. During the focus group discussion with DAs and key informants, in the area it has been assured that, the case of land insecurity is not significant problem to influence soil conservation

practice. They said that there is no excess land and as a result there is no problem of redistribution. This by itself settles the problem of insecurity. Rather farmers become more secured than ever after the implementation of land registration and certification program in the woreda. About 91.7% of respondents were registered and 90.8% were given their land certificate.

13. Conclusions

It is generally recognized that the Ethiopia highlands experience severe rates of land degradation in the form of soil erosion and nutrient depletion that this has constrained agricultural development and food security in the country.

This study was aimed at identifying the current soil conservation practices in Southern Ethiopia and to assess the major constraints and opportunities for better conservation intervention. Soil conservation activities by the local farmers are faced with several problems. Though farmers have a considerable knowledge of land degradation problems and able knowledge of land degradation problems and apply a range of various conservation practices, their activities are largely constrained by problems that exist at the different levels of decision– making.

The outcropping of farm lands, formation of rills and gullies, decline of fertility and productivity of soil are some of the identified indicators of soil erosion at the study area. On the contrary, some considerable numbers of respondents were not aware of the indicators like the decline of the depth of soils, soil fertility, changing and failing of crops grown as indicators of soil erosion.

Torrential rain, continuous cultivation, steepness of the topography, land fragmentation, population pressure and improper farming were identified primary causes of soil erosion in the study area. These in turn resulted in migration of the productive force of the study area to the towns and big cities.

The most important conservation proactive carried out by farmers as coping strategies to recover the degraded and eroded lands include afforestaton of both indigenous and introduced trees, terracing, construction of check dams closuring and fencing of farm plots, manuring, crop rotation and using agronomic and other structural measures. But lack of vision, poverty and awareness, carelessness, the majority of farmers did not put the methods in to practice. As the result of the study reveal, indigenous soil conservation technologies are considered as effective methods of conservation. Measures such as contour ploughing, manuring, crop rotation, crop residue, cut off drains and ditches as the paramount importance to increase soil fertility, increasing the productive capacity of soil and in arresting soil from erosion. On the contrary, a significant number of the total respondents did not perceive and aware of the effectiveness of such above mentioned indigenous soil and water conservation measure and also most of the farmers, didn't aware of the practices of mulching, mixing and strip-cropping.

Manuring is one of the indigenous soil and water conservation practices. The trends of practicing among the individuals in different agro-climatic zones are varied. In the three middle and high altitude sample kebeles it has been used for fertility enhancement and as fuel. But in Aratber kebele, the majority of the farmers were using chemical fertilizers instead of manure which they used it as fuel. The trends of practicing the modern structures between were different in Danechomukere, Welia

and Anshebeso kebeles. Most of the farmers were benefits and practicing of structures such as, soil (stone) bunds, fanya juu and some artificial water ways very well in their farming and grazing plots. These were witnessed as effective and efficient for recovering soil fertility, increasing productivity and decreasing magnitude of erosion. On the contrary, the majority of sample farmers in the Aratber Mukere and in the upland areas of Danecho Mukere kebele in Gewo sub–kebele, especially females and the poor farmers have not practicing and maintaining the structures on their plots.

Traditional administration and social institutions plays essential role in maintaining strong social linkage and cooperative labor environment. Now-a-days the role as played by the traditional administration and social institutions greatly reduced and consequently the social harmony and the degree of cooperation among the people was threatened. This in turn seriously affects the involvement of the community in the soil and water conservation practices with the improved ones and the like; a weakening trend in the overall soil and water conservation practices has been revealed by the study. This weakening trend of the practices has placed their sustainability under serious challenges.

The study has revealed very low and decreasing participation of youth in soil and water conservation practices and deterioration of social traditions which are important for the practice. As it is known, the involvement of the youth is so vital that it plays crucial role to the sustainability of certain endeavor. Nevertheless, this is not happened in the study area.

Soil and water conservation practices by nature are labour intensive. The prevailing economic situation pushes away people from participating in the practices. Thus, it can be concluded that the economic factors have played their own role to the deterioration of soil conservation practices in the study area. The roles of the institutional intervention to the problem in the study kebeles were completely different. In Gewo-sub kebele, high altitude area (elevation around 3000 m) the role of local officials and DAs to the intervention of soil erosion and land degradation was very weak and far behinds or forgotten. Local officials and DAs were witnessed that they were incapable to mobilize, convince the community and gave no attention on the immediate soil erosion problems. As a result of this, the majority of farmers did not care and gave due attention to the environmental hazards. Especially, DAs in this area didn't visit at all, as the farmers responded. The performance of DAs, and their changes and the real problems of the farmers were not studied, monitored and evaluated in deep. From this, it is possible to conclude that the institutional support system given from the Woreda Agricultural and Rural development office and DAs to the practices in the study area, especially remote areas from the Woreda headquarters in particular and the whole sample kebeles in general was very weak that it could not help to integrate the traditional practice with the modern ones.

The specific activities to be done to improve the participation of the youth in the conservation activities could include:

1. To organize the youth in to self supporting organization so that they can have more opportunities to discuss on their conditions and share experience with adults.
2. To encourage the youth to learn the necessary skills and participation in the conservation practices.

3. As it has been talked during focus group discussion, that the expansion of the use of 'chat' was also identified as another challenge to the participation of the youth in particular in the practices. This is due to the fact that with the expansion of "chat" the youth and adults spend most of their time taking in or chewing this green material. So, this habit should be controlled.
4. To promotes the voluntary effort of NGOs on indigenous knowledge system and local practices.
5. As far as possible the Woreda Agricultural and Rural Development Office should give attention to the local soil conservation practices beginning from plan formulation to budget allocation. The development agents should frequently be supervised, encouraged and motivated through workshops, in service training and monetary rewards. The Woreda Agricultural Office should also be able to show its attention to the soil conservation practices in some practical way. Considering this as an incentive the farmers could be motivated to frequently construct and maintain the structures in their plots.
6. The conservation practices in the woreda can be further promoted if they are carried out in conjunction with other developmental activities. These include education of family planning, provision of with reasonable costs. Priority of these services and delivery of items may be given to those farmers who continuously construct and maintain their conservation structures.
7. Local or any responsible administrative leaders and farmers should draw rules and regulations that govern them to protect soil erosion and to use land resources wisely. Integrating soil conservation practices with the currently working farming systems.

Finally, suggestion has been forwarded for further research to strengthen the findings of the study pertaining to the institutional support related factors that impede the continued use of soil conservation practices in the study area.

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STATE OF SOIL CONSERVATION PRACTICES IN SILTI WOREDA, SOUTHERN ETHIOPIA

Summary

Ethiopia highlands experience severe rates of land degradation in the form of soil erosion and nutrient depletion that this has constrained agricultural development and food security in the country. The study was aimed at identifying the current soil conservation practices in Southern Ethiopia and to assess the major constraints and opportunities for better conservation intervention. The most important conservation proactive carried out by farmers as coping strategies to recover the degraded and eroded lands include afforestaton of both indigenous and introduced trees, terracing, construction of check dams closuring and fencing of farm plots, manuring, crop rotation and using agronomic and other structural measures. But lack of vision, poverty and awareness, carelessness, the majority of farmers did not put the methods in to practice. As the result of the study reveal, indigenous soil conservation technologies are considered as effective methods of conservation. Measures such as contour ploughing, manuring, crop rotation, crop residue, cut off drains and ditches as the paramount importance to increase soil fertility, increasing the productive capacity of soil and in arresting soil from erosion.

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The study revealed very low and decreasing participation of youth in soil and water conservation practices and deterioration of social traditions which are important for the practice. As it is known, the involvement of the youth is so vital that it plays crucial role to the sustainability of certain endeavor. As soil and water conservation practices by nature are labour intensive. The prevailing economic situation pushes away people from participating in the practices. Thus, it can be concluded that the economic factors have played their own role to the deterioration of soil conservation practices in the study area.

HOW GIS COULD BE USED AS A TOOL TO ENHANCE THE TOURISM SECTORS? A CASE STUDY OF ERITREA

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Abstract

How GIS could be used as a tool to enhance the tourism sectors? A case study of Eritrea

The tourism phenomena have attracted not only Eritrea, but almost the entire world. Tourism is being recognized as a source of economic benefits to a country by a way of gaining foreign exchange and employment generation on a truly international scale. It also makes a tremendous contribution to the improvement of social and political understanding. Though, Eritrea's tourism industry is currently rated as one of the lowest foreign exchange earners in the country, the potential of tourism industry to become a leading source of foreign exchange earnings in Eritrea has not been far realized. It is evident that the country's tourism potential has not been fully explored and marketed. Though several attempts have been made to enhance its rapid development, but these efforts have suffered some major drawbacks due to lack of a comprehensive spatial database of tourism facilities and destinations. By using GIS, a common platform can be defined to provide a spatial databank with integrated multimedia features. This paper discusses the use of GIS as a tool for archiving, analyzing, and displaying of tourism information to enhance the tourism sectors in Eritrea.

Keywords

GIS, Tourism, Eritrea

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1. Introduction

Eritrea is a land of startling contrast from sweltering heat of the Danakil Depression to the cool but stark mountains of the highlands. Although Eritrea possesses tourist attractive natural landscapes, archaeological and historical sites, it gets little benefits from the tourism sector. She offers most distinctive destination for the discerning tourists.

Eritrea is a beautiful country with fascinating treasure of history comprises most of the Axumite Kingdom, which was one of the great four world powers of ancient time, where one can visit the evidence of ancient civilization. It is a wonderful land of nature and culture, a land that has a heritage that stretches back to the far distant days of human history. The legacy of Eritrean history, monasteries, ancient sites and monuments, dense archeological sites, material culture of various type and rock art sites are reminders of glorious past that goes back to three millennium years. Eritrea owns a divers natural features, Forest of Semenawi Bahri (green belt), Danakil depression (300 feet below sea level), big trees like Ficus Vista, off shores Islands, coral reefs and beaches along the coastal line which extends 1216 kms. The above mentioned histo-geo-archaeological sites of this country have great potentials for the development of tourism industry.

The Government efforts are underway to support effective exploitation of these tourism potentials endowed by nature with the appropriate use of GIS and multimedia tools.

2. Background

In the discovery of the tourism potentials in Eritrea, many attempts have been made to enhance its rapid development. However, these attempts have experienced some major drawbacks because of the followings:

1. Difficulties in updating graphical tourist guides and maps.
2. Lack of digital spatial database of tourism facilities and destinations.
3. Inadequacy of transportation and access routes to the tourist sites.
4. Most of the hotels and restaurants are found in the big towns and such facilities are almost non-existent in remote tourist centres.
5. Lack of comprehensive information base on the Internet.
6. Lack of skilled manpower and inadequate motivation for effective marketing.

It is against this background that a tourism GIS was designed to investigate how a dynamic spatial data library of tourism facilities with integrated graphical displays could be provided. GIS was chosen as the suitable platform because the location of tourism destinations provided a common denominator to link all information related to the tourism industry. This result was not just a simple digital tourist map but also a multidimensional model of tourism information that could be made available on the Internet.

3. Objectives of the study

The present study aimed at generating a qualitative database for the tourism industry of Eritrea using GIS as a tool. The study has many fold objectives, such as:

- To identify the entire tourist attractive natural and man-made sites in the country and their potential capacity to attract tourists.
- To increase public awareness about the social and economic importance of tourism.
- To identify and analyze the constraints and obstacles that influence tourism development.
- To assess the professional qualification of workers in tourism sector, and
- Finally to provide correct and reliable information base so that it could encourage the scholars, eco-tourists and wildlife specialists to make a further investigation of tourism potentials.

4. Data base and methodology

The present study is mainly based on secondary data. The compiled data on different subjects have been tabulated. Synthesis, perusal, and analysis of data have been carried out wherever it can explain the trend with the outcome of results and facts. Besides, tourism GIS database have been structured to follow a relational database model format. The core of the database, the spatial component was developed by using ESRI ArcInfo software while ArcView software has been used as a front-end development platform for enhanced cartographic presentation and visualization. Multimedia capability has been included by utilizing Avenue programming.

5. The study area

Eritrea is one of the countries in the horn of Africa which covers an area of about 1, 24,000 sq. kms, lies in the north of equator. It sprawls between 12º to 18º north and 36º to 44º east. Eritrea shapes like a hatchet and the handle of the hatchet is on the Red Sea in the east. She is bounded by Sudan in the north and northwest, Ethiopia in the south, Red Sea in the northeast and east, and by Djibouti in the southeast (Fig.1).

Eritrea is a young country with complex series of landscapes and climatic features. Basically, in Eritrea almost there was no tourism industry in the last hundred years. Officially, the first tourism branch office was opened in 1966. Between 1966 and 1973 arrivals of international visitors were more or less consistent. However, the arrivals decreased during 1973 to 1991 period. In the early sixties Eritrea had flourishing tourist industry by the standards of that time (Department of Tourism, MOTIT 1993, 129). Since 1991, there was a considerable increase in tourist arrivals with 12, 576 in 1991 increasing to 416, 596 in 1996. But starting from 1998 visitor arrivals has dropped due to border conflict with Ethiopia.

In Eritrea, there are many tourism sites in different parts of the country and it is also considered as income generator to the GNP. The tourism sites in Eritrea have great ability to attract tourists. However, they are not as they should be. That is why tourists do not visit all the tourism sites because of some unavoidable circumstances; they visit to only some specific areas – mostly Asmara and Massawa.

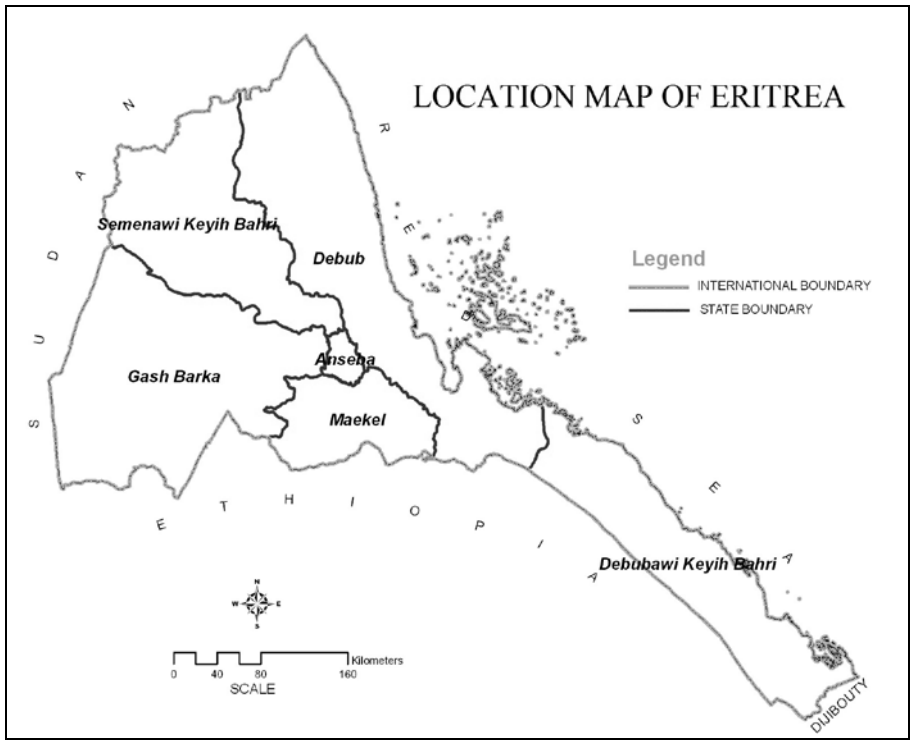

Fig. 1: Location map of Eritrea.
Source: Ministry of Tourism, Eritrea, 2012.

Tourism sites in Eritrea have a long list that includes Nakfa, Debresina, Dahlak Archipelago, Golj, Adulis, Kohayto, Metera, Denakil Depression, Assab, the viewpoint on the Massawa road, Asmara city Museum, Railway Museum, Archaeological sites at Orota, Fort park, Italian and British Cemeteries, the National zoo, Botanic Garden, Ethnographic Museum, Coastal Beach Resort at Gurgusum in Massawa and other resorts at Ras Artau on Buri peninsula, Semenawi National park which offers some spectacular scenery, Hiking lodge, Industrial Museum, Agro-tourism resort of Elabered farm, Halhal Plateau National park, Hot Springs Spa resort at Akwar and Maiwui white water boating on the Setit river, Halhal Akordat hiking trails and Mount Elit-Kunama cultural centre. For the above mentioned tourism sites, the tourism facilities are not yet fulfilled (Fig.2).

The government has a plan for these tourism sites to upgrade and to fulfill the necessary facilities up to 2020 A.D. The above mentioned tourism sites are among the interesting features that make it a unique destination for the international tourists desiring an eventful trip to Eritrea. Undoubtedly, one of the most attractive aspects of Eritrea's ethno- tourism is the colorful and vibrant cultural events and traditional festivities. It is believed that the full tourism potential of this multicultural and hospitable nation is yet to be fully tapped.

So far as the management and promotion of tourism in Eritrea is concerned, there is large number of factors which influences the tourism development in the country. Some of the important factors include the lack of skilled manpower, insufficient

tourism promotion and marketing activities and border conflict between Eritrea and Ethiopia.

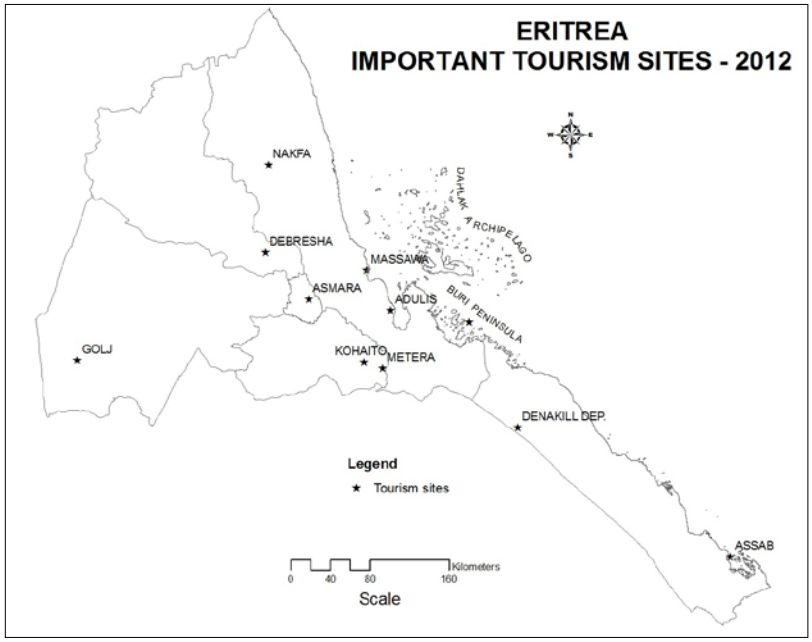

Fig. 2: Eritrea Important Tourism sites.
Source: Ministry of Tourism, Eritrea, 2012.

In Eritrea, the Ministry of tourism had suffered from shortage of skilled manpower. The Ministry had taken some measures to solve this problem. It brought foreign expert from India and Sri Lanka. Moreover, almost all the workers of Ministry were given different informal job training (Tab. 1).

Tab. 1: Educational Qualification of Employees of the Ministry of Tourism.

Level of Education	Number of Employees	Percentage of the Total
M.A.	01	1.923 %
B.A.	12	23.076 %
Diploma	10	19.231 %
12+2	06	11.538 %
12+1	07	13.461 %
9^{th} – 12^{th} grade	15	28.84 %
4^{th} grade	01	1.923 %
Total	51	100.000 %

Source: Ministry of Tourism Personnel Information.

The above table shows that almost one-third of the employees have completed only high school. The number of workers having higher qualifications is relatively few. Most of them have specialization in area (disciplines) other than tourism. However, they took variety of tourism related informal training. Among the informal training courses, which the workers took, includes tourism development, tourism planning,

finance management, travel agency management, human resource management, marketing to tourism, tour planning and management, labour market analysis and public relations etc. Although majority of workers had taken such training, it usually lasted for a short period of time.

Tourism promotion is one of the most important tools for tourism development. The basic function of all tourist promotion is to have an effective communication with the consumer. One of the most important tasks of any national tourist office is the promotion of the country as a destination for the tourists.

Since the starting of the Eritrean tourism sector, Ministry of tourism had employed a variety of promotion techniques. Advertising, sales support and public relations are among the promotion techniques, which were being used by the Ministry. Advertisement of the destinations and tourist products had been carried out by the news papers, magazines, T.V. programmes and Videos. Although it is stopped at this time. The Ministry had been publishing an article of tourism in Haddas Eritrea. Since 1996, Eritrea Horizons, a yearly magazine of the Eritrea tourism industry had consecutively published for three years. This magazine was distributed through the travel agencies, local government offices, Eritrea's Embassies and Councils abroad and by the main office of the ministry. Videos aimed at portraying the Eritrean shipwrecks and other destinations were being displayed on the ERI – TV. In addition to this ministry had also produced three Video films namely Peace at last, the Luul of the Red sea and Journey through Eritrea. These Videos are still kept in Eritrea's Embassies abroad as a means of promotion.

Sales support materials were used as a potential promotional media. The Ministry of Tourism had published around 5,000 brochures. The brochures were mainly aimed at giving general information about Eritrea and particularly Massawa and Asmara. These brochures were distributed through travel agencies, Embassies and Ministry itself.

Although the Ministry had employed different promotional activities, they are yet inadequate for efficient growth of tourism. Because most of them had been used in a limited way. For instance, the magazines and brochures were distributed through some selected institutions. As a result only few people have access to them. In addition to this only local people watched the Video displayed on ERI-TV. These Videos could have been as potential advertising media on popular TV broadcasts such as ALJAZEERA, CNN and BBC. However, such an attempt has not yet been taken place.

Most of the promotional methods were made to convey only mere description of the destinations. Thus, they failed to include detailed information on accommodations prices, communication, transport, health services and other facilities. Since the border conflict with Ethiopia, almost all the promotional activities have been ceased. Moreover, there was no campaign aimed at making the public aware about the importance of tourism welcoming a tourist.

As tourism can prosper only in a peaceful environment, it is highly dependent on peace. Fear is a powerful deterrent to travel. War, unrest and terrorism in the host area (country) create doubt and fear in the mind of the traveler. On the other hand, a peaceful situation of a destination is more conducive for large tourist arrivals. The border conflict between Eritrea and Ethiopia had negatively influenced the trend of

tourist arrivals. Although the wars and security problems were confined to the territories between the two countries, the international tourist arrival had decreased dramatically (Tab. 2).

Tab. 2: Trend of International Visitor Arrivals (2000–2008).

Year	No. of Visitors	Percentage change over the previous years
2000	70354	
2001	113024	60.65
2002	100828	-10.79
2003	80029	-20.62
2004	87401	9.21
2005	83307	-4.68
2006	78678	-55.72
2007	79492	-1.03
2008	69423	-12.66

Source: Ministry of Tourism statistical data.

The above table show the trend of international visitor arrivals from 2000 to 2008. According to the data given in the table, there is great fluctuation in the number of tourists who visited Eritrea from 2000 – 2008. In 2000, the total number of tourist arrivals was 70354, while in 2001, it drastically increased to 113024. But in 2002, the number of tourist arrivals decreased to 100828, which were almost less than 12,196 of the previous year. Again in 2003, the number of tourist arrivals dramatically decreased to 80029 which were almost 20,799 tourists less than the previous year. In the year 2004, there was slight increase in the number of tourist arrivals which was 87401. Again in 2005, the number of tourist arrivals decreased and reached to only 83307 tourists. In 2006, the number of tourist arrivals further decreased and reached to 78678. In 2007, it slightly increased and reached to 79492, and finally in 2008, it again decreased, almost 10,069 tourists declined and reached to 69423.

6. Why GIS is used in tourism?

When making decisions, planning, analyzing the effect of changes, looking for patterns, etc., we may look at maps, tables, charts, lists, graphs and reports, and sometimes it is rather difficult or nearly impossible to pull all these sources of information together and make sense out of them. Geographic Information Systems however, have the capability to handle several kinds of information that can be related to a location or area. For example, hotels and tourist destinations all have one thing in common i.e. location. And since the geographic position of any map feature is unique, it provides a complex link between the different data sets. The result is no longer simple map but a complex multi-dimensional model of information.

Using GIS therefore, it becomes possible to integrate tourism information, visualize complex scenarios, present powerful ideas and derive effective solutions otherwise not possible. Besides, Geographic Information Systems are dynamic, allowing the user to ‘enter’ the map to explore, enquire and analyze geographic locations and the information linked to these locations. Questions like:

- Where is it? (location)
- What is it? (condition)
- What if (modeling)
- What has changed since? (trends)
- How do they occur? (patterns).

All these questions are easily answered within the context of tourism GIS. And these are the most likely questions a potential tourist or investor may seek answers for in order to plan and undertake a trip or to consider to make a potential investment decision.

Also, the capabilities of GIS have made it possible to answer spatial queries using intelligent maps with integrated images, text, tables, and diagrams; and showing shortest paths, location of hotels, tourist sites, price quotations, and so forth.

7. Creation of spatial database

For the development of spatial database the following procedures have been included:

- Acquisition of graphical maps covering Asmara with the coastal beach resort at Gurgusum in Massawa and Semenawi National Park have been taken in great detail than any other parts of the region.
- Determining the reliability of the source maps through the field checking to verify the existence of features and also their relative positions to each other.
- Converting the simple maps into digital maps by digitizing.
- Editing to remove errors.
- In order to establish relationships between different map features, topology is created and
- Lastly, they have been transformed into real world coordinates (Projections).

8. Cartographic development

In order to provide enhanced cartographic representation, the digital maps were further developed by using Arc View GIS software. Labels and suitable graphic symbols have been assigned to the various features for easy categorization, identification and visualization. Thus, a composite tourist map is produced.

8.1 Attribute data creation and multimedia development

Attribute information on the various tourism facilities that were collected from various sources were linked to their respective spatial features. This involved the following steps:

- Data compilation and addition of text information to feature location in tables.
- Editing and development of pictures and images to text labels.
- Images hot linking to their respective feature locations using Avenue scripts.

Lastly, the map of Asmara with the Cathedral Catholic Church and the Coastal Beach Resort at Gurgusum along the coastline of Massawa and Semenawi National Park

that had been developed independently were hot linked to their respective locations on the small scaled map. The following Fig. 3, 4 and 5 show graphic display of information retrieval from the database.

9. Potential benefits of a tourism GIS

An information system that is capable of answering questions about where facilities and resources are located represents enormous benefits. A Geographical Information System with integrated multimedia tools of the type described here could provide tourism information in an integrated fashion and will be of immense benefit not only to the Asmara but Eritrea as a whole. Among the many benefits that may be realized through the system includes intelligent mapping capabilities, analytical capabilities, modeling and prediction and also revenue generation.

10. Intelligent mapping

Unlike other geographic information systems, there are multiple functions of the tourism GIS. From a planning perspective point of view, intelligent and flexible mapping capabilities are the most attractive. It would be convenient for the user of the system to create maps of their own chosen themes, map features are edited to suit particular requirement and purpose and the available information are updated for tourism features. Thus, the tourism GIS have the capability to keep the maps always up to date on the one hand and to create the historic maps on the other hand that may show the situation at some points in history. Apart from this, new sets of data can be created and the digital data from other sources may be intelligently joined with the existing geographic data. Decision makers would be able to obtain comprehensive information to provide realistic assessment of current situations.

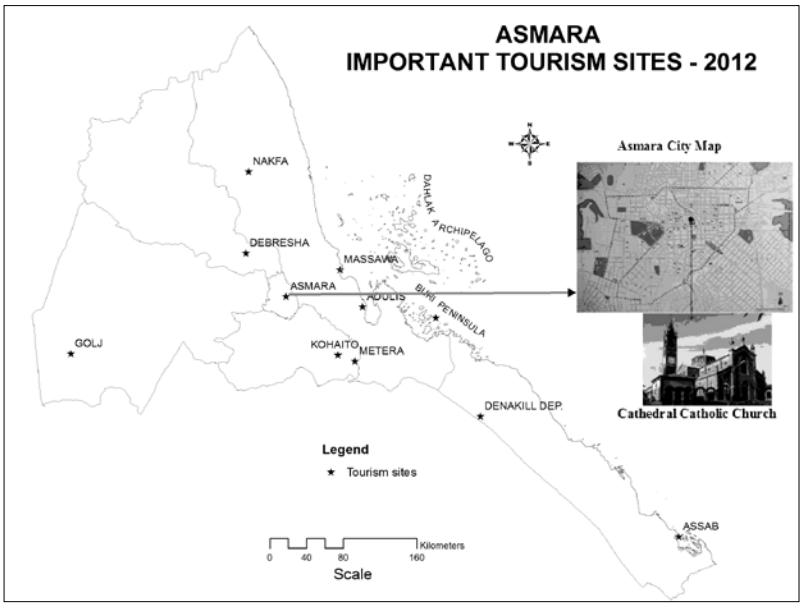

Fig. 3: A Hyperlink showing a concurrent display of graphics and a description of Cathedral Catholic Church.

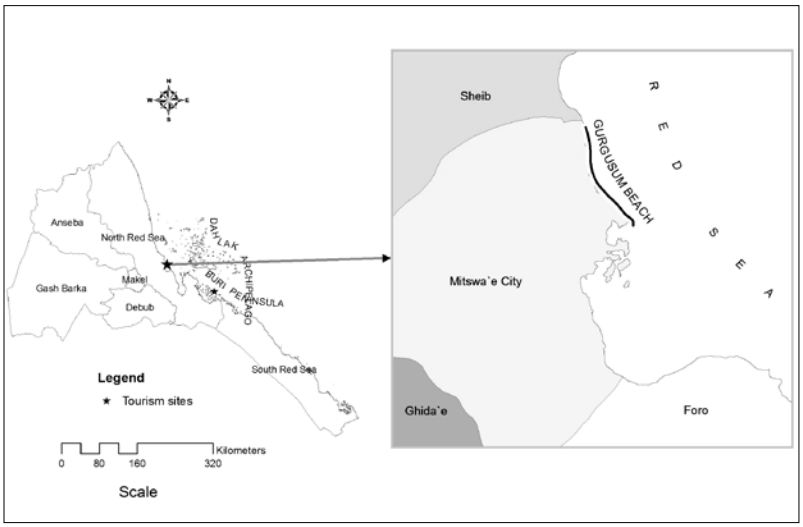

Fig. 4: A Hyperlink showing a concurrent display of graphics and a description of Massawa Gurgusum Beach Resort.

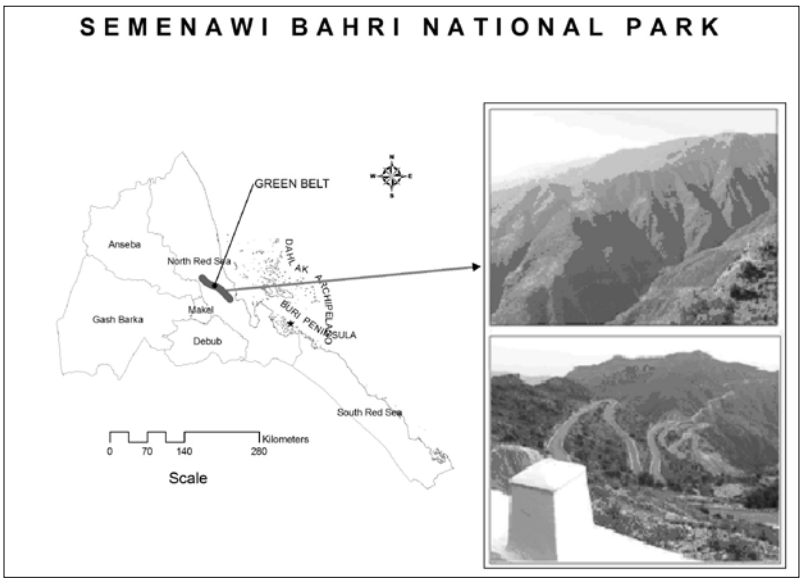

Fig. 5: A Hyperlink showing a concurrent display of graphics and a description of Semenawi Bahri National Park.

11. Modeling and prediction

The aesthetic aspects of a tourism GIS is that future plans, projections and expectations which can be modeled and their overall outcomes on the entire tourism industry thoroughly assessed (in time and space), before they are implemented. It

has great capabilities for modeling the tourism sites in the form of database and map queries. A place where either a new facility is to be located or a new tourism plan is to be developed; everything could be assessed from the computer screen before its implementation.

12. Analytical capabilities

The ability to perform analytical operations is what makes GIS unique. It combines all the analytical capabilities of standard database system with powerful geographic information processing tools. Simple analysis such as statistical summaries (minimums, maximums, means, and sums) and analysis of inter-relationships between various tourism related variables could be carried out in a GIS environment. For example, the data sets of historic monuments and roads could help to solve the problem of finding all the historic monuments along a primary road. The other significant advantage of this analytical operation is in derivative mapping. Thus, it is envisaged that these powerful analytical capabilities would constitute the most important use of the tourism GIS for effective planning, marketing and monitoring of tourism facilities.

No doubt, the tourism GIS is a great asset for the tourism industry because it would provide an advanced platform for marketing Eritrea's tourism destinations and facilities while exposing investment potentials and opportunities. Eritrea's tourism industry could be promoted through the effective marketing as most of the tourists come from the foreign countries and would lead to more revenue generation in the form of foreign exchange earnings. Apart from this, there would be other sources such as revenue derived through advertising and publicity offered for hoteliers and other tourism service providers through the distribution of the system.

13. Conclusion

Despite the charming scenery of natural landscapes, attractive coastal zones and welcoming climatic conditions of Eritrea, the tourism sector has not grown yet as much as it should. This is because of number of obstacles and constraints. Lack of skilled manpower is one of the obstacles which have resulted to insufficient market research activities. The insufficient tourism promotion and marketing activities together with the lower roles of travel agencies are contributing to the low growth of the sector. The inadequacy of transportation and access routes also creates inaccessibility problems. Moreover, deficiency of infrastructure has aggravated the lack of necessary tourist products. Thus, absence of water supply system in some attractive sites made them less important. The poor development of other constructed facilities such as highways, airports, roads, railways, parks, resorts, hotels, motels and places of entertainment has influenced the sector negatively.

So far as the use of GIS as a tool to enhance the tourism sectors is concerned, no doubt it has put the required information and critical data of Eritrea's tourism on the desk top to serve the tourism market. It has also revealed that this sort of presentation of tourism information in GIS multimedia environment would offer an unparallel platform for the management and promotion of the tourism industry in Eritrea. Tourism GIS has made easy access for the tourism agencies, policy makers and stakeholders to get detailed information and thus serve as an important source of motivation to encourage the performance of the sector. Thus, for efficient marketing and promotion adequate incentive could be assured. However, the

problems of updating graphical tourist guides and maps now become quite easier. This process is cheap, easier and less time consuming. A comprehensive information base for tourism in Eritrea on the Internet could be seen as an outcome of this research paper.

Until the performance potential of GIS in the tourism industry of Eritrea is critically observed, Eritrea could not stand in the international competitive tourism marketing. If it is so with the help of GIS we can answer so many fundamental questions, such as where is it. And how do I get there? Application of GIS in the tourism industry of Eritrea will strengthen the Zoba wise plan for managing and promoting the tourism industry in the country. No doubt, in the beginning the investment is high, but it is sure that the importance of GIS will increase in the tourism industry at global level. In this context it seems to be very much suitable to say 'first come first serve', because earlier the tourism industry of Eritrea will adopt this technique the better it would be for its future development.

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HOW GIS COULD BE USED AS A TOOL TO ENHANCE THE TOURISM SECTORS? A CASE STUDY OF ERITREA

Summary

This paper discusses the use of GIS as a tool for archiving, analyzing, and displaying of tourism information to enhance the tourism sectors in Eritrea. The study presents a conceptual geographical information systems (GIS) supported sustainable tourism infrastructure planning framework including attraction, service and transportation facilities. This framework focuses on tourism planning as an integrated approach based on sustainability criteria. It also aims to integrate set of sustainability criteria (i.e. development objectives, visitors experience preferences, carrying capacity standards and resource impacts) into infrastructure planning via GIS. Based on these criteria, the application of GIS provides an insight in the management and promotion of tourism in the most sustainable locations and layout of future infrastructure in Eritrea. Since tourism implies travel from one place to another, each location should be analyzed within a spatial context (Body and Butler 1996). Although GIS are ultimately suited to perform these tasks, a lot of spatial data and analysis is necessary (Beedasy and Whyatt 1999).

It is evident from the preceding discussion that the country's tourism potential has not been fully explored and marketed. In the discovery of the tourism potentials in Eritrea, many attempts have been made to enhance its rapid development. However, these attempts have experienced some major drawbacks because of lack of a comprehensive spatial database of tourism facilities and destinations. In order to overcome these major drawbacks, a tourism GIS was designed to investigate how a dynamic spatial data library of tourism facilities with integrated graphical displays could be provided. GIS was chosen as the suitable platform because the location of tourism destinations provided a common denominator to link all information related to the tourism industry. This result was not just a simple digital tourist map but also a multidimensional model of tourism information that could be made available on the Internet.

So far as the use of GIS as a tool to enhance the tourism sectors is concerned, no doubt it has put the required information and critical data of Eritrea's tourism on the desk top to serve the tourism market. It has also revealed that this sort of presentation of tourism information in GIS multimedia environment would offer an unparallel platform for the management and promotion of the tourism industry in Eritrea. Tourism GIS has made easy access for the tourism agencies, policy makers and stakeholders to get detailed information and thus serve as an important source of motivation to encourage the performance of the sector. Thus, for efficient marketing and promotion adequate incentive could be assured. However, the problems of updating graphical tourist guides and maps now become quite easier. This process is cheap, easier and less time consuming. A comprehensive information base for tourism in Eritrea on the Internet could be seen as an outcome of this research paper.

ZNAČILNOSTI STACIONARNEGA TURISTIČNEGA OBISKA V MARIBORU MED LETOMA 1961 IN 2011

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Izvleček

Značilnosti stacionarnega turističnega obiska v Mariboru med letoma 1961 in 2011

V prispevku so prikazane glavne značilnosti stacionarnega turističnega obiska v Mariboru v zadnjih petdesetih letih. Avtor analizira podatke o turističnem obisku (število turistov, število nočitev, izvor turistov po državah, povprečna dolžina bivanja turistov, sezonskost turističnega obiska, razporeditev nočitev po vrsti prenočitvenih objektov, povprečna zasedenost turističnih ležišč) po poglavitnih obdobjih turističnega razvoja v Mariboru. Glede na relativno kratko povprečno dolžino bivanja turistov (okoli 2 dni) in druge kriterije, se Maribor uvršča med turistične kraje v širšem smislu z razvitim mestnim turizmom.

Ključne besede

turizem, mestni turizem, turistični obisk, nočitve, povprečna dolžina bivanja turistov, Maribor, Slovenija

Abstract

The characteristics of stationary tourist visit in Maribor between 1961 and 2011

The article discusses the main characteristics of stationary tourist visit in Maribor, the second largest town in Slovenia, in the last half of the century. The main criteria of the tourist visit (number of tourists and overnight stays, share of overnight stays by origin / countries, the average length of stay of tourists, seasonality of tourist visit, distribution of overnight stays by the type of the tourist accommodation, the average occupancy rate of tourist beds) the author analyzes in the major stages of the development of tourism in Maribor. According to the relative short average length of stay of tourists (around 2 days), and other criteria, Maribor is one of the tourist destinations with all characteristics of developed urban tourism.

Key words

Tourism, urban tourism, tourist visit, tourist overnight stays, average length of tourist stays, Maribor, Slovenia

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1. Uvod

Maribor se, glede na osnovne značilnosti stacionarnega turističnega obiska (pri čemer so upoštevani samo turisti, ki so v kraju prespali), ter zlasti glede na relativno kratko povprečno dolžino bivanja turistov, uvršča med turistične kraje v širšem smislu (Horvat 1989), v katerih je razvit t. im. mestni turizem.

Turistični razvoj se je v Mariboru pričel po izgradnji Južne železnice, oziroma konec 19. stoletja, ko so ustanovili mestno olepševalno društvo. Leta 1909 so zabeležili okoli 15.600 nočitev. Turisti so bivali v manjših mestnih hotelih in gostiščih; večina se je v Mariboru zadržala do 3 dni (Vuk 2010). Med obema svetovnima vojnama je nastalo nekaj novih prenočitvenih objektov, prav tako se je povečal turistični obisk (Turk 2011). Leta 1935 so zabeležili okoli 56.300 nočitev (Janša Zorn 1996).

Po drugi svetovni vojni je Maribor doživljal intenziven industrijski in prostorski razvoj, med tem ko se je razvoj na področju turizma pričel šele v 60. letih 20. stoletja. Z izgradnjo novih in moderniziranjem obstoječih prenočitvenih zmogljivosti se je število turistov bistveno povečalo in podatki kažejo, da se je Maribor pred letom 1990 redno uvrščal na seznam deset turističnih krajev z največjim številom nočitev v Sloveniji. Na seznamu je bil, poleg Ljubljane, edini turistični kraj z razvitim mestnim turizmom. Po letu 1990 ga na seznamu ne najdemo več, saj se je turistični obisk v Mariboru močno zmanjšal.

Preglednica 1: Vrstni red desetih največjih turističnih krajev v Sloveniji po številu nočitev med letoma 1961 in 2001.

	turistični kraj	**1961**	turistični kraj	**1971**	turistični kraj	**1981**
1.	Portorož	276.712	Portorož	821.353	Portorož	1.289.578
2.	Rogaška Slatina	266.598	Ljubljana	501.646	Ljubljana	634.014
3.	Bled	249.479	Bled	464.102	Bled	549.474
4.	Ljubljana	215.430	Rogaška Slatina	240.591	Kranjska Gora	412.235
5.	Bohinj	121.255	Bohinj	213.688	Rogaška Slatina	329.256
6.	Dobrna	116.760	Izola	198.026	Bohinj	295.425
7.	Piran	104.937	Piran	184.036	Izola	228.390
8.	Ankaran	103.871	Koper	172.341	**Maribor**	200.496
9.	Laško	89.814	**Maribor**	169.078	Ankaran	174.751
10.	**Maribor**	84.484	Ankaran	154.473	Radenci	168.717

	turistični kraj	**1986**	turistični kraj	**1991**	turistični kraj	**2001**
1.	Portorož	1.452.399	Portorož	501.103	Portorož	1.027.535
2.	Ljubljana	723.901	Ljubljana	320.198	Čatež ob Savi	493.683
3.	Bled	662.258	Čatež ob Savi	312.667	Bled	477.580
4.	Kranjska Gora	507.792	Kranjska Gora	305.144	Ljubljana	391.421
5.	Rogaška Slatina	383.525	Bled	267.408	Izola	375.895
6.	Izola	305.489	Rogaška Slatina	226.185	Moravske Topl.	363.864
7.	Bohinj	304.416	Podčetrtek	197.892	Kranjska Gora	299.801
8.	Čatež ob Savi	267.925	Bohinj	191.491	Podčetrtek	292.674
9.	Ankaran	245.999	Moravske Topl.	174.385	Ankaran	236.826
10.	**Maribor**	194.619	Izola	148.498	Rogaška Slatina	209.520

Vir: Letni pregledi turizma, 1961-2001.

2. Število turistov in nočitev

Glede na obseg stacionarnega turističnega obiska v Mariboru, lahko obdobje med letoma 1961 in 2011 razdelimo v štiri razvojna obdobja:

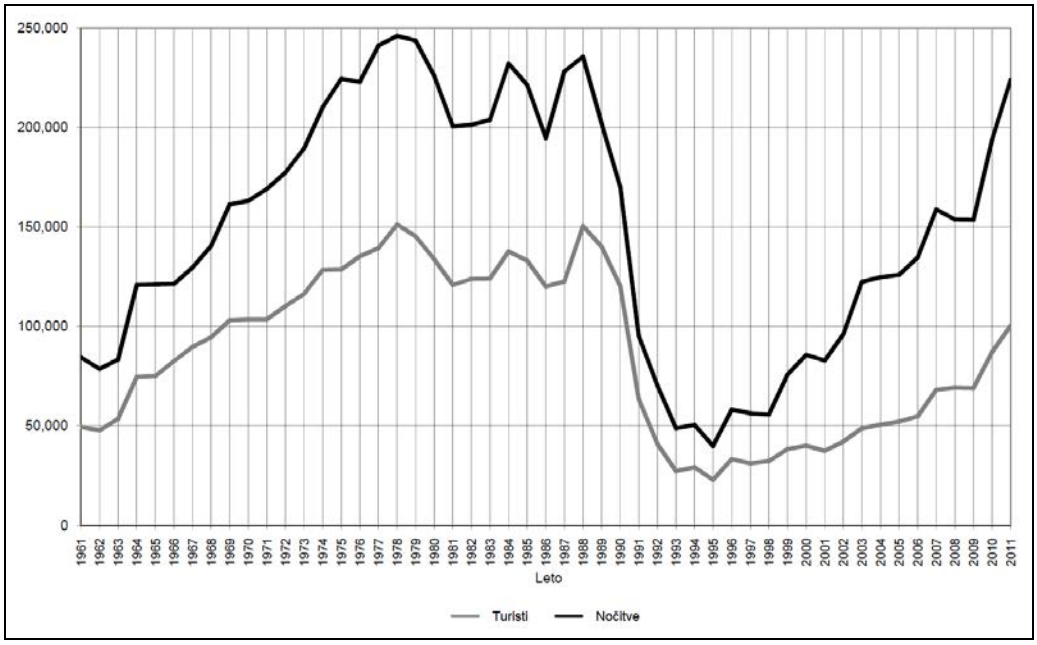
1. Med letoma 1961 in 1973 – obdobje razvoja. Obdobje sovpada z obdobjem

splošnega gospodarskega razvoja Maribora, zlasti njegove industrijske funkcije, obenem pa tudi postopne izgradnje turistične infrastrukture. V tem obdobju se je v mestu število vseh turističnih ležišč povečalo z manj kot 500 na okoli 1.100, med katerimi je bilo v hotelih okoli 700 ležišč. Število turistov je v začetku 60. let počasi naraščalo, nato pa se je v drugi polovici 60. let z okoli 50.000 povečalo na preko 100.000. Povečanju je sledila tudi rast števila nočitev, ki so sredi 60. let presegle 100.000 in v začetku 70. let dosegle 190.000.

Preglednica 2: Število turistov in nočitev v Mariboru med letoma 1961 in 2009.

Leto	1961	1971	1978	1988	1995	2001	2009
Št. turistov	49.426	103.514	151.183	150.446	22.886	37.470	68.930
Št. nočitev	84.484	169.078	246.014	235.619	39.873	82.808	153.557

Vir: Letni pregledi turizma, 1961-2002; www.stat.si.



Slika 1: Število turistov in nočitev v Mariboru med letoma 1961 in 2011.
Vir: Letni pregledi turizma, 1961-2002; www.stat.si.

2. Med letoma 1974 in 1990 – obdobje viška turističnega obiska. Obdobje sovpada z viškom splošnega gospodarskega razvoja v mestu, zlasti pa je povezano z viškom razvoja velikih industrijskih podjetij, ki so bila orientirana predvsem na trg na območju bivše Jugoslavije. V tem obdobju se je število vseh turističnih ležišč gibalo med 900 in 1.200; od teh je bilo v hotelih med 820 do 930 ležišč. V turistični ponudbi so prevladovali mestni hoteli Slavija, Turist in Orel, na obrobju mesta pa hotel Habakuk. Število turistov se je gibalo med 120.000 in 150.000, število nočitev pa med 200.000 in 245.000. Višek turističnega obiska je bil zabeležen konec 70. let (leta 1978 so zabeležili 151.000 turistov in 246.000 nočitev) in konec 80. let (leta 1988 so zabeležili 150.000 turistov in 235.000 nočitev). Glede na naveden obseg turističnega prometa je Maribor v tem času predstavljal pomembno turistično destinacijo v Sloveniji. Turistični obisk se je začel zmanjševati leta 1990 (120.000 turistov in 170.000 nočitev), močno pa je padel v naslednjem letu.

3. Med letoma 1991 in 2001 – obdobje krize. Obdobje sovpada s hitrim propadom velikih industrijskih podjetij v Mariboru (Lorber 2009) ter vojno na področju bivše Jugoslavije in posledično spremembo tranzitnih tokov proti JV Evropi. Zaradi velikega izpada turistov iz območja bivše Jugoslavije in tudi drugih držav, se je število turistov v prvi polovici 90. let zmanjšalo na manj kot 30.000, število nočitev pa na manj kot 60.000. Najmanj jih je bilo leta 1995 ko so zabeležili nekaj manj kot 23.000 turistov in nekaj manj kot 40.000 nočitev. To je predstavljalo kar 6-kratno zmanjšanje turističnega obiska v primerjavi z predhodnim desetletjem. Posledično se je močno zmanjšala tudi ponudba prenočitvenih zmogljivosti; na manj kot 700 ležišč. Konec 90. let in po letu 2000 se je turistični obisk začel postopoma spet povečevati (na okoli 40.000 turistov in okoli 80.000 nočitev). Obdobje krize je močno vplivalo na transformacijo turistične ponudbe v Mariboru, kar je še zlasti očitno v zadnjem obdobju turističnega razvoja.

4. Med letoma 2002 in 2011 - obdobje prestrukturiranja turistične infrastrukture in ponovnega turističnega razvoja. V letu 2004 je število stacionarnih turistov v Mariboru po 12 letih krize zopet preseglo 50.000, število nočitev pa 120.000. Z vstopom Slovenije v Evropsko unijo, ponovno vzpostavitvijo tranzitnih tokov proti JV Evropi, transformacijo gospodarske dejavnosti (razvojem terciarnega in kvartarnega sektorja) ter spremembo in razširitvijo turistične infrastrukture (s prenovo in novimi prenočitvenimi objekti) ter njeno večjo pestrostjo, je turizem zopet postal pomembna gospodarska dejavnost v mestu. Število vseh turističnih ležišč se je v letu 2009 povečalo na okoli 1.600, število ležišč v hotelih pa na okoli 1.150. Istega leta se je število turistov povečalo na okoli 70.000, število nočitev pa na okoli 155.000. Največje pa je povečanje v zadnjih dveh letih, ko se je v letu 2011 število turistov povečalo na okoli 100.000, število nočitev pa na okoli 220.000. Pri tem je potrebno opozoriti, da se je po letu 2009 spremenila metodologija zajema in objavljanja podatkov (Cigale 2010), ki se je uskladila z metodologijo v EU (www.stat.si), vendar pa so podatki kljub temu dovolj primerljivi s predhodnim obdobjem. Po novih podatkih je bilo v mestu v letu 2011 okoli 1.900 turističnih ležišč, od teh okoli 1.570 v hotelih, kar je največ v vsem obdobju po drugi svetovni vojni.

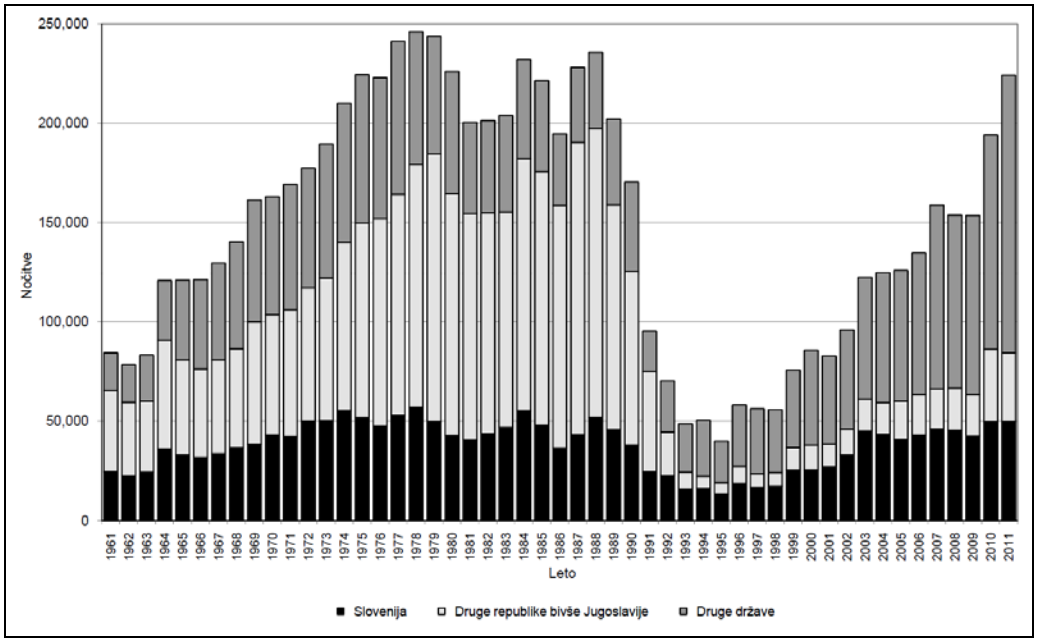
Primerjava s predhodnimi obdobji kaže, da se je v zadnjem desetletju, po obdobju velike krize v 90. letih, število turistov in nočitev v Mariboru ponovno močno povečalo, vendar še vedno zaostaja za obdobjem viška turističnega obiska v drugi polovici 70. in v 80. letih. Leta 2011 je število turistov doseglo raven iz sredini 60. let, število nočitev pa raven iz sredine 70. let 20. stoletja.

3. Nočitve glede na izvor turistov

V analizi stacionarnega turističnega obiska v Mariboru so turisti in njihove nočitve prikazani na dva načina; po državah in po skupinah držav. Pri skupinah držav smo opredelili turiste iz Slovenije (domači turisti), iz drugih republik bivše Jugoslavije (do leta 1991 so bili opredeljeni kot domači, po letu 1991 pa kot tuji turisti) in iz drugih držav (tuji turisti). Vzrok za tovrstno opredelitev je dejstvo, da so turisti iz drugih republik bivše Jugoslavije v obdobju največjega turističnega obiska v Mariboru predstavljali kar 60 % vseh turistov in 65 % vseh nočitev v mestu.

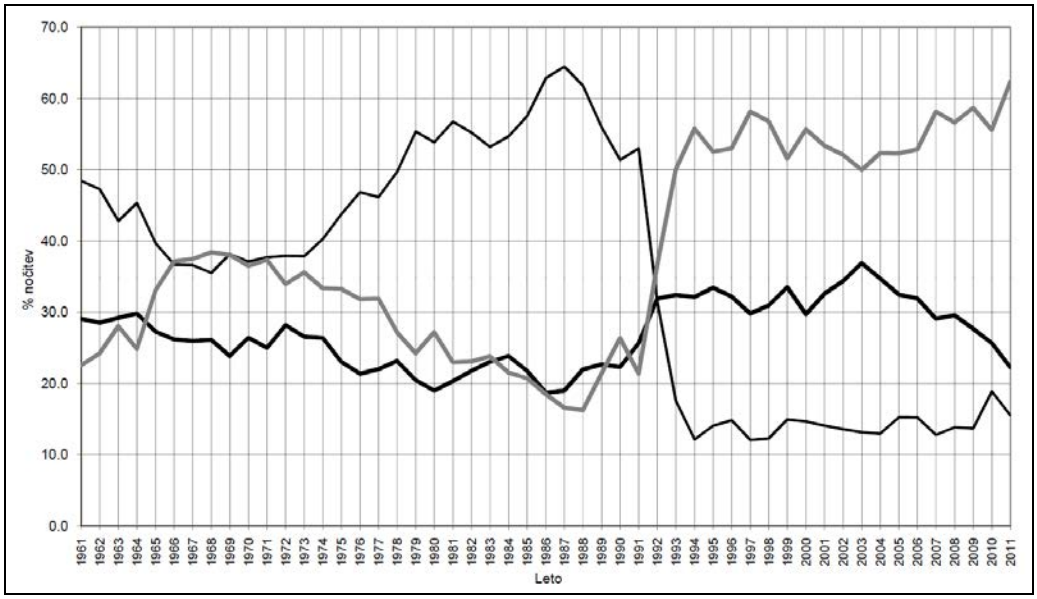
Glede na delež nočitev po izvoru turistov, lahko obdobje med letoma 1961 in 2011 razdelimo v tri razvojna obdobja:

1. Med letoma 1961 in 1974 – obdobje brez prevlade posamezne skupine turistov. Obdobje sovpada z začetnim razvojnim obdobjem turizma v Mariboru. Delež nočitev turistov iz Slovenije se je gibal med 25 in 30 %, iz drugih republik bivše Jugoslavije med 35 in 40 %, iz tujine pa med 30 in 40 %. Kljub obmejni in tranzitni legi je imel Maribor v tem obdobju manjši delež tujih turistov, kot je bilo povprečje v Sloveniji (med 45 in 50 %). Leta 1971 so bile (razen iz Slovenije; 25,0 %) najbolj zastopane nočitve turistov iz Srbije (17,4 %), Hrvaške (13,9 %), Nemčije (10,2 %) in Avstrije (6,6 %). Na pomen tranzitne lege kaže tudi dejstvo, da so turisti iz Turčije realizirali kar 3,5 % vseh nočitev.



Slika 2: Število nočitev v Mariboru med letoma 1961 in 2011, glede na izvor.
Vir: Letni pregledi turizma, 1961-2002; www.stat.si.

2. Med letoma 1975 in 1991 – obdobje s prevlado turistov iz drugih republik bivše Jugoslavije. Obdobje sovpada z obdobjem viška turističnega obiska v Mariboru. Glavna značilnost je velika prevlada turistov iz drugih republik bivše Jugoslavije, katerih nočitve so predstavljale konec 70. let okoli 45 %, v prvi polovici 80. let okoli 55 % in v drugi polovici 80. let celo 65 % vseh nočitev v Mariboru. Leta 1986 so turisti iz Srbije realizirali kar 27,3 % vseh nočitev v mestu, sledili pa so jim turisti iz Slovenije (18,7 %), Hrvaške (17,2 %) in BIH (14,4 %). To kaže na veliko odvisnost turistične obiska v Mariboru od trgov nekdanje Jugoslavije, saj je Maribor iz tega območja obiskalo letno v povprečju med 65.000 do 80.000 turistov, ki so realizirali med 100.000 in 150.000 nočitev. Zlasti med turisti iz Srbije in BIH so prevladovali poslovni in tranzitni turisti, na kar kažejo tudi relativno kratke povprečne dolžine bivanja turistov v mestu. Deleži nočitev turistov iz Slovenije in iz drugih držav so se gibali med 16 in 25 %. V nasprotju z velikim številom turistov iz drugih republik nekdanje Jugoslavije, je bilo turistov iz drugih držav letno v Mariboru v povprečju le med 25.000 in 40.000, realizirali pa so med 35.000 in 70.000 nočitev. Leta 1986 so najvišji delež tujih nočitev realizirali turisti iz Nemčije (5,3 %), sledili pa so jim turisti iz Italije (3,0 %) in Avstrije (1,9 %).



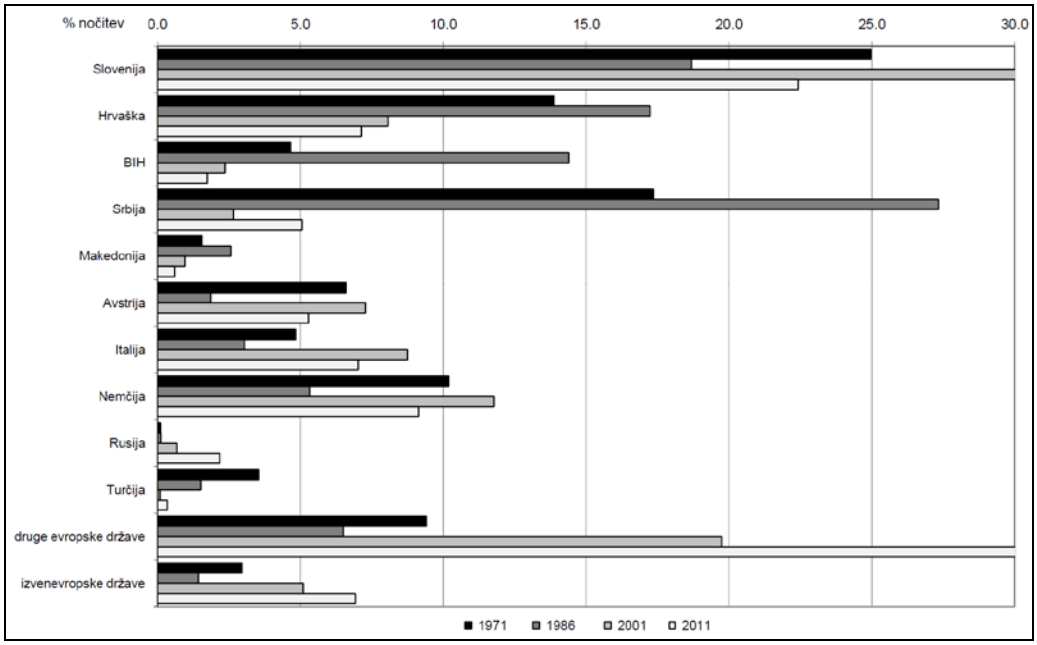
Slika 3: Delež nočitev v Mariboru med letoma 1961 in 2011, glede na izvor.
Vir: Letni pregledi turizma, 1961-2002; www.stat.si.

3. Med letoma 1993 in 2011 – obdobje s prevlado tujih turistov. Obdobje sovpada z obdobjem velikega zmanjšanja turističnega obiska v 90. letih ter postopnim prestrukturiranjem turistične infrastrukture in povečanjem turističnega obiska po letu 2003. Obema obdobjema je skupno, da so tuji turisti postali prevladujoča skupina turistov v Mariboru. Delež njihovih nočitev se je postopoma povečal z 50 na 62 %, ko pa k temu prištejemo še nočitve turistov iz drugih republik bivše Jugoslavije (ki so po letu 1991 opredeljeni kot tuji turisti), se je delež tujih turistov povečal s 65 na 78 %. Leta 2011 je Maribor obiskalo okoli 77.000 tujih turistov (vključno s turisti z območja bivše Jugoslavije), ki so realizirali okoli 165.000 nočitev. Največ so jih realizirali turisti iz že doslej prevladujočih držav: Nemčija (9,1 %), Hrvaška (7,1 %), Italija (7,0 %), Avstrija (5,3 %) in Srbija (5,1 %).

Po letu 1996 se je v Mariboru začel povečevati tudi obisk turistov iz drugih evropskih držav, kar kaže na povečevanje gravitacijskega zaledja turističnih potovanj. Na to je vplivala predvsem ponovna vzpostavitev tranzitnih povezav iz Srednje proti JV Evropi, vključitev Slovenije v Evropsko unijo ter izgradnja avtocestnih povezav v Sloveniji. Maribor žal nima vzpostavljene redne letalske linije (z izjemo kratkega obdobja, ko je na letališču Maribor deloval nizkocenovni letalski prevoznik Ryanair), tako da je prihod tujih turistov odvisen predvsem od cestnega prometa in v manjši meri od železniškega. Leta 2006 je delež nočitev turistov iz drugih evropskih držav presegel 21 %, leta 2011 pa 32 %. Med njimi so bili najbolj zastopani turisti iz Madžarske (4,2 %), Poljske (2,9 %), Francije (2,4 %), Velike Britanije (2,3 %), Ruske federacije (2,2 %), Romunije (2,2 %), Češke (2,0 %) in Belgije (2,0 %).

V zadnjih letih se je precej povečal tudi obisk iz neevropskih držav. Pred letom 1991 so turisti iz tega območja letno realizirali manj kot 4.000 nočitev, oziroma okoli 3 % vseh v Mariboru. Po le letu 2000 se je njihov delež povečalo na preko 5 % vseh

nočitev. Leta 2011 so realizirali več kot 15.000 nočitev, oziroma 6,9 % vseh nočitev v Mariboru. Največ je bilo turistov iz ZDA (1,2 %).



Slika 4: Delež nočitev v Mariboru leta 1971, 1986, 2001 in 2011, glede na izvor.
Vir: Letni pregledi turizma, 1971-2001; www.stat.si

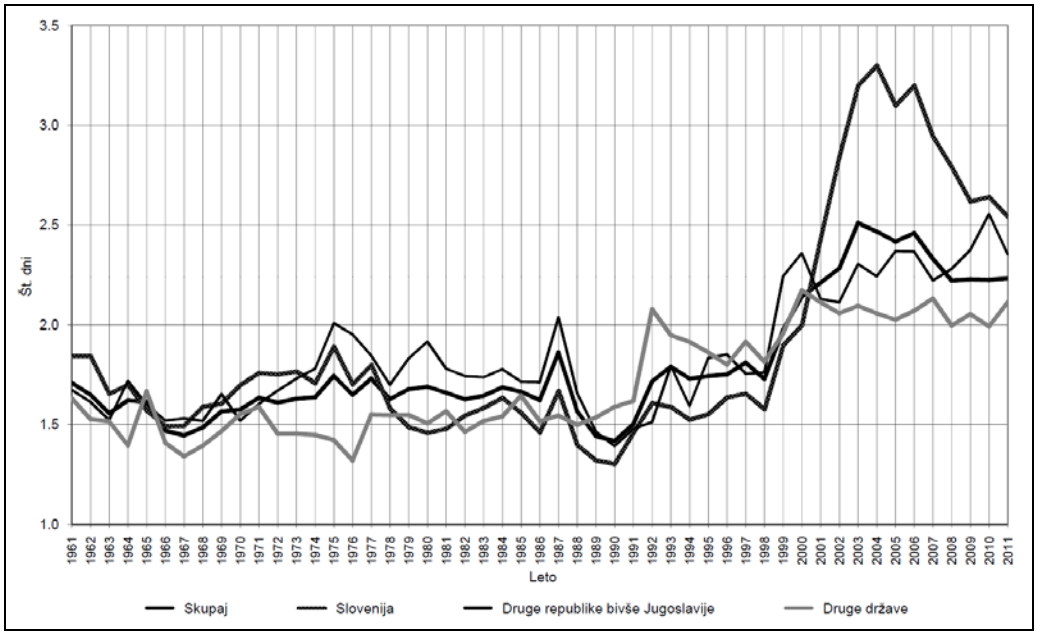
4. Povprečna dolžina bivanja turistov

S povprečno dolžino bivanja turistov izražamo razmerje med številom nočitev in turistov, t j. povprečno število dni, ki jih turist preživi v turističnem kraju. Večjo vrednost beležimo v turističnih krajih v ožjem smislu, zlasti v tistih, ki predstavljajo končno destinacijo turističnih potovanj, saj s svojim turističnim potencialom ter razvito in pestro turistično ponudbo lahko zadovoljijo različne potrebe in motive turistov, tako da le-ti ostanejo v turističnem kraju dlje časa (Horvat, 1989). V Sloveniji se povprečne dolžine bivanja turistov v zadnjih 30. letih gibljejo med 3,0 in 3,5 dni, v Mariboru pa med 1,5 in 2,5 dni. Glede na navedeno, kaže Maribor vse značilnosti turističnega kraja v širšem smislu z razvitim mestnim turizmom.

Glede na povprečno dolžino bivanja turistov v Mariboru, lahko obdobje med letoma 1961 in 2011 razdelimo v dve razvojni obdobji:

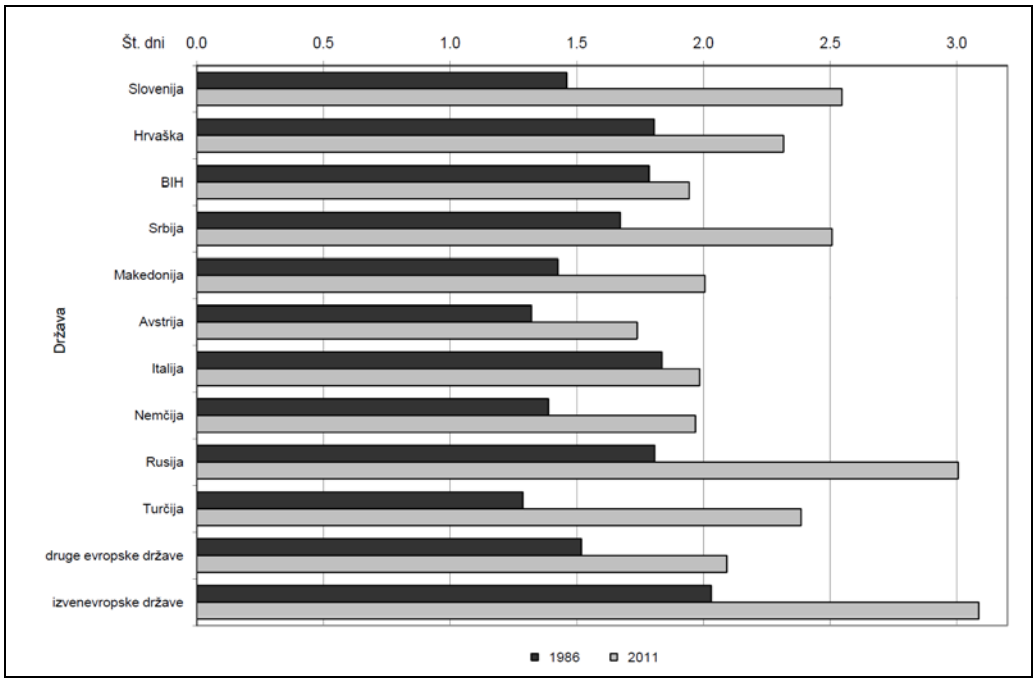
1. Med letoma 1961 in 1999 – obdobje, v katerem je povprečna dolžina bivanja turistov v Mariboru krajša od 2 dni. Obdobje sovpada z obdobjem razvoja in viška turističnega obiska v Mariboru, za katerega je bila značilna prevlada turistov iz drugih republik bivše Jugoslavije. Vrednosti so se gibale od 1,4 do 1,9 dni, v povprečju pa so stacionarni turisti ostali v Mariboru 1,6 dni. Nekoliko dlje od povprečja so v 70. in 80. letih bivali v Mariboru turisti iz drugih republik bivše Jugoslavije (od 1,7 do 2,0 dni). Večina je Maribor obiskala iz poslovnih razlogov, pomemben je bil tudi rekreacijski motiv (zlasti zimska in poletna rekreacija na Pohorju), pa tudi tranzit. Nekoliko manj od povprečja so v Mariboru bivali turisti iz

drugih držav (od 1,3 do 1,6 dni), pri katerih se kaže izrazit vpliv tranzitnega turizma.



Slika 5: Povprečna dolžina bivanja turistov v Mariboru med letoma 1961 in 2011.
Vir: Letni pregledi turizma, 1961-2002; www.stat.si.

2. Med letoma 2000 in 2011 – obdobje, v katerem je povprečna dolžina bivanja turistov v Mariboru daljša od 2 dni. K daljšanju so prispevale vse tri skupine turistov (glede na izvor). Najbolj se je dolžina bivanja podaljšala turistom iz Slovenije ter iz drugih republik bivše Jugoslavije. Slednji so se v zadnjih letih zopet pričeli vračati v Maribor. Opaziti je predvsem podaljševanje njihove dolžine bivanja v zimskem času, ko predstavljajo pomemben del gostov na Pohorju. V letu 2011 so zabeležili najdaljšo povprečno dolžino bivanja turisti iz bolj oddaljenih držav, ki jim je Maribor predstavljal končno ali pa pomembno točko na njihovem potovanju. Na prvem mestu so bili turisti iz Avstralije (3,5 dni), sledili pa so jim turisti iz Črne Gore (3,4 dni), Grčije (3,1 dni), Ruske federacije (3,0 dni; leta 2006 je bilo njihovo povprečje 4,8 dni), Kanade (2,8 dni), Finske, Izraela (2,6 dni), Ukrajine, Srbije in Danske (2,5 dni). Na drugi strani pa turisti iz Poljske (1,3 dni), Nizozemske (1,5 dni), Avstrije (1,7 dni), Norveške, Švedske in Japonske (1,8 dni) prihajajo v Maribor le za krajši čas in jim mesto predstavlja večinoma le točko na njihovem potovanju. Glede na navedeno je očitno, da Maribor v Evropi (in širše) ne predstavlja dovolj prepoznavne turistične destinacije, ki bi s svojim turističnim potencialom in ponudbo privabljala turiste, da bi v njem ostali dlje časa.



Slika 6: Povprečna dolžina bivanja turistov v Mariboru leta 1986 in 2011, glede na izvor (države).
Vir: Letni pregledi turizma, 1986; www.stat.si.

5. Sezonskost turističnega obiska

Analiza časovnega poteka turističnega obiska nam pokaže razporeditev obiska preko leta po mesecih ali skupinah mesecev (sezonah). Pogosto se ugotavlja razmerje med poletno (april–september) in zimsko (januar–marec in oktober–december) sezono. V Sloveniji je v zadnjem desetletju v poletni sezoni registriranih okoli 65 % nočitev, kar kaže na večji pomen počitniškega, rekreacijskega in tranzitnega turizma v času poletnih dopustov. Maribor sodi v skupino turističnih krajev v širšem smislu, za katere je značilna dokaj enakomerna porazdelitev turističnega obiska preko celega leta (Horvat 1989).

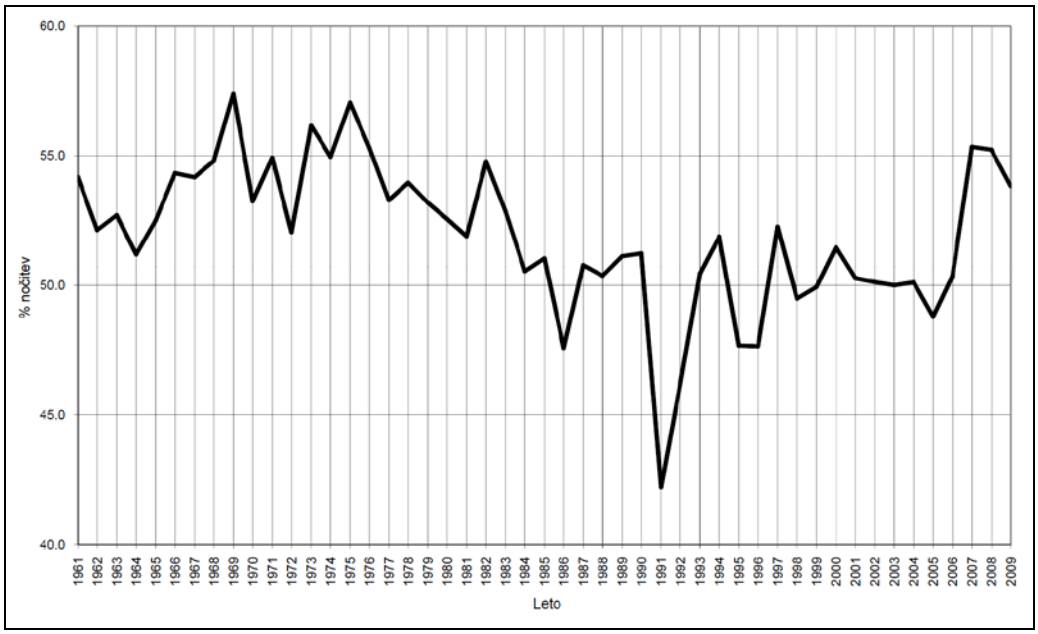
Glede na delež nočitev v poletni sezoni (april–september) v Mariboru, lahko obdobje med letoma 1961 in 2011 razdelimo v tri razvojna obdobja:

1. Med letoma 1961 in 1983 – obdobje s prevladujočo poletno sezono, v kateri je bilo v povprečju realiziranih od 52 do 57 % nočitev. Izstopa predvsem obdobje sredi 70. let z več kot 55 % nočitev v poletni sezoni.

2. Med letoma 1984 in 2006 – obdobje, v katerem je bilo v poletni sezoni v povprečju realiziranih od 47 do 52 % nočitev. Z nižjim deležem izstopajo predvsem 90. leta, ko je bilo v več kot polovici let v poletni sezoni realiziranih manj kot 50 % nočitev. Delež je bil najnižji leta 1991 (42,2 %) in je posledica velikega izpada turističnega obiska v poletnih mesecih zaradi osamosvojitvene vojne v Sloveniji.

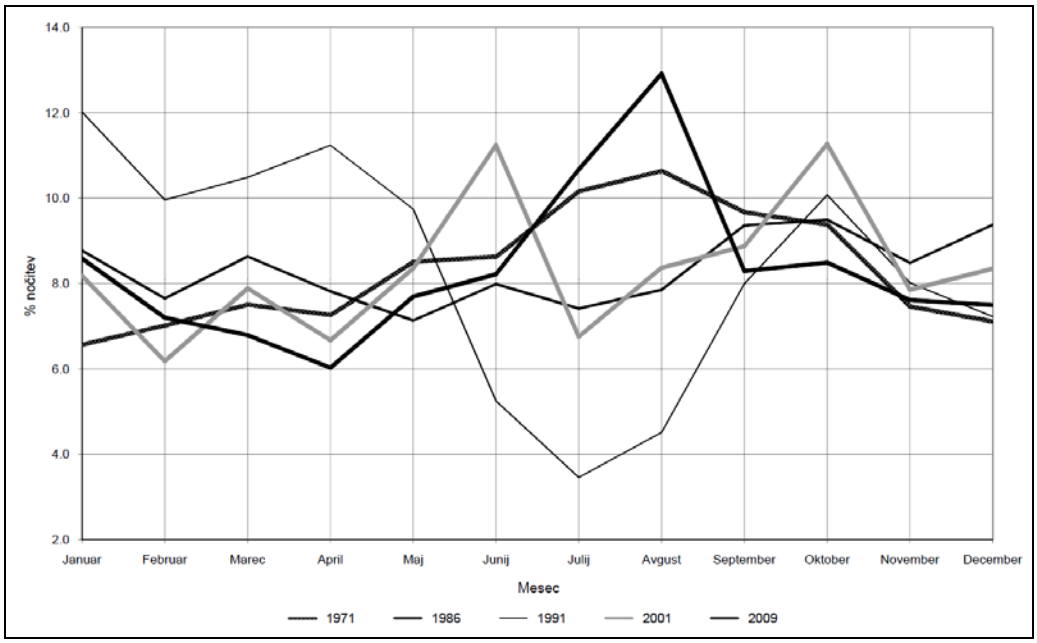
3. Med letoma 2007 in 2011 – obdobje s prevladujočo poletno sezono, v kateri je

bilo v povprečju realiziranih od 53 do 56 % nočitev. Obdobje sovpada s ponovnim povečanjem turističnega obiska v zadnjih letih in kaže, da se obisk bolj povečuje v poletnem obdobju, ko mesto obiščejo številni turisti (tudi iz bolj oddaljenih držav).



Slika 7: Delež nočitev v poletni sezoni (april–september) v Mariboru med letoma 1961 in 2009.
Vir: Letni pregledi turizma, 1961-2002; www.stat.si.

Analiza deleža nočitev po mesecih kaže, da je bil v Mariboru v 60. in 70. letih največji turistični obisk registriran v poletnih mesecih (julij, avgust) ter v septembru in oktobru (več kot 9 % nočitev v mesecu), najmanjši (manj kot 7 %) pa v januarju in februarju. V 80. letih se je višek turističnega obiska (več kot 9 %) preselil v zgodnjo jesen (september, oktober), med tem ko je bil delež nočitev v zimskih mesecih enak kot v poletnih. V 90. letih najmanjši turistični obisk (manj kot 6 %) beležijo poletni meseci (julij, avgust), višek obiska (več kot 10 %) pa se je prestavil v maj in oktober. Po letu 2006 zopet pridejo v ospredje poletni meseci (julij, avgust), ko mesto obišče veliko tujih turistov. Privabljajo jih različne prireditve, večina tujih turistov pa se kot tranzitni gosti ustavijo v Mariboru za dan ali dva. Dobro so zastopani tudi zimski meseci (januar), najmanj obiska (manj kot 7 %) pa je v spomladanskih mesecih (marec, april).

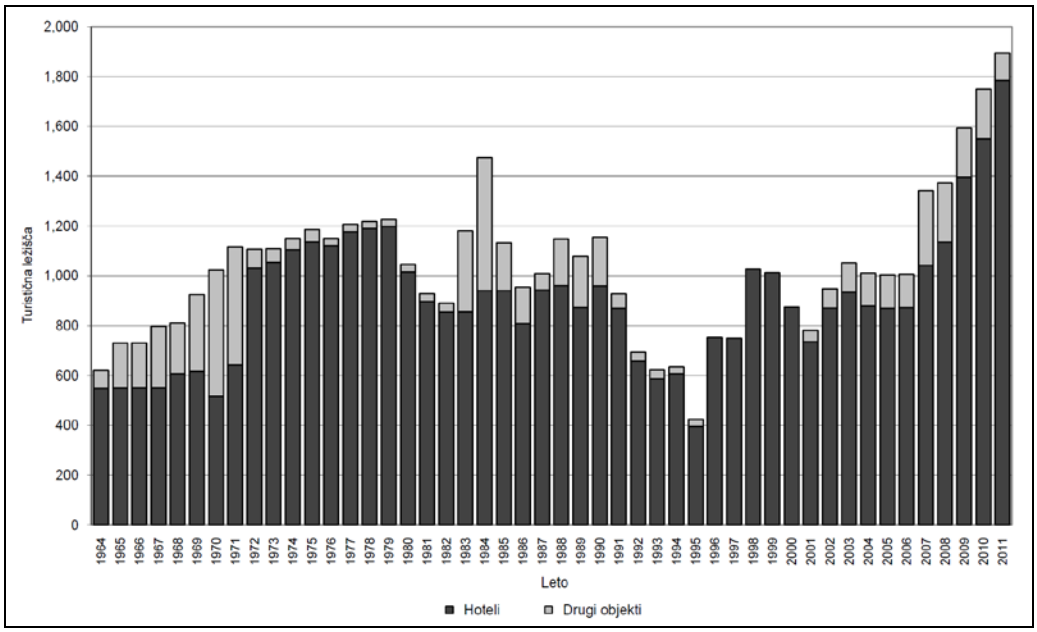


Slika 8: Delež nočitev v Mariboru po mesecih v letu 1971, 1986, 1991, 2001 in 2009.
Vir: Letni pregledi turizma, 1971-2001; www.stat.si

6. Nočitve po vrsti prenočitvenih objektov in povprečna zasedenost ležišč

Gradnja sodobne turistične infrastrukture se je v Mariboru pričela v 60. letih. Leta 1963 so zgradili največji mestni hotel Slavija, ki je bil leta 2001 zaprt, leta 2012 pa preurejen v poslovni center. Leta 1966 so razširili hotel Turist, ki je bil leta 1994 preurejen v poslovni hotel Piramida in ponovno prenovljen med letoma 2010 in 2012. Leta 1969 so modernizirali najstarejši mestni hotel Orel, ki je bil leta 1989 povezan s tedanjim hotelom Zamorc, nato pa je bil del hotela leta 2006 zaprt in preurejen v trgovski center, del je bil prenovljen, del pa spremenjen v hostel Uni (Turk 2011). Izven mesta se nahaja hotel Habakuk, ki je bil leta 1998 preurejen v hotel s 5 zvezdicami, nad njim pa se ob zgornji postaji Pohorske vzpenjače nahaja hotel Bellevue, ki je bil leta 2007 v celoti prenovljen (www.termemb.si).

Konec 90. let in po letu 2000 so pričele v Mariboru nastajati tudi nove prenočitvene zmogljivosti v zasebni lasti, ki večinoma delujejo kot družinska podjetja. Največ jih je lociranih na obrobju mesta, še posebej ob vznožju Pohorja, kjer se poleg hotela Habakuk in športnega hotela Arena, nahaja vrsta manjših družinskih hotelov, prenočišč in gostišč s turističnimi ležišči. Izgradnja novih prenočitvenih objektov se je še intenzivirala po letu 2006, ko na obrobju mesta in tudi v samem mestnem središču nastanejo novi hoteli (npr. leta 2007 hotel Betnava, leta 2011 hotel City).



Slika 9: Število turističnih ležišč v Mariboru med letoma 1964 in 2011.
Vir: Letni pregledi turizma, 1964-2002; www.stat.si.

Glede na število turističnih ležišč v Mariboru, lahko obdobje med letoma 1961 in 2011 razdelimo v štiri razvojna obdobja:

1. Med letoma 1961 in 1968 – obdobje razvoja, ko so bili zgrajeni ali modernizirani mestni hoteli. Število ležišč se je z manj kot 500 povečalo na okoli 800 ležišč.

2. Med letoma 1969 in 1991 – obdobje viška turističnega razvoja, v katerem se je število ležišč v povprečju gibalo med 900 in 1.200 ležišč. V hotelih je bilo v povprečju med 820 in 930 ležišč.

3. Med letoma 1992 in 1997 – obdobje krize, v katerem se je število ležišč zmanjšalo za več kot polovico ter gibalo med 620 in 750 ležišči (v letu 1995 so registrirali le 420 ležišč). V hotelih je bilo med 570 in 720 ležišč.

4. Med letoma 1998 in 2011 – obdobje ponovnega razvoja, v katerem se je število ležišč postopoma povečalo od 1.000 na rekordnih 1.900 ležišč v letu 2011. Število ležišči v hotelih se je povečalo z okoli 850 na 1.570 ležišč. Z rekonstrukcijami starejših objektov in številnimi novogradnjami se je tako močno povečala pestrost in kvaliteta turistične ponudbe v Mariboru.

Podatki kažejo, da je bila turistična ponudba v Mariboru v celotnem obdobju koncentrirana predvsem na hotelske objekte. Delež ležišč v hotelih se je s 50 % v začetku 70. let postopoma povečal na 80 % konec 80. let. V 90. letih se je v času krize močno zmanjšalo predvsem število ležišč v dopolnilnih namestitvenih zmogljivostih (gostišča s prenočišči, penzioni, zasebne sobe), tako da se je delež ležišč v hotelih povečal celo na 96 %. Po letu 2000 so v Mariboru pričeli nastajati novi manjši prenočitveni objekti v zasebni lasti. Njihova ponudba je postala bolj

pestra ter v različnih kvalitetnih in cenovnih razredih, zopet so se pojavile zasebne sobe, nastali so hostli. Delež ležišč v hotelih se je v letu 2010 zmanjšal na okoli 75 %, z izgradnjo hotela City v letu 2011 pa povečal na 83 %.

Še bolj kot ležišča pa je v Mariboru na hotelske objekte koncentriran turistični obisk. V 70. in 80. letih so v hotelih registrirali med 91 in 98 % vseh nočitev. Na prehodu v 90. leta se je ta delež znižal pod 90 %, v drugi polovici 90. let pa povečal celo na 99 %. Po letu 2000 se je, zaradi razširitve ponudbe prenočitvenih kapacitet, pričel postopoma zmanjševati; s 95 % v letu 2004 na 85 % v letu 2008. Leta 2011 hotelska ležišča predstavljajo 83 % vseh prenočitvenih zmogljivosti in v njih je registriranih 90 % vseh nočitev v Mariboru.

Slika 10: Delež turističnih ležišč v hotelih, delež nočitev v hotelih in delež zasedenosti turističnih ležišč v hotelih v Mariboru med letoma 1970 in 2011.
Vir: Letni pregledi turizma, 1970-2002; www.stat.si.

Zanimiv je tudi delež zasedenosti ležišč v Mariboru. V analizo so zajeta le ležišča v hotelskih objektih, v katerih je registrirana večina nočitev. Obdobje med letoma 1970 in 2011 lahko razdelimo v tri razvojna obdobja:

1. Med letoma 1971 in 1987 – obdobje viška turističnega obiska, v katerem je bil delež zasedenosti hotelskih ležišč relativno zelo visok, saj se je gibal med 65 in 75 %.

2. Med letoma 1988 in 2002 – obdobje krize, v katerem se je med letoma 1988 in 1990 delež zasedenosti zmanjšal z 60 % na 40 %, nato pa se je med letoma 1991 in 2002 v povprečju gibal med 20 in 30 %. Izredno nizek delež je spodbudil transformacijo turistične ponudbe ter prilagoditev le-te različnim skupinam turistov (glede na zahteve po kvaliteti in ceni prenočišč).

3. Med letoma 2003 in 2011 – obdobje, ko se z rastjo turističnega obiska povečuje tudi delež zasedenosti, vendar je še vedno na relativno nizki stopnji v primerjavi s prvim obdobjem. V povprečju se je gibal med 35 in 40 %, kar je nekaj manj kot je povprečje v Sloveniji (leta 2011 je znašal delež zasedenosti vseh ležišč v Sloveniji okoli 22 %, hotelskih ležišč pa 39 %). Na relativno nizek delež zasedenosti vpliva predvsem velika ponudba turističnih ležišč, ki se je v zadnjih letih še povečala. Delež zasedenosti drugih (nehotelskih) ležišč v Mariboru pa je še nižji.

7. Zaključek

Glede na navedene značilnosti stacionarnega turističnega obiska v Mariboru, lahko obdobje med letoma 1961 in 2011 razdelimo v štiri razvojna obdobja, s katerimi lahko opredelimo tudi glavne faze turističnega razvoja v Mariboru:

1. Med letoma 1961 in 1973 – obdobje razvoja, v katerem se je z novozgrajenimi in prenovljenimi prenočitvenimi objekti postopoma povečalo število turističnih ležišč z manj kot 500 na okoli 1.100, število turistov z okoli 50.000 na okoli 110.000 in število nočitev z okoli 80.000 na okoli 190.000. Turistični obisk je bil osredotočen predvsem na mestne hotele. Povprečne dolžine bivanja turistov so se gibale od 1,4 do 1,6 dni. Prevladovali so turisti iz Slovenije, Srbije, Hrvaške, Nemčije in Avstrije.

2. Med letoma 1974 in 1990 – obdobje viška turističnega obiska, ki sovpada z obdobjem viška gospodarskega razvoja v mestu. Število turističnih ležišč se je gibalo med 900 in 1.200, število turistov med 120.000 in 150.000, število nočitev pa med 200.000 in 245.000, s čimer se je Maribor uvrstil med deset največjih turističnih destinacij v Sloveniji. Povprečne dolžine bivanja turistov so se gibale od 1,6 do 1,7 dni. Večina turistov je Maribor obiskala iz poslovnih razlogov, pomemben pa je bil tudi rekreacijski motiv in tranzit. Močno so prevladovali turisti iz območja drugih republik bivše Jugoslavije (zlasti iz Srbije), ki so predstavljali kar 60 % vseh turistov in 65 % vseh nočitev v mestu. Med tujci so prevladovali turisti iz Nemčije, Italije in Avstrije.

3. Med letoma 1991 in 2000 – obdobje krize, v katerem se je, zaradi vojne na Balkanu, spremembe tranzitnih tokov, propada velikih industrijskih podjetij v mestu ter velikega izpada turistov iz drugih republik bivše Jugoslavije, močno zmanjšal obseg prenočitvenih zmogljivosti (zmanjšanje za 3-krat v primerjavi s predhodnim obdobjem) in turističnega prometa (zmanjšanje za 6-krat). Število ležišč se je v tem obdobju v povprečju gibalo med 420 in 750, število turistov med 23.000 in 40.000, število nočitev pa med 40.000 in 75.000. Povprečne dolžine bivanja turistov so se gibale od 1,6 do 1,7 dni. Med tujci so prevladovali turisti iz Nemčije, Italije, Avstrije, in Hrvaške.

4. Po letu 2000 - obdobje prestrukturiranja turistične infrastrukture in ponovnega turističnega razvoja, v katerem je, z vstopom Slovenije v Evropsko unijo, ponovno vzpostavitvijo tranzitnih tokov proti JV Evropi, razvojem terciarnega in kvartarnega sektorja ter razširitvijo turistične ponudbe v Mariboru, turizem ponovno postal pomembna gospodarska dejavnost v mestu. V letu 2004 je število stacionarnih turistov po 12 letih krize zopet preseglo 50.000, število nočitev pa 120.000. Največje je povečanje v zadnjih dveh letih, ko se je v letu 2011 število turističnih ležišč povečalo na okoli 1.900, število turistov na okoli 100.000 in število nočitev na okoli 220.000. Povprečne dolžine bivanja turistov so se gibale med 2,2 do 2,4 dni, kar kaže na rahlo povečan interes turistov za daljši obisk v Mariboru. Prav tako se je

povečal gravitacijski radij turistov, saj je opazno povečanje deleža turistov iz bolj oddaljenih držav. Kljub temu še vedno največ turistov prihaja v Maribor iz Nemčije, Hrvaške, Italije, Avstrije in Srbije. Z rekonstrukcijami starejših objektov in številnimi novogradnjami se je močno povečala pestrost in kvaliteta turistične ponudbe. V letu 2012 je rast turističnega obiska še bolj opazna, saj ima Maribor (v sodelovanju s partnerskimi mesti) v tem letu naziv Evropska prestolnica kulture in se v mestu odvijajo številne kulturne prireditve, ki so privlačne tudi za turiste.

Glede na obstoječo turistično ponudbo in navedene značilnosti stacionarnega turističnega obiska (zlasti kratko povprečno dolžino bivanja turistov, enakomerno porazdelitvijo turističnega obiska preko leta in večino nočitev registriranih v hotelskih objektih), kaže Maribor vse značilnosti turističnega kraja z razvitim mestnim turizmom. Turiste v mesto privlačijo predvsem staro mestno središče s kulturnozgodovinskimi spomeniki, razvita, pestra in kvalitetna turistična infrastruktura, mednarodno prepoznavne izobraževalne, kulturne in druge ustanove, številne poslovne, kongresne, kulturne, športne in etnološke prireditve, gospodarska razvitost Maribora kot drugega največjega mesta v državi, mednarodno pomemben prometni položaj ter slikovita okolica z reko Dravo, vinorodnimi Slovenskimi goricami in gozdovi na Pohorju, ki omogočajo pestro ponudbo za šport in rekreacijo (Horvat 1994).

Turistični potencial Maribora bi bilo potrebno v prihodnje še bolj izkoristiti, da bi se še povečal turistični obisk, obenem pa dopolniti turistično ponudbo tako, da bi se podaljšala povprečna dolžina bivanja turistov. Pri tem bi bilo v prihodnje potrebno biti pozoren na naslednje elemente turističnega potenciala in turistične ponudbe ter oblike mestnega turizma, ki so prisotne in se razvijajo v mestu:

- Mesto ima ugodno prometno lego z dobro avtocestno povezavo s sosednjimi državami, obenem pa njegova tranzitna lega na stičišču dveh pomembnih evropskih koridorjev (ki povezujejo SZ in JV Evropo ter JZ in V Evropo) omogoča razvoj tranzitnega turizma. Oteževalni dejavnik za razvoj turizma predstavljajo relativno slabe mednarodne železniške povezave in neobstoj rednih letalskih povezav na domačem letališču.

- Mesto ima relativno bogato zgodovinsko kulturno dediščino, ki pa ima žal le regionalni pomen, zato ne predstavlja mednarodno pomembnega turističnega potenciala. Z vidika mednarodne prepoznavnosti predstavlja najpomembnejši turistični potencial Lent z najstarejšo trto na svetu, ki bi morala postati eden najpomembnejših elementov turistične promocije in prepoznavne identitete mesta.

- Pomemben turistični potencial mesta predstavljajo mednarodno prepoznavne kulturne ustanove, dogodki in prireditve, vključno z množičnimi kulturnimi prireditvami (npr. festival Lent), na osnovi katerih bi se lahko še bolj razvil segment kulturnega in prireditvenega turizma. S tega vidika je izredno pomembno dejstvo, da ima Maribor v letu 2012 naziv Evropska prestolnica kulture.

- Mesto razpolaga s sodobnimi namestitvenimi kapacitetami, ki ponujajo dobre pogoje za poslovni turizem ter izvedbo različnih srečanj in kongresov. Z usmerjenim trženjem in specializacijo posameznih turističnih ponudnikov, kot tudi ciljno usmerjeno širitvijo kapacitet, bi se Maribor lahko razvil v eno vodilnih prireditveno-kongresnih destinacij v Sloveniji.

• V mestu in njegovi okolici se razvija športno-rekreacijski turizem, ki ima dobre pogoje tako v zimskem kot poletnem času. Vodilno mesto ima območje Pohorja z največjim smučarskim območjem v državi in najdaljšo progo za nočno smuko, ki sega do obrobja mesta. V mestu se nahajajo sodoben nogometni stadion in drugi športni objekti, v katerih se odvijajo številne mednarodno uveljavljene športne prireditve, ki privlačijo v mesto tudi turiste in predstavljajo pomemben element mednarodne prepoznavnosti mesta (npr. Zlata lisica).

• V mestu se nahaja izvir termalne vode, ki se izkorišča v rekreacijske in zdravstvene namene, vendar je njegova raba omejena. Potrebno bi bilo intenzivirati to ponudbo in jo še bolj povezati z obstoječo wellness ter medicinsko terapevtsko ponudbo v smislu razvoja sodobnega zdraviliškega turizma.

• Mladinski turizem je v mestu še na začetku razvoja, vendar predstavlja pomemben turistični potencial.

• Okolica mesta je poznana po odličnih vinogradniških legah in vrhunskih vinih, pomembni element turistične ponudbe pa so tudi vinske ceste, vinske kleti in vinoteke. Na tej osnovi bi se lahko v mestu in okolici razvila privlačna in celostna turistična gastronomska in enološka ponudba, prilagojena sodobnim trendom kulinaričnega povpraševanja.

Za povečanje obsega turističnega obiska ter doseganje ciljev strategije razvoja turizma (Strategija razvoja turistične destinacije Maribor-Pohorje 2010-2020 2011) bi bilo potrebno v prihodnje v Mariboru delovati predvsem na področju povečanja prepoznavnosti turistične destinacije, intenziviranja trženja turistične ponudbe, povečanja dostopnosti destinacije, razvoja specialnih turističnih produktov in programov, ki bi bili usmerjeni k posameznim ciljnim skupinam turistov (npr. poslovni, kongresni, mladinski, kulturni, prireditveni, športni, zdraviliški, velneški, idr. turizem), dviga kakovosti turističnih storitev ter izgradnje novih in obnove obstoječih turističnih namestitev ob upoštevanju principov trajnostnega razvoja.

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THE CHARACTERISTICS OF STATIONARY TOURIST VISIT IN MARIBOR BETWEEN 1961 AND 2011

Summary

According to the characteristics of stationary tourist visit in Maribor, the period between 1961 and 2011 is divided into four developmental stages, which could also be defined as main stages of tourist development:

1. Between 1961 and 1973 - a period of the development in which the number of tourist beds gradually increase from less than 500 to about 1,100, the number of tourists from around 50,000 to 110,000 and the number of overnight stays from around 80,000 to 190,000. Tourist visit was mainly focused on the town hotels. Average length of stay of tourists ranged from 1.4 to 1.6 days. Prevailed tourists from Slovenia, Serbia, Croatia, Germany and Austria.

2. Between 1974 and 1990 - a period of the peak of tourist visit, which coincides with the peak of the economic development in the city. Number of tourist beds ranged between 900 and 1,200, the number of tourists between 120,000 and 150,000, and the number of overnight stays between 200,000 and 245,000. Maribor is ranked among the top ten tourist destinations in Slovenia. Average length of stay of tourists ranged from 1.6 to 1.7 days. Most tourists visited Maribor for business reasons. Important were also recreational and transit motives. Prevailed tourists from former Yugoslav republics (especially from Serbia), which accounted 60% of all tourists and 65% of all overnight stays in the city. Among foreigners prevailed tourists from Germany, Italy and Austria.

3. Between 1991 and 2000 - a period of the mayor crisis in which, because of the war in the Balkans, changes in transit flows, the collapse of large industrial enterprises in the city and great decrease of tourist visit from other former Yugoslav republics, significantly reduced the accommodation capacity (reduction of 3 – times, compared to the previous period) and tourist visit (reduction of 6 times). Number of tourist beds ranged between 420 and 750, the number of tourists between 23,000 and 40,000, and the number of overnight stays between 40,000 and 75,000. Average length of stay of tourists ranged from 1.6 to 1.7 days. Among foreigners prevailed tourists from Germany, Italy, Austria and Croatia.

4. Since 2000 - a period of restructuring of tourist infrastructure and re-development of tourism in the town. This is due to the entry of Slovenia into the European Union, the resumption of transit flows to South-East Europe, the intense development of tertiary sector and the expansion of tourist offer in Maribor. In 2004, the number of stationary tourists after 12 years of crisis again exceeded 50,000, and the number of overnight stays 120,000. The largest increase is the last two years, when in 2011 the number of tourist beds increased to around 1,900, the number of tourists to around 100,000 and the number of overnight stays at around 220,000. Average length of tourist stays ranged from 2.2 to 2.4 days, which shows a slight increase in the interest of tourists for a longer visit to Maribor. It also increased gravitational radius of tourists, which is marked by increase in the share of tourists from more distant countries. However, still most of the tourists come from Germany, Croatia, Italy, Austria and Serbia. The reconstructions of older buildings and new constructions have greatly increased the variety and quality of the tourist offer. In 2012, growth in tourist visit is even more noticeable, since

Maribor (in collaboration with partner cities) has the title of European Capital of Culture.

Regard to existing tourist offer and characteristics of that landline tourist visit (in particular the short average length of tourist stays, an equal distribution of tourist visit over the year, majority of overnight stays registered in the hotel facilities), Maribor shows all the characteristics of a tourist destination with a developed urban tourism. Tourists are attracted to the city especially by the old town center with several cultural and historical monuments, developed, varied and high-quality tourist infrastructure, internationally recognizable educational, cultural and other institutions, many business, conference, cultural, sports and ethnological events, economic power of Maribor, as the second biggest city in the Slovenia, internationally important transit location and picturesque surroundings, with the river Drava, wine growing hills, and forests of Pohorje, which allow a wide range of sport and recreation possibilities.

NAVODILA ZA PRIPRAVO ČLANKOV V REVIJI ZA GEOGRAFIJO

1. Sestavine članka

Članki morajo imeti naslednje sestavine:
- glavni naslov članka,
- ime in priimek avtorja,
- avtorjeva izobrazba in naziv (na primer: dr., mag., profesor geografije in zgodovine, izredni profesor),
- avtorjev poštni naslov (na primer: Oddelek za geografijo Filozofska fakulteta Univerza v Mariboru, Koroška 160, SI – 2000 Maribor, Slovenija),
- avtorjev elektronski naslov,
- izvleček (skupaj s presledki do 800 znakov),
- ključne besede (do 8 besed),
- abstract (angleški prevod naslova članka in slovenskega izvlečka),
- keywords (angleški prevod ključnih besed),
- članek
- summary (angleški prevod povzetka članka, skupaj s presledki do 8000 znakov).

2. Citiranje v članku

Avtorji naj pri citiranju med besedilom navedejo priimek avtorja in letnico, več citatov ločijo s podpičjem in razvrstijo po letnicah, navedbo strani pa od priimka avtorja in letnice ločijo z vejico, na primer: (Drozg 1995, 33) ali (Belec in Kert 1973, 45; Bračič 1975, 15 in 16).

Enote v poglavju Viri in literatura naj bodo navedene po abecednem redu priimkov avtorjev, enote istega avtorja pa razvrščene po letnicah. Če je v seznamu več enot istega avtorja iz istega leta, se letnicam dodajo črke (na primer 1999a in 1999b). Vsaka enota je sestavljena iz treh stavkov. V prvem stavku sta pred dvopičjem navedena avtor in letnica izida (če je avtorjev več, so ločeni z vejico, z vejico sta ločena tudi priimek avtorja in začetnica njegovega imena, med začetnico avtorja in letnico ni vejice), za njim pa naslov in morebitni podnaslov, ki sta ločena z vejico. Če je enota članek, se v drugem stavku navede publikacija, v kateri je članek natisnjen, če pa je enota samostojna knjiga, drugega stavka ni. Izdajatelja, založnika in strani se ne navaja. Če enota ni tiskana, se v drugem stavku navede vrsta enote (na primer elaborat, diplomsko, magistrsko ali doktorsko delo), za vejico pa ustanova, ki hrani to enoto. V tretjem stavku se za tiskane enote navede kraj izdaje, za netiskane pa kraj hranjenja.

3. Preglednice in slike v članku

Vse preglednice v članku so oštevilčene in imajo svoje naslove. Med številko in naslovom je dvopičje. Naslov konča pika. Primer:

Preglednica 1: Število prebivalcev Ljubljane po posameznih popisih.

Vse slike (fotografije, zemljevidi, grafi in podobno) v članku so oštevilčene enotno in imajo svoje naslove. Med številko in naslovom je dvopičje. Naslov konča pika. Primer:

Slika 1: Rast števila prebivalcev Ljubljane po posameznih popisih.

Slika 2: Izsek topografske karte v merilu 1 : 25.000, list Kranj.

Za grafične priloge, za katere avtorji nimajo avtorskih pravic, morajo avtorji od lastnika avtorskih pravic pridobiti dovoljenje za objavo. Avtorji naj ob podnapisu dopišejo tudi avtorja slike.

4. Sprejemanje prispevkov

Avtorji morajo prispevke oddati natisnjene v enem izvodu na papirju in v digitalni obliki, zapisane s programom Word. Digitalni zapis besedila naj bo povsem enostaven, brez zapletenega oblikovanja, poravnave desnega roba, deljenja besed, podčrtavanja in podobnega. Avtorji naj označijo le mastni (krepki) in ležeči tisk. Besedilo naj bo v celoti izpisano z malimi črkami (razen velikih začetnic, seveda), brez nepotrebnih krajšav, okrajšav in kratic. Zemljevidi naj bodo izdelani v digitalni vektorski obliki, grafi pa s programom. Fotografije in druge grafične priloge morajo avtorji oddati v obliki, primerni za skeniranje, ali pa v digitalni rasterski obliki z ločljivostjo vsaj 120 pik na cm oziroma 300 pik na palec, najbolje v formatu TIFF ali JPG.

Avtorji morajo za grafične priloge, za katere nimajo avtorskih pravic, priložiti fotokopijo dovoljenja za objavo, ki so ga pridobili od lastnika avtorskih pravic.

Avtorji naj prispevke pošiljajo na naslov urednika:

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5. Recenziranje člankov

Članki se recenzirajo. Recenzijo opravijo člani uredniškega odbora ali ustrezni strokovnjaki zunaj uredniškega odbora. Če recenziji ne zahtevata popravka ali dopolnitve članka, se avtorju članka recenzij ne pošlje. Uredniški odbor lahko na predlog urednika ali recenzenta zavrne objavo prispevka.

POROČILO RECENZENTA

1. Avtor prispevka

2. Naslov prispevka

3. Recenzent (ime in priimek, znanstveni ali strokovni naziv)

4. Pomen prispevka (ali prinaša nova znanstvena spoznanja)
a) da
b) ne
c) delno

5. Primernost prispevkov (ali naslov primerno poda vsebino)
a) da
b) ne
c) delno

6. Uporaba znanstvenega aparata, ustrezno navajanje virov in literature
a) da
b) ne (opozori na morebitne pomanjkljivosti)
c) delno

7. Pripombe in predlogi za izboljšanje besedila (priložite na posebnem listu)

8. Priporočam, da se prispevek sprejme:
a) brez pripomb
b) z manjšimi popravki
c) po temeljiti reviziji (na osnovi pripomb recenzenta)
d) zavrne

Datum: Podpis recenzenta: