SOCIO ECONOMIC ANALYSIS OF THE NORTHERN REGION OF MONTENEGRO

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SOCIO-ECONOMIC ANALYSIS OF NORTHERN MONTENEGRO

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ABBREVIATIONS:

ADSL – Asymmetric Digital Subscriber Line
BDP – Gross domestic products
BNP – Gross National Products
CEED – Center for Entrepreneurship and Economic Development
DUP – Detail Urban Plan
EPCG – Electric power industry of Montenegro
EPS – Electric power industry of Serbia
FORS – Foundation for Development of Northern Montenegro
GWh – Gig watt per hour
GDP per capita – Gross National Product per capita
GUP – General Urban Plan
HPP – Hydro power plant
ICT Survey – Survey of Information and Communication Technologies
ISDN – Integrated Services Digital Network
ISSP – Institute for Strategic Studies and Prognoses
MIPA – Montenegrin Investment Promotion Agency
MONSTAT – Statistical office of Montenegro
MW – Megawatt
n.a. – not available data
SP – Spatial Plan
PPP – Purchasing Power Parity
PSTN – Public Switched Telephone Network
NORTH REGION – 13 municipalities (Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pljevlja, Pluzine, Rozaje, Savnik, Zabljak, Danilovgrad, Niksic)
NORTH SUB REGION – 11 municipalities (Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pljevlja, Pluzine, Rozaje, Savnik, Zabljak)
TPP – Thermo power plant
UNDP – United Nation Development Program
ZZZ – Agency for employment
SWOT – Strengths, Weaknesses, Opportunities and Threats
PREFACE

Organization Foundation for development of north of Montenegro (FORS Montenegro) with the support of CHF International has committed team of Institute for Strategic Studies and Projections from Podgorica with the assignment to create social-economic analysis of the northern region of Montenegro.

FORS has prescribed methodological framework for task conduction with quite clear survey aim, data collection manner including the questionnaire according to which survey team had collected the data’s. Time framework for task conduction was three months.

During task conduction project team has had severe obstacles in data collection process mainly thanks to Montenegrin statistical system deficiency that isn’t providing sufficient information regarding municipality level situation review. Moreover, quality of compiled data’s from the official sources can be questionable. Stated problems and lack of official sources data’s have been overcame by using secondary data sources, survey results of independent institutions within Montenegro as well as in direct communication with local governments which had been quite cooperative and ensured necessary available data’s.
PREAMBLE

Montenegro is territorially organized into 21 municipalities. Regional development strategy from 2005, which has been created by Development Secretariat, states that there is significant difference in Montenegro in three region’s development (southern, northern and central) whereas these regions have been observed as sub region according to the Spatial Plan of Montenegro. According to the Strategy southern sub region comprehends seaside municipalities – Bar, Budva, Herceg Novi, Kotor, Tivat and Ulcinj, central sub region comprehends following municipalities Cetinje, Danilovgrad, Niksic and Podgorica while northern sub region comprehends municipalities of Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje, Savnik i Zabljak.

Within socio-economic analysis of the northern region achieved degree of socio-economic development has been observed within two territorial districts – the northern region and the northern sub region. These two districts have been defined in a following manner:

- **The northern sub region** is consisted of 11 municipalities - Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje, Savnik and Zabljak
- **The northern region** is consisted of 13 municipalities from which 11 belongs to the northern sub region (Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje, Savnik and Zabljak) and also includes 2 municipalities from the central region – municipalities of Niksic and Danilovgrad.

Main tasks of the socio-economic analysis were:

- Available data collection by municipalities according to the unique methodology what will enable data comparison among municipalities,
- Ensuring basis for region, sub region’s and certain municipalities potentials defining as well as for obstacle defining,
- Ensuring basis for SWOT analysis preparation for the region, sub region or certain municipalities,
- Ensuring basis for new regional development strategy defining,
- Represents of the founding documents for central and local governments for decision making process which impels economic initiatives in the north.

Analysis represented in this document is being divided into two basic parts. Within the first part is given analysis of geographic position and natural resources, human resources, demographic trends, infrastructure as well as economy of the northern region and its municipalities. In the second part SWOT analysis draft have been presented and its based on collected data during analysis realization as well as on collected information and evaluations from various documents which had been used during the analysis.
SUMMARY

The northern region comprehends the northern and northeastern part of Montenegro. The northern region of Montenegro pleads territory of 9,870 km² what makes 70% of overall territory of Montenegro. It consists from 13 municipalities (11 municipalities in the northern sub region and two municipalities in central region). Total number of inhabitants in mid 2006 in the northern region was 284,133 the northern region and sub region have plenty of natural resources that haven't been used sufficiently but represents significant basis for this region’s future development.

Comparing to remaining parts of Montenegro the northern region has thicker river network. Majority of rivers on the north are characteristic by tremendous downfall what makes them favorable for hydro energetic usage. Nevertheless, just part of the potential has been used so far. Concerning capacities several rivers are singled out: Moraca, Piva, Tara, Lim, Ibar, Cehotina and Zeta. Up till now two higher hydro plants have been built: „Perucica” on Zeta river (installed power of 307 MW) and „Piva” on Piva river (installed power of 342 MW). There are six minor hydro plants (Glava Zete, Slap Zete, Savnik, Podgor, Lijeva Rijeka and Rijeka Musovica) whose total power is 8 MW.

An important characteristic of the northern region's rivers is pureness of water. Up till now six factories for natural spring water bottling have been opened but because of the tremendous potential another nine factories are planned to be open and they will be situated in six northern municipalities.

Within the northern region there are several natural lakes as well as five artificial lakes. Nevertheless, total lakes surface in the northern region is significantly smaller than Skadar lake surface. Natural lakes don't have higher economic values except as potential tourist destinations. On the other hand economic significance of artificial lakes is higher. From the artificial lake the most significant is Pivsko, which was created by huge damn and hydro plant building during locking process of the Piva river rack. Besides, another four lakes exist in a territory of Municipality of Niksic: Krupac, Slano, Liverovicko and Bilecko lake.

The northern region is the most forested part of Montenegro. Total forest's area within this region is 4,590,22 km² or about 50% of region's total area. Tremendous forest wealth of the region is the basis of the wood processing industry. Beside forest wealth, mountain pastures are basis for traditional cattle breading, which still has significant role.

The northern region is also very rich with minerals and ores. Within this region there are energetic, metal raw materials, non-material and mineral resources. Coal is one of the most significant minerals in Montenegro. Identified balance reserves of micro lignite coal are in Pljevlja area (230 millions t), which has been produced by shaft system for the needs of industry and wider consumption. Red bauxite is the most significant metal raw material in overall Montenegro. Up till now 90 bearings and features of red bauxite has been discovered.

Despite natural resources wealth, transition process, economic recession and situation in Montenegro during last 15 years were factors that brought to decreasing of wealth and decrease of population size within the northern region and especially the northern sub region municipalities. The northern sub region municipalities are recording negative demographic trends – decrease of new births and population's migration towards more developed parts of Montenegro mainly Podgorica and seaside municipalities as well as other countries.

Unemployment caused by economic recession is mainly present in the northern region having in mind that negative trends have been recorded on Montenegrin level were mainly in the industry sector which has had significant share in the northern region's economy. Employment rate in the northern sub region i.e. share of employees in total working capable population (population between 15 and 64) in 2007 was 51.7%. Within the northern region employment rate in the same period was 47.2% and have been caused by relatively low employment rate in Municipality of Niksic. Total number of employees in the northern
sub region is 62.439 while total number in the northern region is 92.034 what makes 28.6% or 42.1%, respectively from the total number of employees in Montenegro.

Observed by sectors, services sector has highest share in total employment in the northern sub region and makes 69.4% from the total number of employees whereas public services (administration, education and health) makes 26.5% while commercial services (trade, tourism, transport and etc) makes 42.9% of total employment. On Montenegrin level employment in services sector is 76.6% of total employment while industry employs 14.6% of total employees’ number and remaining 8.9% have been employed within agriculture sector.

Employment structure by ownership in the northern region shows that as well as in case of national economy employment in private sector is dominant - 56.3% of total number of employees works in private sector. In Montenegro’s level private sector employs 61.6% of total employees’ number. State sector share in employment of the northern sub region is more significant comparing to national average. Namely, within the northern sub region in companies and institutions in the state sector works 42.3% of employees’ while in the Montenegrin level that share is 36.6%.

Average net wage (wage without taxes and contributions) €251 monthly while in 2007 it was increased on € 308 monthly. Average net wage is for 8.8% lower comparing to national average. If we observe northern region then net average is higher than national average thanks to high level of wages in Municipality of Niksic, which is above national average.

Unemployment represents a tremendous problem within the northern region and sub region. Unemployment rate in the northern sub region in 2007 was 17.8% while in the northern region within the same period was 17.2%.

Human development index in the northern sub region in 2004 was 0.765 while in the central sub region index was 0.813 and in the southern sub region was 0.802 what means that northern sub region was on mid level of development while two remaining sub region are highly developed in sense of human development.

Relief and climate factors influence is extremely unfavorable for construction and especially maintenance of infrastructure. Alongside unfavorable relief, maintenance of road networks presence additionally complicated by the fact that majority of roads was never brought to projection stage as well as fact that there numerous high slopes and descents which are especially problematic during winter season. Infrastructure problems in this part of Montenegro are: partially unfinished road infrastructure, maintenance problems and numerous critical points, extremely complicated winter season maintenance caused by relatively high road's network and slopes and folds in mountain area and therefore numerous complex infrastructure objects which has to be maintained (bridges, tunnels); technical-technological obsolescence of road traffic companies.

The northern region of Montenegro has dense road network of 72.865 km. the most significant are main and regional roads in total length of 857 km while remaining are local and non categorized roads. Half (50%) of 947 local and non-categorized roads are asphalted roads. From 857 km of regional and main roads 90% have been asphalted. Density of main and regional roads is 13 km on 100 km². More than 66% of regional and main roads are older than 25 years.

Throughout mountain area of Montenegro goes railway road Bar-Belgrade. This railway contributed significantly to this regions development. Railway passes through Kolasin, Mojkovac i Bijelo Polje. Municipalities of Niksic and Danilovgrad are also connected with Podgorica and Bar with railway network. On this railway network is being conducting reconstruction so its currently out of function.

Air traffic in the northern region isn’t developed. Nevertheless, there is a secondary air network in Montenegro consisted of three small airports in Niksic, Berane and Zabljak. These airports are being used in sport purposes.
Overall water supply system within this region is state owned. Water from these springs is almost not refined; chlorination is only used process and in many cases not even this method is being use. Another problem of wastewater drain system is emission of large quantities of wastewater drain into river flows. Depots within region are mainly non-planned, places for them are just improvises in order to solve waste treatment in a short run.

EPCG is currently only company that produces, transmits and distributes electric energy in Montenegro and its' owned by the state majorly. Hydro energetic system analysis shows that over 75% of production capacities have been installed in hydro plants. There are two big hydro plants: HP Perucica smaller seven and I HP Piva. Increasing electric energy deficit as well as consumption increase and fact that Montenegro is importing third of total energy is emphasizing necessity for new production capacities building and new investments in energy sector.

Industrial infrastructure objects such are technological parks, business incubators and etc doesn’t exist in any northern sub region and region’s municipality. Nevertheless in all municipalities exist certain industrial zones which are determined by plan documentation.

Information society development degree in the northern region is lower than in central or southern. When it comes to households’ number with PC percentage in Montenegro overall was 38% in 2006. In the field of fixed telephony overall region is being characterized by high rate of fixed telephony presence in households especially in Rozaje and Berane. In average 92% of households in the north has mobile phone comparing to fixed telephony average of 79%. Average number of mobile phones by household in 2006 was 2.3. Total number of Internet users in 2006 was 21.274.

Educational system in northern region is divided into three segments: primary, secondary and higher education. Within the northern sub region there are 101 elementary schools with 223 additional departments and 23 high schools. Higher education is presented on a universities level and there are no age limitations for such education type. Within University of Montenegro there are Philology faculty in Niksic and departments of Economic, Law and Agricultural faculty in Bijelo Polje. Within Philology faculty there are departments for: philosophy and sociology, tutorship program, Serbian language and literature, Russian language and literature, Italian language and literature, English language and literature, history and geography and physical culture. There is also High medical school in Berane.

In the northern region there are 4 general hospitals in biggest region’s municipalities – Niksic, Bijelo Polje, Pljevlja and Berane. In other municipalities there are health stations except in Zabljak and Šavnik where there are only special hospitals. There is only one special hospital for pulmonary diseases in Niksic. Within this part of Montenegro there are no private hospitals but there are 24 private health institutions in general.

Social care in the northern region is being achieved through existing institutions. There are 10 institutions, which are dealing with social and childcare and are being financed from budget. Within this region there are 6 Social work centers in Niksic, Pljevlja, Bijelo Polje, Berane, Plav and Rozaje. Although there are 5 refugees’ collective accommodation centers’ in municipalities of Kolasin, Niksic, Berane, Plav and Rozaje.

Within Employment agency of Montenegro there are for Labor bureaus in: u Niksic, Berane, Pljevlja i Bijelo Polje. There are even some offices within this Agency in certain municipalities.

The northern region has relatively developed sport infrastructure. In certain municipalities infrastructure could be significantly improved on a sport club and interested individuals well being. Current sport infrastructure is not being used in adequate manner. In 13 municipalities of the northern region there are 7 stadiums as urban (5) as minor sports stadiums (2). Football stadiums exist only in 5 municipalities. Within this region there are 4 sport centers in municipalities of Niksic, Berane, Bijelo Polje and Kolasin and 6 sport halls. Alongside stated sport infrastructure there are stadiums for minor football, tennis courts, martial arts halls, and handball, volleyball and basketball courts. Sport infrastructure in this region satisfies needs in quantitative manner but quality is quite poor and that demands additional investments.
In 2006 value of achieved GDP in the northern sub region was €248,04 millions which is 60% increase comparing to 2001. GDP per capita in the northern sub region in 2006 was €1,289,2 or 40.2% of national GDP per capita. With the inclusion of Niksic and Danilovgrad GDP per capita is €1,777,1 which makes 55% of national GDP per capita. These results show that northern region is lacking behind remaining part of Montenegro.

According to 2001 data's in the northern region's domestic product dominant share belongs to industry 54.2%, services makes 32.7% while agriculture is 9.7% and construction 3.4%.

The northern region is being interested for investments in mining and industry, wood processing and tourism. Nevertheless, interest of investors for investments in the northern region is far less than theirs interest for investments in other regions of Montenegro. One of the first FDI's in Montenegro was in Niksic by Belgium's Interbrew into Niksic brewery. Municipality of Niksic is also very interesting for investments because of Ironworks factory and Bauxite mine. Opština Nikšić je, takođe, zbog Željezare i Rudnika Boksita veoma interesantna za ulaganja. According to available data's FDI's in 2000-2007 periods only in Niksic were about €24 million. Municipalities of Kolasin, Berane and Mojkovac are also being interested for foreign investors.

Within the northern region in 2006 has been registered 4.966 companies form which 3.118 is from the northern sub region. Analysis of number of companies (excluding registered entrepreneurs) on 1.000 inhabitants’ shows that northern sub region average is 13 companies on 1.000 inhabitants while average for northern region is 17 companies on 1000 inhabitants. Observed by ownership type in all municipalities the highest number of companies is in private ownership. Northern region in total has achieved turnover of €682 millions in 2005 and €908 millions in 2006. Although the northern region has achieved negative net financial result i.e. net loss of €47.5 millions (in 2005) and €48.6 millions (in 2006). Highest revenue in total northern sub region level is being achieved in following sectors: wholesale and retail (45% of total achieved revenue), processing industry (21%) and stone and mining sector (14%). Tourism had share of less than 1% and agriculture almost 5%. Wholesale and retail is sector that has brought highest net profit. Processing industry and stone and mining sector had highest contribution to the negative financial result of overall region.

Basic barriers for business start up and conduction is: non-loyal competition, high taxes and contributions, administrative barriers, frequent changes in legal and regulatory framework and infrastructure.

Within the northern region of Montenegro there are 10 banks. On each 5.700 of inhabitants of the northern region goes one bank's organizational part (filial, branches and offices). From total banks' number 32.7% concerns to northern region. Beside bank in the northern region there are also micro credit institutions and insurance companies. According to 2006 data’s from total placed resources by micro credit institutions 26.1% is being given to the northern region.

Agriculture production can be significant developing resource of the northern region. Besides individual producers and several companies, which are involved in agro business, there are also few cooperatives. Among them agriculture cooperatives are dominant (21 in the region) which is understandable according to this regions attractiveness for such business. Within northern region there id only one beekeepers cooperative and 3 are 22 agro-economic cooperatives in total. Agricultural land by usage categories is being divided on arable land and meadows. Total arable land within the northern region in 2006 was 146.739 or 77.54% of total arable land in Montenegro while total arable land in the northern sub region was 125.956 (66.56%). Total area of meadows in the northern region is 238.247 ha or 73.20% of total meadows area in Montenegro.

When it comes to fruit production within these region apples, plums and pears are dominant. Total number of growing trees of apples, pears and plums in this region in 2006 is 342,650, 140,692 and 1.058,970 respectively. Cattle breading is one of the most developed segments of agriculture. The northern region is absolutely favorable for this business type development. At the beginning of 2007 number of beefs, pigs and sheep in the northern sub region was 82,587, 9,757 and 186,842 respectively.
Montenegro has tremendous potential to develop various tourist products within the northern region during as summer as winter. The most popular destinations are Zabljak and Kolasin. Nevertheless, they still generate quite small tourist arrivals. Main reason for low tourist arrivals level is still non-developed tourist supply, low capacity level (especially hotels) as well as bad infrastructure. Within the northern region there are 4 national parks, which give tremendous tourism development opportunity for Montenegro. Besides mountain and winter tourism there are significant potentials for development of eco, agro, religious and health tourism. According to 2006 data’s from all tourists that have visited Montenegro almost 4.0% have visited her northern sub region. Two municipalities: Zabljak and Kolasin have been visited by almost 65.5% of all northern sub regions’ tourists and they have achieved almost same percentage of night stays (69.8%). The highest number of night stays has been achieved in Zabljak (50.2%). Accommodation capacities in the northern sub region in 2006 were about 2.5% of total accommodation capacities in Montenegro.
I PART

SOCIO ECONOMIC ANALYSIS OF THE NORTHERN REGION OF MONTENEGRO
1. GEOGRAPHY AND TOPOGRAPHY

Montenegro is located in southeastern Europe, or the Western Balkans. Geographically it can be located as the southernmost part of the Dinar Mountains with its coast on the southeastern part of the Adriatic Sea. The territory of Montenegro has the shape of a distorted quadrant with peaks in the north, south, west and east. The distance between the westernmost and easternmost point is 166 km. The distance between the southernmost and northernmost point is 193 km. The geographic center of Montenegro in the Moraca river spring area from which any point in Montenegro is no more than 90 km away, with the exception of Ulcinj, the southernmost part.

Montenegro has a total area of 13,812 km². Compared to other European states, Montenegro is larger than only seven countries – Andorra, Luxemburg, Liechtenstein, Malta, Monaco and the Vatican. It is also larger than the Greek island of Crete. According to relief structure criteria, climate and vegetation, economic indicators, hydrographic characteristics, as well as to historical-geographic development, we can define three main geographic regions: the Montenegrin coast, sub-Mediterranean Montenegro and mountainous Montenegro. There is another debate among geographers concerning the northern and southern geographic regions of Montenegro: the first is comprised of 13 municipalities while the second is comprised of 8 municipalities. This document analyzes the northern region of Montenegro, which includes 13 municipalities – the 11 municipalities of northern sub-region (Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje, Savnik and Zabljak) and the 2 municipalities of the central sub-region (Niksic and Danilovgrad).

The length of the mainland border of Montenegro is 614 km. The longest mainland border is with Bosnia and Herzegovina to the northwest (225 km) and the shortest mainland border is with Croatia (14 km) to the west. Montenegro borders with Albania to the southeast (172 km) and with Serbia (203 km) to the northeast. Southwest Montenegro has wide access to the Adriatic Sea. The coastal line is 293 km long, which is almost equal to the half of the mainland borders.

1.1. DESCRIPTION OF THE NORTHERN REGION

The sub-northern region is in the north and northeastern part of Montenegro. It is divided from sub-Mediterranean Montenegro with the mountain range Golija-Vojnik-Maganik-Zijevo. Alongside the municipalities of Niksic and Danilovgrad, located in the sub-Mediterranean region, the northern sub-region has an area of 9,781 km², or 70% of the total area of Montenegro. In 2006 the total population of the northern region was 284,133.

Deep river valleys with narrow canyons; basin extensions and the highest mountains in Montenegro are the main relief characteristic of this region, which were created by various glacial, fluviol, and tectonic pressures. The highest mountains extend from Maglic and Volujak to the northwest through Durmitor, Sinjajevina and Bjelasica in central area to Prokletije in the southeast. The deep and narrow valleys of the Piva, Tara, Moraca and Lim rivers divide these mountains. The widest basins are in the Montenegrin Polimlje. The erosion of tectonic and glacial geneses formed the basins and river valleys. Despite the high altitude, they are deeply down casted compared to the surrounding mountains. The Pljevlja area in the northwest is a broad limestone plateau, divided by river valleys and small fields. Pljevlja’s basin is the widest in the region while the Ljubisnja Mountain is the most imposing relief form.

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1 Niksic and Danilovgrad are municipalities that are part of sub-Mediterranean Montenegro but have been included in this analysis with the northern region of Montenegro
Table 1.1: Review of the northern region's municipalities

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Area in km²</th>
<th>Share of municipal area in the total area of Montenegro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>283</td>
<td>2.0%</td>
</tr>
<tr>
<td>Berane</td>
<td>717</td>
<td>5.2%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>924</td>
<td>6.7%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>897</td>
<td>6.5%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>367</td>
<td>2.7%</td>
</tr>
<tr>
<td>Plav</td>
<td>486</td>
<td>3.5%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>1346</td>
<td>9.7%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>854</td>
<td>6.2%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>432</td>
<td>3.1%</td>
</tr>
<tr>
<td>Savnik</td>
<td>553</td>
<td>4.0%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>445</td>
<td>3.2%</td>
</tr>
<tr>
<td>Northern subregion</td>
<td>7,304</td>
<td>52.9%</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>501</td>
<td>3.6%</td>
</tr>
<tr>
<td>Niksic</td>
<td>2,065</td>
<td>15.0%</td>
</tr>
<tr>
<td>Northern region</td>
<td>9,870</td>
<td>71.5%</td>
</tr>
</tbody>
</table>

Source: MONSTAT, Statistical Yearbook 2006

The northern region has elements of triassic origin with metamorphosed layers of paleolithic slates in the southeast. The crass terrains are rarely bare, whereas fertile ground is mostly found in the vast basins on the paleogene layers. Older Triassic karst prevails in the area of Parish of Niksic. The riverbanks of Piva, Tara and Lim, which make river terraces at many sites, belong to the youngest, quaternary layers.

Northern Montenegro territorially coincides with the Montenegrin part of the Black Sea's confluence, with the exception of the Moraca River, whose upper flow belongs to the Adriatic Sea's confluence. The river network is denser in the eastern part of sub region, even tough Piva and Tara are large rivers, and they are without any significant confluentes. Piva, Tara and Cehotina flow to the northwest to Drina, Lim flows to the north, also towards Drina, while Ibar flows to the east, i.e. north towards West Morava and Zeta and Moraca to the south towards Skadar Lake. Such radial disposal of river network has been determined with high mountains disposal around Majority Rivers springs on southeastern of Sinjajevina mountain slopes.

Many rivers have been characterized by narrow valleys, which in certain places have sharp canyon forms. The Tara canyon is 78 km long and 1,300 m deep, which is the deepest canyon in Europe. The large slopes characterized the Mountain Rivers, while standpipes have pluvial characteristics because they depend on rain and snow factors, with spring more reported than autumn because of snow melting in the mountains.

There are numerous lakes in the northern region but their total surface is significantly smaller than the Skadar Lakes'. Most of them are in the Durmitor National Park and they are of glacial genesis stiffened to impervious slate sediments. The rack icing of the moren sediments created them. Beyond the Durmitor region there is Plav Lake and Biogradsko Lake. Plav Lake (1.99 km²) is located on the northern side of Prokletije Mountain while Biogradsko Lake is located on Bjelasica mountain at a slightly higher altitude (1,094 m). Pivsko Lake is an artificial lake, made by the rack's division with a construction barrage (220 m) on Piva River during construction of hydro plant “Piva” in the period from 1967 to 1975.

The north region is the most forested area in Montenegro with a total area of 4,590.22 km² or about 50% of the regions' total area. The beech forest is the broadest area of natural vegetation in Montenegro. As the altitude increases to the 300-400m zones, there are mixed forests of beech and fir in many places. The forests (pine, balkan edem) have high tree trunks on the vapnen terrains above 1000 m in altitude. Above the forest zones, there are grass vegetation and pine trees. In lower, warmer and dryer places, there are
oak forests with hornbeam in some spots. These are mainly in the Piva, Komarnica and Tara river valleys and in the minor oasis of the Lim and Cehotina river valleys.

The population density in the northern sub-region is the lowest in Montenegro. According to data from a 2003 survey the largest population density is in Bijelo Polje, Rozaje and Berane (from 49 to 54 inhabitants per 1km²), while the lowest is in Pluzine, Savnik, Zabljak and Kolasin (from 5 to 11 inhabitants per 1km²). There is a greater population density in river valleys and basins, but the population in those areas is mainly concentrated in settlements.

The settlements in the high mountains at 1400-1700 m altitude are the highest permanent settlements in the former Yugoslavia. Zabljak is the highest settlement in all of southeastern Europe. In the northern and eastern part of region there are more settlements with larger populations because the broad basins and valleys have more favorable settlement conditions. This includes better accessibility and a higher density of rivers and fertile terrains. The biggest towns are situated in fields, basins and valleys (including Pljevlja, Bijelo Polje and Berane).

In previous years the population of this region has generally fallen. Until the beginning of the 1970s the population was rising, but even then the population start to decrease in certain municipalities. With the 1991 and 2003 surveys, one can be observe that the population fell in all municipalities excluding Rozaje.

The northern sub-region is the least developed area in Montenegro. The area north of the Tara and Montenegrin Polimlje has favorable conditions with more fertile terrains, better water supply and greater forest wealth, and the basin enables stronger dwellings as well as the development of cattle breeding and fruits and vegetables production. Wide mountain pastures are the foundation for traditional cattle breeding, which to this day plays a significant role. Alongside cattle breeding the most significant forest sector is the wood industry. The Northern region has tremendous resources of coal and bauxites. The only waterpower from the Mountain Rivers has been on the Piva River. There is no river and air traffic. The stretch of railway Beograd - Bar has significantly contributed to this region's development, and allows for the building of infrastructure, even in the winter.

The municipalities of Niksic and Danilovgrad make up the central part of Montenegro with a total area of 2,566 km² or 18.57% of Montenegro. The western and northeastern areas are at an altitude between 500 and 100 m while the mountains dividing the Northern region for the rest of Montenegro have an altitude of 1,500m. The central part includes the Bjelopavlici plain, as well as plains in Niksic (Niksic’s and Grahovo’s karst fields). In geologic configuration and structure prevails Creda age karst while in the parish of Niksic prevails upper Triyas age.

The climate in these two municipalities is sub-Mediterranean with elements of a continental climate in higher daily and annual temperature amplitudes. The average annual temperature in Niksic is 10.9°C while in Danilovgrad it is 14.5°C. The central part of Montenegro gets the greatest amount of rainfall in Montenegro. Annual rainfall is more than 1,900 mm. The majority of these territories is characterized by significant rainfall hydrographic anomalies. It is an anomaly that despite greatest amount of rainfall in Europe, there is an extreme lack of surface water. There are three artificial lakes in the Municipality of Niksic: Krupac, Slano and Liverovici.

1.2. RELIEF CHARACTERISTICS

In geomorphologic terms, the Dinar massif of the northern region is relatively young. The current relief is largely a result of exogenous powers. Within karst the most powerful are corrosion processes and in the high mountains that are glacier erosion. In morphological sense, the following areas can be identified:

The old Montenegrin karst plain area (Katun karst, Grahovo karst, Rudine, Banjani i Krivosije) to Golije,
Piva and Ljubisnja Mountain on the north, which is one of the most typical karst area in the world. It is deep karst region (prevailing karst rocks are couple of thousands of meters deep) without permanent surface flows.

The sub-Mediterranean valleys area (in the region of Niksic and Danilovgrad) where Niksic field (66.5 km²) and Bjelopavlicka plain (72 km²) are particularly Niksic field is the highest karst field in Montenegro created by young corrosive process and covered by fluvial-glacial sediments thicker more than 10 meters.

High karst mountains and plains area, which comprehends area northern from Niksic and Danilovgrad. It is consisted from high mountains of Dinar mountain massif (highest cliffs are mainly higher than 2000 m). There are Triass karst prevailing in this area, plains and deep and narrow river canyons. Because of mainly karst sediments from Creda and Trayas period karst relief is well developed with preserved glacial traces (moren sediments in river valleys and ice lakes). In the northwestern and in the central parts prevails covered karst while the Prokletije massif has been characterized by sour karst. A deep canyon is valley of Tara, Piva, Komarnica, Moraca and other rivers contributes to vertical diversification of relief.

The northern and northeastern area of Montenegro includes Cehotina, upper Lim and the Ibar region. The average altitude of this area is 800 m. It is divided by rivers valleys and is surrounded by high mountains. Certain elements of younger Paleozoic and older Mesozoic formations prevail in this region. The valleys of Lima and Cehotina also have composite figure with a few basin extensions covered by younger thick lake sediments. In Ibar’s spring glacier relief forms have been preserved.

The northern region has forty-two, big and small mountains with height of 1,297 to 2,524 metres. Some are part of bigger mountain chains prevailing in the region.

The highest peak in the northern region is Rosit (on Prokletije Mountain) with a height of 2,524 m.

The northern region in hydrographic sense has two sources: the Adriatic and the Black seas. All rivers have their confluence with the Black Sea, with the exception of the Moraca, Gracanica and Zeta rivers, which have their confluence with the Adriatic. Watershed between confluences passes through the high mountain cliffs of Golija, Vojnik, Lola, Sinjajevina and Zijovo.

Table 1.2: Mountains in the Northern region of Montenegro

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Mountain</th>
<th>The highest point in m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Zeletin</td>
<td>2,126</td>
</tr>
<tr>
<td>Berane</td>
<td>Divljak</td>
<td>1,728</td>
</tr>
<tr>
<td>Berane</td>
<td>Bjelasica</td>
<td>2,139</td>
</tr>
<tr>
<td>Berane</td>
<td>Mokra planina</td>
<td>1,933</td>
</tr>
<tr>
<td>Berane</td>
<td>Moravac</td>
<td>1,756</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Lisa</td>
<td>1,503</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Moravac</td>
<td>1,356</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Komov</td>
<td>2,487</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Sinjajevina</td>
<td>2,203</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Maqanik</td>
<td>2,104</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Bjelasica</td>
<td>2,033</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Lukavica (Kapa moracka)</td>
<td>2,226</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Javorje</td>
<td>1,683</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Lola</td>
<td>2,032</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Bjelasica</td>
<td>2,139</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Sinjajevina</td>
<td>2,203</td>
</tr>
<tr>
<td>Plav</td>
<td>Prokletije (vrh Rosit)</td>
<td>2,524</td>
</tr>
</tbody>
</table>
There are 18 rivers in the Northern region of Montenegro. The hydrograph in the region is very complex, both in terms of the density of the river network, the volume of water and the varied composition of the soil. In one part of the municipality of Niksic, a deep karst area (Katun karst, Rudine and Banjani) belongs to areas without surface flow towards the sea. The river network is most dense in the east, although the Piva and Tara rivers in the northwest are large, albeit with few confluents.

Table 1.3: Rivers in the Northern region of Montenegro

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Rivers²</th>
<th>Total length (km)</th>
<th>Total length within northern region (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Zlorecica</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Kuckaja</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Perucica</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Lim</td>
<td>215</td>
<td>86</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Kraljstica</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Trebacka rijeka</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Berane</td>
<td>Lim</td>
<td>215</td>
<td>86</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Lim</td>
<td>215</td>
<td>86</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>97</td>
<td>n.a.</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Tara</td>
<td>158</td>
<td>158</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Tara</td>
<td>158</td>
<td>158</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>215</td>
<td>86</td>
</tr>
<tr>
<td>Plav</td>
<td>Grncar</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Municipality</td>
<td>Rivers²</td>
<td>Total length (km)</td>
<td>Total length within northern region (km)</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Plav</td>
<td>Vruja</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Plav</td>
<td>Dolja</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Plav</td>
<td>Ljupa</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Plav</td>
<td>Plavskija</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Plav</td>
<td>Komaraca</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Plav</td>
<td>Velička rijeka</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Plav</td>
<td>Murinska rijeka</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Cehotina</td>
<td>126</td>
<td>100</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Piva</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Vrbnica</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Ibar</td>
<td>272</td>
<td>30</td>
</tr>
<tr>
<td>Savnik</td>
<td>Komarnica</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>Savnik</td>
<td>Bukovica</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Savnik</td>
<td>Tusina</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Tara</td>
<td>158</td>
<td>158</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>Zeta</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Niksic</td>
<td>Zeta</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Niksic</td>
<td>Gracanica</td>
<td>27</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: The Ministry of Agriculture, Forestry and Water Management (Water economy basis of Montenegro, 2001)

The river levels depend on the amount of precipitation. The Piva, Tara and Lim river levels reach their maximum in the spring and autumn, and their minimum in the summer and winter. Rivers that have a confluence with the Adriatic reach their maximum during the high-rain period in autumn, mainly in November.

In the northern region there is a larger number of smaller lakes. Lakes occur on impervious grounds and are of glacial origin. The highest lake is Plav Lake (1.99 km²) while the deepest is Black Lake (49m) on mount Durmitor. There is a total of 18 lakes, both big and small, on mount Durmitor.

Table 1.4: Lakes in the North region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Name</th>
<th>Area³ in km²</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>Lake Pesica</td>
<td>0.037</td>
<td>Natural</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Lake Biogradsko</td>
<td>0.23</td>
<td>Natural</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Lake Sisko</td>
<td>0.029</td>
<td>Natural</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Lake Kapetano</td>
<td>0.092</td>
<td>Natural</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Lake Zabojsko</td>
<td>0.027</td>
<td>Natural</td>
</tr>
<tr>
<td>Plav</td>
<td>Lake Plavsko</td>
<td>1.99</td>
<td>Natural</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Lake Pivsko</td>
<td>112.5</td>
<td>Artificial</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Lake Veliko</td>
<td>n.a.</td>
<td>Natural</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Lake Susicko</td>
<td>0.076</td>
<td>Natural</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Lake Trnovacko</td>
<td>0.399</td>
<td>Natural</td>
</tr>
<tr>
<td>Savnik</td>
<td>Lake Poscenska</td>
<td>0.015</td>
<td>Natural</td>
</tr>
</tbody>
</table>

² Confluents of Moraca are: Mrtvica, Sjevernica, Ratnja, Ibrija, Kostanica. Confluents of Tara are: Drcka (15 km), Skrbusa (7 km), Recinska rijeka, Vranjeska rijeka, Pjesanica (5,5 km), Svinjaca (13 km), Pcinja (9,5 km), Očića, Plasnica (14 km), Jezerska (11,5 km), Draga (15 km), Selarska rijeka (17 km), Šitaricka rijeka (13,5 km), Confluents of Cehotina are: Kozicka rijeka (10 km), Dubocica (16,3 km), Jugostica (5 km), Gornja rijeka (12 km), Kamenica (9 km), Buna (10 km), Kozica (10 km), Luska rijeka (12,5 km), Krasavska rijeka (7,5 km), Supljica (6 km), Mucina (17 km), Veznica (18 km), Voloder (36 km), Kortnik (12,5 km), Mjedenik (8 km) i Skopotnica (17 km). Confluents of Lim are: Velicka rijeka (7 km), Sekularska rijeka (15,5 km), Kaludarska (20 km), Bnpjica (7 km), Dapiskica rijeka (14,5 km), Ljesnica (23 km), Trnosa (11,5 km), Crnca (10 km), Bistrica (16 km), Murinska rijeka (7,5 km), Gradinsica (12 km), Vinicka (7 km), Brzava (10 km), Ljubovidja (36 km), Ljesnica (8 km), Bukovacka rijeka (20 km).
<table>
<thead>
<tr>
<th>Municipality</th>
<th>Name</th>
<th>Area(^3) in km(^2)</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zabljak</td>
<td>Lake Crno</td>
<td>0.52</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Lake Zminicko</td>
<td>0.042</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Poscansko</td>
<td>0.015</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Modro</td>
<td>0.007</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Valovito</td>
<td>0.011</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Riblje</td>
<td>0.042</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Zmijnje</td>
<td>0.017</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Jablan</td>
<td>n.a.</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Skrcko</td>
<td>0.056</td>
<td>Natural</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Vrazje</td>
<td>0.118</td>
<td>Natural</td>
</tr>
<tr>
<td>Niksic</td>
<td>Lake Liverovicko</td>
<td>1.00</td>
<td>Artificial</td>
</tr>
<tr>
<td>Niksic</td>
<td>Lake Krupacko</td>
<td>5.70</td>
<td>Artificial</td>
</tr>
<tr>
<td>Niksic</td>
<td>Lake Slano</td>
<td>8.89</td>
<td>Artificial</td>
</tr>
<tr>
<td>Nisic</td>
<td>Vrtac</td>
<td>13.42</td>
<td>Artificial</td>
</tr>
<tr>
<td>Nisic</td>
<td>Lake Bilecko(^4)</td>
<td>5.4</td>
<td>Artificial</td>
</tr>
</tbody>
</table>

Source: Atlas of Montenegro, Vijesti, 2006

The most important artificial lake is Pivska, which was created by the construction of a large barrage on the Piva River. In Niksic, there are three artificial lakes Krupac, Slano and Liverovici.

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3 For many smaller lakes there is no available data. They are not economically significant but provide potential for tourism in the region.

4 Most of Lake Bileca is within the territory of BiH. The total area is 33 km\(^2\) of which 18% (20% of energetic potential and 42% of confluence) is with the territory of the Municipality of Niksic. Montenegro does not gain any economic benefits from the lake. Currently there are negotiations between EPCG and EPRS about concession charges for land usage. EPCG has brought in consultants to evaluate the lake's energy potential and to propose ways of using the water potential.
2. SPATIAL CHARACTERISTICS

There are eleven municipalities in the northern sub region, which are mainly rural type because small area is converted to urban plans. Slightly different situation is in Niksic and Bijelo Polje.

Table 2.1: The General and Detail Urban Plan coverage in the Northern region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Coverage of GUP and DUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Only centre of town</td>
</tr>
<tr>
<td>Berane</td>
<td>GUP = 1.9379% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 15.1% GUP</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>GUP = 1% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 50% GUP</td>
</tr>
<tr>
<td>Kolasin</td>
<td>GUP = 1.29% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 17.22% GUP</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>GUP = 2% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 30% GUP</td>
</tr>
<tr>
<td>Plav</td>
<td>DUP = 60% GUP</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>GUP = 1.30% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 45% GUP</td>
</tr>
<tr>
<td>Pluzine</td>
<td>GUP = 0.39% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 9.1% GUP</td>
</tr>
<tr>
<td>Rozaje</td>
<td>GUP = 2.30% SP</td>
</tr>
<tr>
<td>Savnik</td>
<td>No plan</td>
</tr>
<tr>
<td>Zabljak</td>
<td>GUP = 4.58% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 4.17% GUP</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>GUP = 1.66% PP</td>
</tr>
<tr>
<td></td>
<td>DUP = 20% GUP</td>
</tr>
<tr>
<td>Niksic</td>
<td>GUP = 2.72% SP</td>
</tr>
<tr>
<td></td>
<td>DUP = 8.39% GUP</td>
</tr>
</tbody>
</table>


Only a small part of each municipality is covered by the General Urban Plan and the Detail Urban Plan has covered an even smaller area. Savnik has neither a GUP nor a DUP.

2.1. WATER RESOURCES

The majority of rivers in the northern region are characterized by a strong downstream, which gives them potential to be sources of energy for new hydro plants while only small part of them have actually been used. With attractive landscapes alongside small mountain rivers, other rivers have potential for development in tourism.

The rivers with the greatest volume in the Northern region are the Moraca, Piva, Tara, Lim, Ibar, Cehotina and Zeta rivers.
Table 2.2: Water measure stations in the Northern region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>River</th>
<th>Station</th>
<th>Confluence area</th>
<th>Confluence volume</th>
<th>Confluence length</th>
<th>Flow length</th>
<th>Overall flows length</th>
<th>River network thickness</th>
<th>Average altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Lim</td>
<td>Andrijevica</td>
<td>680.6</td>
<td>171</td>
<td>54</td>
<td>60</td>
<td>605</td>
<td>0.89</td>
<td>1.521</td>
</tr>
<tr>
<td>Berane</td>
<td>Lim</td>
<td>Berane</td>
<td>1.28</td>
<td>214</td>
<td>71</td>
<td>79.6</td>
<td>1022</td>
<td>0.8</td>
<td>1.445</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Lim</td>
<td>Zaton</td>
<td>1.794</td>
<td>262</td>
<td>90</td>
<td>101</td>
<td>1298</td>
<td>0.72</td>
<td>1.336</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Lim</td>
<td>Bijelo Polje</td>
<td>2.183</td>
<td>292</td>
<td>98</td>
<td>110</td>
<td>1539</td>
<td>0.71</td>
<td>1.292</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Tara</td>
<td>Crna Poljana</td>
<td>247</td>
<td>79.8</td>
<td>20</td>
<td>26.9</td>
<td>301</td>
<td>1.22</td>
<td>1.466</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Tara</td>
<td>Trebaljevo</td>
<td>505.8</td>
<td>235</td>
<td>29</td>
<td>40</td>
<td>439</td>
<td>0.87</td>
<td>1.435</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Tara</td>
<td>Bistrica</td>
<td>780.1</td>
<td>163</td>
<td>55</td>
<td>68.6</td>
<td>610</td>
<td>0.78</td>
<td>1.396</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Plav</td>
<td>363.6</td>
<td>115</td>
<td>34</td>
<td>37.7</td>
<td>270</td>
<td>0.74</td>
<td>1.578</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Cehotina</td>
<td>Pljevlja</td>
<td>393.2</td>
<td>99</td>
<td>49</td>
<td>48</td>
<td>161</td>
<td>0.41</td>
<td>1.159</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Cehotina</td>
<td>Gradac</td>
<td>809.8</td>
<td>131</td>
<td>74</td>
<td>73</td>
<td>300</td>
<td>0.37</td>
<td>1.110</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Tara</td>
<td>Djurdjevića Tara</td>
<td>1.381</td>
<td>226</td>
<td>77</td>
<td>92.4</td>
<td>745</td>
<td>0.54</td>
<td>1.442</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Tara</td>
<td>Scepan Polje</td>
<td>2.040</td>
<td>308</td>
<td>128</td>
<td>146</td>
<td>913</td>
<td>0.45</td>
<td>1.412</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Piva</td>
<td>Scepan Polje</td>
<td>1.784</td>
<td>241</td>
<td>80</td>
<td>94.3</td>
<td>286</td>
<td>0.16</td>
<td>1.353</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Ibar</td>
<td>Rozaje</td>
<td>94.7</td>
<td>47.4</td>
<td>12</td>
<td>13.6</td>
<td>114</td>
<td>1.21</td>
<td>1.437</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Ibar</td>
<td>Bac</td>
<td>405.2</td>
<td>95.5</td>
<td>29</td>
<td>34.2</td>
<td>415</td>
<td>1.02</td>
<td>1.355</td>
</tr>
<tr>
<td>Savnik</td>
<td>Komarnica</td>
<td>Duski most</td>
<td>378.6</td>
<td>119</td>
<td>31</td>
<td>34.2</td>
<td>144</td>
<td>0.38</td>
<td>1.440</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>Zeta</td>
<td>Danilovgrad</td>
<td>1.216</td>
<td>184</td>
<td>68</td>
<td>58</td>
<td>110</td>
<td>0.09</td>
<td>937</td>
</tr>
<tr>
<td>Nikšić</td>
<td>Zeta</td>
<td>Duklov Most</td>
<td>342.2</td>
<td>88</td>
<td>28</td>
<td>12</td>
<td>27</td>
<td>0.08</td>
<td>1.168</td>
</tr>
</tbody>
</table>

Source: The Ministry of Agriculture, Forestry and Water Management (Water economy basis of Montenegro, 2001)

The table gives a description of energy potential of the main river flows. The distance of 5 km has been adopted to make estimates. When it comes to average potential we can conclude that the Tara is the most powerful river while Ibar has the least power for energy production.

Table 2.3: Energy potential by main flow<sup>5</sup>

<table>
<thead>
<tr>
<th>River</th>
<th>Power (MW)</th>
<th>Energy (GWh/god)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piva</td>
<td>155</td>
<td>1,361</td>
</tr>
<tr>
<td>Tara</td>
<td>257</td>
<td>2,255</td>
</tr>
<tr>
<td>Cehotina</td>
<td>53</td>
<td>463</td>
</tr>
<tr>
<td>Lim</td>
<td>164</td>
<td>1,438</td>
</tr>
<tr>
<td>Ibar</td>
<td>14</td>
<td>118</td>
</tr>
<tr>
<td>Zeta</td>
<td>168</td>
<td>1,469</td>
</tr>
<tr>
<td>Moraca</td>
<td>229</td>
<td>2,007</td>
</tr>
</tbody>
</table>

Source: The Ministry of Agriculture, Forestry and Water Management (Water economy basis of Montenegro, 2001)

<sup>5</sup> The strength of the flow is a product of potential and difference in altitude while energy is a product of the strength of the river and time, potential scale and slopes alongside flow (for certain stretches of river flow) combined with time provide an estimate for the scale of main energy and strength factors. To calculate the potential of the main river flows in Montenegro a distance of 5km was adopted.
Only two hydro plants, „Perucica“ on the Zeta river (with an installation power of 307 MW) and „Piva“ on the Piva river (with an installation power of 342 MW), have been built thus far. There are six smaller hydro plants (Glava Zete, Slap Zete, Savnik, Podgor, Lijeva Rijeka and Rijeka Musovica) whose total power amounts to 8 MW.

Artificial lakes have been built for the needs of the hydro plants; Piva Lake for hydro plants „Piva“ and the three lakes in Niksic for the needs of „Perucica“ hydro plant.

From the data in the table we can see that there is tremendous potential for energy production in the Northern region. Certain river flows have been identified in the Energy Development Strategy as potential sources for hydro plant development.

Table 2.4: Potential accumulation for hydro plant construction

<table>
<thead>
<tr>
<th>Municipality</th>
<th>River</th>
<th>Name of hydro plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>Lim</td>
<td>Berane</td>
</tr>
<tr>
<td>Berane</td>
<td>Lim</td>
<td>Poda</td>
</tr>
<tr>
<td>Berane</td>
<td>Lim</td>
<td>Gradjevica</td>
</tr>
<tr>
<td>Berane</td>
<td>Sekularska rijeka</td>
<td>Sekulari</td>
</tr>
<tr>
<td>Berane</td>
<td>Kaludarska rijeka</td>
<td>Kaludra</td>
</tr>
<tr>
<td>Berane</td>
<td>Ljesnica</td>
<td>Ljesnica</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Lim</td>
<td>Princici</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Bistrica</td>
<td>Bistrica</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Ljubovidja</td>
<td>Ljubovidja</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>Ljevista</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>Krusev Lug</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>Ljuta</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>Andrijevo</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Moraca</td>
<td>Raslovici</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Mrtvica</td>
<td>Velje Duboko</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Ibrishtica</td>
<td>Ibrisja</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Tara</td>
<td>Matesovo</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Stitaricka rijeka</td>
<td>n.a.</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Ravnjak</td>
<td>n.a.</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Bjelojevicka rijeka</td>
<td>n.a.</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Plav</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Rzanice</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Murino</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Mostine</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Jagnjilo</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Bukva</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Trešnjevo</td>
</tr>
<tr>
<td>Plav</td>
<td>Lim</td>
<td>Navotine</td>
</tr>
<tr>
<td>Plav</td>
<td>Grnacar</td>
<td>Grnacar</td>
</tr>
</tbody>
</table>

---

6 There are no data about hydro plants potential capacity. The Ministry of Economy announced the tender for some of the aforementioned water flows.
An important characteristic of the rivers of the northern region rivers is the cleanliness of the water. Thus far, six factories for the bottling of water resources bottling have been constructed.

Table 2.5: List of water factories in the Northern region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Type of water</th>
<th>Factory</th>
<th>Capacity (Litres per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bijelo Polje</td>
<td>Mineral</td>
<td>Rada</td>
<td>30,000,000^7</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Still</td>
<td>Aqua Bianca, Aqua Bianca doo</td>
<td>31,536,000</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Mineral and still</td>
<td>Aqua Monta, Fin Invest doo</td>
<td>50,000,000</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Still</td>
<td>Suza, Water Group doo</td>
<td>63,072,000</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Still</td>
<td>Gorska voda, Gorska doo</td>
<td>157,680,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Still</td>
<td>Gorska voda, Gorska doo</td>
<td>3,208,478</td>
</tr>
</tbody>
</table>

Source: The Ministry of Agriculture, Forestry and Water Management

The majority of water bottling factories are located in Kolasin.

Table 2.6: Planned water factories in the Northern region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Place</th>
<th>Capacity (Litres per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolasin</td>
<td>Javor</td>
<td>124,416,000</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Drijenak</td>
<td>72,000,000</td>
</tr>
<tr>
<td>Niksic</td>
<td>Sanik, Nudo</td>
<td>51,000,000</td>
</tr>
<tr>
<td>Niksic</td>
<td>Bukovik, Morakovo</td>
<td>60,000,000</td>
</tr>
<tr>
<td>Plav</td>
<td>Alipasini izvori</td>
<td>330,480,000</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Pasista</td>
<td>5,280,000</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Lucicko vrelo</td>
<td>52,000,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Gusarevci</td>
<td>19,200,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Zmajevac</td>
<td>19,200,000</td>
</tr>
</tbody>
</table>

^7 Source: Bjelasica Rada INC
SOCIO ECONOMIC ANALYSIS OF THE NORTHERN REGION OF MONTENEGRO

Source: The Ministry of Agriculture, Forestry and Water Management
With its tremendous potential, there are plans for nine new water factories in the remaining six northern municipalities.

2.2. LAND

As a mountainous region there is a lack of little fertile land in the Northern region. The total area used for agriculture is 3,832.46 km² or 39.18% of the Northern region. Montenegrin Polimlje and Pljevlja's basin have more arable land and a more favorable climate for the production of wheat and fruit such as corn, wheat, potatoes, beans, cabbage, apples, pears and plums.

The most important agricultural products of the plains region (Danilovgrad) are wine, figs, peaches, vegetables and corn. The Catun karst and Rudin-Banjan area (Niksic) also produces potatoes, cabbage, beans and corn. The smaller farms, highly mountainous areas mostly produce barley, oats, potatoes and cabbage.

In terms of vegetation, the Northern regions’ territory is part of the continental or plant-geographic region. Forests cover 46.92% of the total area in the Northern region, amounting to 4,590.22 km².

Table 2.7: Municipal area by usage, km²

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Agriculture</th>
<th>Forest</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Cultivated land</td>
<td>Forests</td>
<td>Arable land</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>116.36</td>
<td>56.47</td>
<td>150.58</td>
<td>20.84</td>
</tr>
<tr>
<td>Berane</td>
<td>293.21</td>
<td>157.43</td>
<td>331.67</td>
<td>20.16</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>403.8</td>
<td>239.51</td>
<td>474.40</td>
<td>23.87</td>
</tr>
<tr>
<td>Kolasin</td>
<td>278.44</td>
<td>91.49</td>
<td>539.20</td>
<td>54.79</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>136.86</td>
<td>46.96</td>
<td>180.05</td>
<td>37.73</td>
</tr>
<tr>
<td>Plav</td>
<td>247.35</td>
<td>81.77</td>
<td>200.46</td>
<td>32.76</td>
</tr>
<tr>
<td>Pluzine</td>
<td>197.3</td>
<td>72.97</td>
<td>369.76</td>
<td>72.42</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>691.44</td>
<td>282.73</td>
<td>610.98</td>
<td>158.65</td>
</tr>
<tr>
<td>Rozaje</td>
<td>202.37</td>
<td>94.34</td>
<td>210.66</td>
<td>55.11</td>
</tr>
<tr>
<td>Savnik</td>
<td>321.65</td>
<td>70.93</td>
<td>108.9</td>
<td>27.43</td>
</tr>
<tr>
<td>Zabljak</td>
<td>220.21</td>
<td>63.61</td>
<td>130.24</td>
<td>80.9</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>178.37</td>
<td>81.68</td>
<td>301.16</td>
<td>22.46</td>
</tr>
<tr>
<td>Niksic</td>
<td>545.1</td>
<td>127.27</td>
<td>982.16</td>
<td>126.78</td>
</tr>
</tbody>
</table>

Source: Spatial Plan of Montenegro, 2006

The total area used for agriculture in the Northern region amounts to 3,832.46 km². Pljevlja has the largest share (with 691.44 km²) while Andrijevica has the smallest (with 116.36 km²). The largest total area of cultivated land is in Pljevlja with 282.73 km², while the smallest is in Mojkovac with 46.96 km². The most forested area is Pljevlja with 610.98 km² while the least is Savnik with 108.9 km².

The total forest area in Niksic is 982.16 km² while in Danilovgrad it is 30.16 km². Compared to other municipalities, Niksic has the largest land area covered by settlements, roads, rocky terrains, rivers and lakes (537.74 km²).

Savnik has largest share of agriculture land as total municipality area (with 58.16%) while Pluzine has the smallest share (with 23.1%). Kolasin has the highest share of forestland as total area in the municipality (60.11%).
Many forests in Danilovgrad and Niksic have little deciduous trees. Among the deciduous trees the most important kinds include oak, which has many species, beam and hornbeam. With its large forests and pastures, the mountain-valley region is particularly rich in flora.

In most of continental Montenegro, the types of forests differ according to bioclimatic, i.e. altitude, changes. Oak forests cover the lowest areas, including the Lim, Cehotina, Piva and Tare valleys and basins. In the warmer parts of the mountainous areas, which are mainly in the south, there are narrow beech forests mixed with oak, and even hornbeam. Mixed beech and fir forests are located at an altitude between 300 and 400 m, but because of the sharp relief, they do not cover large areas. The altitude limits the presence of juniper. In certain places the forests are mostly made up of shrubbery.

Table 2.8: Share of agricultural land and forest in total municipal area (%)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Agricultural land</th>
<th>Forest</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>41.12</td>
<td>53.21</td>
<td>5.67</td>
</tr>
<tr>
<td>Berane</td>
<td>40.89</td>
<td>46.26</td>
<td>12.85</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>43.7</td>
<td>51.34</td>
<td>4.96</td>
</tr>
<tr>
<td>Kolasin</td>
<td>31.04</td>
<td>60.11</td>
<td>8.85</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>37.29</td>
<td>49.06</td>
<td>13.65</td>
</tr>
<tr>
<td>Plav</td>
<td>50.9</td>
<td>41.25</td>
<td>7.86</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>51.37</td>
<td>45.39</td>
<td>3.24</td>
</tr>
<tr>
<td>Pluzine</td>
<td>23.1</td>
<td>43.3</td>
<td>33.60</td>
</tr>
<tr>
<td>Rozaje</td>
<td>46.84</td>
<td>48.76</td>
<td>4.39</td>
</tr>
<tr>
<td>Savnik</td>
<td>58.16</td>
<td>19.69</td>
<td>22.14</td>
</tr>
<tr>
<td>Zabljak</td>
<td>49.49</td>
<td>29.27</td>
<td>21.25</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>35.6</td>
<td>60.11</td>
<td>4.29</td>
</tr>
<tr>
<td>Niksic</td>
<td>26.4</td>
<td>47.56</td>
<td>26.04</td>
</tr>
</tbody>
</table>

Source: Spatial Plan of Montenegro, 2006

2.3. MINERALS

The northern region is very rich in minerals and ores. The most important raw mineral in Montenegro is coal. The estimated reserves of micro lignite in Pljevlja total 230 million t. It is extracted with the “skin-deep” process for Thermo Powerhouse «Pljevlja» needs and wider consumption and brown coal in Berane which are produced by subterranean manner for industry’s need and also for wider consumption.

Red bauxite is the most important raw metal for both the region and all of Montenegro. More than 90 bearings and emersions have been discovered. Production is conducted with the “skin-deep” or subterranean processes in the following bearings: Zagrad, Djurakov do, Biocki Stan, Stitovo, Borovnik i Borova hills, which are in Niksic. This material is being used for the needs of the aluminum plant Podgorica.

Lead and zinc resources were found in fifteen bearings and emersions in the region of Ljubisnja and in six emplacements in the region of Bjelasice. There is production in two mines in Pljevlja and Mojkovac. There is also mercury in Pljevlja, Mojkovac and Savnik, but has no economic significance.
Table 2.9: Mineral resources bearings in northern Montenegro

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Basin</th>
<th>Mineral</th>
<th>Exploitation (in t)</th>
<th>Bearings-reserves (in t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>Budimlja</td>
<td>Dark coal</td>
<td>1,620,000</td>
<td>158,000,000</td>
</tr>
<tr>
<td>Berane</td>
<td>Petnik</td>
<td>Dark coal</td>
<td>918,888</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>Zagorje</td>
<td>Dark coal</td>
<td>No exploitation</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>Policki</td>
<td>Dark coal</td>
<td>No exploitation</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>Berane</td>
<td>Dark coal</td>
<td>No exploitation 8</td>
<td>n.a.</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Brskovo</td>
<td>Mercury</td>
<td>No exploitation</td>
<td>4,600</td>
</tr>
<tr>
<td>Mojkovac, Pljevlja</td>
<td>Brskovo i Suplja stijena</td>
<td>Lead and zinc</td>
<td>No exploitation</td>
<td>52,015,000</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Varine</td>
<td>Cooper</td>
<td>No exploitation</td>
<td>5,297,000</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Potkovac</td>
<td>Dark lignite</td>
<td>50,000,000</td>
<td>232,544,000</td>
</tr>
<tr>
<td>Šavnik</td>
<td>Krnja jela</td>
<td>Mercury</td>
<td>No exploitation</td>
<td>130</td>
</tr>
<tr>
<td>Nikšić</td>
<td>Zagrad, Djurakov do, Biocki stan, Stitovo, Borovnik and Borova hills</td>
<td>Red bauxite</td>
<td>24,518,695</td>
<td>96,244,000</td>
</tr>
</tbody>
</table>

Source: Spatial plan of Republic of Montenegro, 2006

Among the non-metal resources of the region there is decorative stone, technical-construction stone, cobble and grit, brick lignite, cement, white bauxite and barite.

Table 2.10: Non metal bearings

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Basin</th>
<th>Minerals</th>
<th>Emplacement (Reserve in m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Lime rock, marble, vulcanite</td>
<td>2,000,000</td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>Decorative stone</td>
<td>2,000,000</td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>Cobble and sand</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Pluzine</td>
<td>Cobble and sand</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Podkovac</td>
<td>Barite</td>
<td>344,850</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Cehotina</td>
<td>Cement</td>
<td>121,300,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Plakola</td>
<td>Bentonit</td>
<td>755,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Tavani</td>
<td>Rock mass</td>
<td>275,000</td>
</tr>
<tr>
<td>Savnik</td>
<td>Tavani</td>
<td>Blocs</td>
<td>116,000</td>
</tr>
<tr>
<td>Savnik</td>
<td></td>
<td>Cobble and grit</td>
<td>n.a.</td>
</tr>
<tr>
<td>Zabljak</td>
<td></td>
<td>Cobble and grit</td>
<td>n.a.</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>Bjelopavlici</td>
<td>Cement</td>
<td>30,000,000</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>Bjelopavlici</td>
<td>Decorative stone</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Niksic</td>
<td>Lipova ravan</td>
<td>Lime rock, marble, vulcanite</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Niksic</td>
<td></td>
<td>Cobble and grit</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Source: Spatial Plan of Montenegro, 2006

There is one thermal water bearing in Montenegro, which is located in Pluzine, under the artificial Lake Piva. In the Pljevlja basin there are also several hundreds of brick alumina reserves.

---

8 Berane bearing is mainly underneath Municipality of Berane, Lim river and airport and that is why his reserves have been classified as perspective reserves.
2.4. CLIMATE

The climate of the Northern region is greatly varied throughout. It is determined by the geographical position of the North Pole, proximity to the Adriatic Sea, basins and plains, high mountains intersected by rivers, valleys and canyons.

The northern and northeastern areas are affected by the high relief. They have the attributes of continental and mountain climates (Bijelo Polje, Berane, Rozaje, and Plav). The continental climate is more pronounced in northwestern areas. Its main characteristic is limited, but varied rainfall (Pljevlja).

The climate in Niksic is sub-Mediterranean but is strongly affected by the continental climate reporting lower temperatures during winter and greater annual temperature amplitudes. Danilovgrad has a Mediterranean climate with high average annual temperature.

Table 2.11: Meteorological data for the Northern region by municipality

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Absolute minimal temperatures in °C</th>
<th>Average minimal temperatures in °C</th>
<th>Absolute maximum temperatures in °C</th>
<th>Average maximum temperatures in °C</th>
<th>Average annual temperatures in °C</th>
<th>Average annual rainfall (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>-23.8 n.a.</td>
<td>38.6 n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Berane</td>
<td>-28.3 3.3</td>
<td>40.4 15.8</td>
<td>9.1</td>
<td>925</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>-27.6 3.7</td>
<td>39.8 15.7</td>
<td>9</td>
<td>907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>-29.8 2.1</td>
<td>36.6 13.6</td>
<td>7.2</td>
<td>2,076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mojkovac</td>
<td>-21.1 4.9</td>
<td>38.3 15.2</td>
<td>9.6</td>
<td>1,586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plav</td>
<td>-29.8 2.4</td>
<td>36.3 14.4</td>
<td>8</td>
<td>1,037</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pljevlja</td>
<td>-29.4 2.9</td>
<td>38.7 14.8</td>
<td>8.4</td>
<td>771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pluzine</td>
<td>-20.1 5.0</td>
<td>39 15.8</td>
<td>10.1</td>
<td>1,392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rozaje</td>
<td>-32 0.7</td>
<td>36.5 13.6</td>
<td>6.5</td>
<td>901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savnik</td>
<td>-24.3 3.7</td>
<td>37.5 16.2</td>
<td>9.6</td>
<td>1,702</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zabljak</td>
<td>-26.4 0.3</td>
<td>32.4 10.2</td>
<td>4.9</td>
<td>1,462</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>-14.6 8.7</td>
<td>42.8 20.5</td>
<td>14.5</td>
<td>2,215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Niksic</td>
<td>-20.2 6.1</td>
<td>40.8 16.2</td>
<td>10.9</td>
<td>1,918</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Weather bureau of Montenegro

The lowest absolute minimal temperatures were measured in Plav and Kolasin (-29.8 °C) while the highest absolute temperature was measured in Danilovgrad (42.8° C).

The average January temperatures for all the municipalities are below 0° C while in river basins and valleys they are between -1 and -3 °C. In high mountainous areas they are below -4 °C. Summers are breezy. Average July temperatures in mountainous area are between 16 and 19 °C while in river basins and valleys and in high mountains they are between 10 and 12 °C. Very warm days (when the maximum daily temperature is above 30 °C) are very rare. There are up to thirty days when the temperature is above 25 °C while in basins and valleys there are more (in Bjelopavlici there are more than sixty).

In Niksic and Danilovgrad the average temperature is higher than in other municipalities in the region. During summer, the lower parts of Bjelopavlici are the hottest areas in Montenegro. In Danilovgrad the average July temperature is above 250 C while in Niksic it is about 20 °C. The average winter temperature is about 4 °C in Danilovgrad and between 0 and 2 °C in Niksic.

There are between thirty and fifty cold days (when the maximum temperature is below 0 °C) in basins...
and valleys while in high mountainous areas there are more. In Bjelopavlici there are less than 5 days while in Niksic there is less than 20.

There is significant rainfall in the northern region. In general, volume of rainfall is above 1000 of mm per year, with the exception of Cehotina and part of the Montenegrin Polimlje around Bijelo Polje and Berane where average annual rainfall is 700-1000 mm.
3. POPULATIONS AND DEMOGRAPHY

3.1. BASIC POPULATION CHARACTERISTICS

According to a 2003 survey, Montenegro has a total of 620,145 inhabitants. 198,897 or 32.1% of the total population lives in the northern sub region. According to the survey, 290,684 persons or 46.9% of the population live in the northern region.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>...</td>
<td>6,696</td>
<td>5,785</td>
<td>-</td>
<td>-911</td>
<td>-13.6</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>47,893</td>
<td>38,953</td>
<td>35,068</td>
<td>-</td>
<td>-3,885</td>
<td>-10</td>
<td></td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>54,625</td>
<td>55,268</td>
<td>50,284</td>
<td>643</td>
<td>1.2</td>
<td>-4,984</td>
<td>-9</td>
</tr>
<tr>
<td>Kolasin</td>
<td>12,382</td>
<td>11,12</td>
<td>9,949</td>
<td>-1,262</td>
<td>-10.2</td>
<td>-1,171</td>
<td>-10.5</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>10,636</td>
<td>10,83</td>
<td>10,066</td>
<td>194</td>
<td>1.8</td>
<td>-764</td>
<td>-7.1</td>
</tr>
<tr>
<td>Plav</td>
<td>17,319</td>
<td>19,305</td>
<td>13,805</td>
<td>1,986</td>
<td>11.5</td>
<td>-5,500</td>
<td>-28.5</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>42,643</td>
<td>39,593</td>
<td>39,066</td>
<td>-3,050</td>
<td>-7.2</td>
<td>213</td>
<td>0.5</td>
</tr>
<tr>
<td>Pluzine</td>
<td>6,216</td>
<td>5,247</td>
<td>4,272</td>
<td>-969</td>
<td>-15.6</td>
<td>-975</td>
<td>-18.6</td>
</tr>
<tr>
<td>Rozaje</td>
<td>1,9753</td>
<td>22,976</td>
<td>22,693</td>
<td>3,223</td>
<td>16.3</td>
<td>-283</td>
<td>-1.2</td>
</tr>
<tr>
<td>Savnik</td>
<td>5,470</td>
<td>3,690</td>
<td>2,947</td>
<td>-1,780</td>
<td>-32.5</td>
<td>-743</td>
<td>-20.1</td>
</tr>
<tr>
<td>Zabljak</td>
<td>5,187</td>
<td>4,914</td>
<td>4,204</td>
<td>-723</td>
<td>-5.3</td>
<td>-710</td>
<td>-14.4</td>
</tr>
<tr>
<td><strong>Total north sub-region</strong></td>
<td><strong>204,346</strong></td>
<td><strong>218,592</strong></td>
<td><strong>198,879</strong></td>
<td><strong>-3,535</strong></td>
<td><strong>7.0</strong></td>
<td><strong>-19,713</strong></td>
<td><strong>-9.0</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>14,517</td>
<td>14,718</td>
<td>16,523</td>
<td>201</td>
<td>1.4</td>
<td>1,805</td>
<td>12.3</td>
</tr>
<tr>
<td>Niksic</td>
<td>71,571</td>
<td>74,706</td>
<td>75,282</td>
<td>3,135</td>
<td>4.4</td>
<td>576</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total north region</strong></td>
<td><strong>290,434</strong></td>
<td><strong>308,016</strong></td>
<td><strong>290,684</strong></td>
<td><strong>2.048</strong></td>
<td><strong>6.1</strong></td>
<td><strong>-17,332</strong></td>
<td><strong>-5.6</strong></td>
</tr>
</tbody>
</table>

Source: Statistical Yearbook 2006, MONSTAT

Since the 1980s, the northern sub region has registered a decreased number of inhabitants. In the period from 1981 to 2003, the share of inhabitants in the northern region in total number of inhabitants has decreased by 6%, or from 38.0% to 32.1%.

According to the 2003 survey, the largest number of inhabitants in the northern sub-region was in the municipality of Bijelo Polje in the 55,286, or 25.3% of the total number of inhabitants in the northern sub region. The lowest number of inhabitants is in the municipality of Savnik, which has 2,947 inhabitants representing or only 1.5% of the total number of inhabitants in the northern sub region.

The municipalities of Niksic and Danilovgrad have registered growth in the number of inhabitants although population growth is lagging in the municipality of Niksic. In 2003 the number of inhabitants was only 0.8% higher compared to 1991.

From the total number of inhabitants in the northern region, 50.3% are women and 49.7% are men. From the total number of inhabitants in 2003, 20.99% of inhabitants belong to the group between 0-15 years, 65.53% of inhabitants belong to the group between 16-65 years, or the working age population, while 15.59% of the population is older than 65 years.

The population structure by sex differs substantially between age groups, both in the region and sub region. There are more males than females in the age group from 0 to 15 years, namely 51.3% males.
age group 15 to 64 years, the proportion of males is still higher, with a share of 50.2%. In the population older than 65, women dominate with 57.7% of the total population. Among the group of people with an unknown age, females are dominant with share of 56.1% of the total number.

Table 3.2: Population per gender and old structure (2003)

<table>
<thead>
<tr>
<th>municipality</th>
<th>Males</th>
<th>0-9</th>
<th>10-14</th>
<th>15-64</th>
<th>65+</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>354</td>
<td>205</td>
<td>1,959</td>
<td>369</td>
<td>54</td>
<td>2,941</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>2,622</td>
<td>1,407</td>
<td>11,538</td>
<td>1,850</td>
<td>128</td>
<td>17,545</td>
<td></td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>3,716</td>
<td>2,018</td>
<td>16,827</td>
<td>2,334</td>
<td>332</td>
<td>25,227</td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>567</td>
<td>356</td>
<td>3,384</td>
<td>639</td>
<td>37</td>
<td>4,983</td>
<td></td>
</tr>
<tr>
<td>Mojkovac</td>
<td>676</td>
<td>370</td>
<td>3,463</td>
<td>506</td>
<td>29</td>
<td>5,044</td>
<td></td>
</tr>
<tr>
<td>Plav</td>
<td>1,147</td>
<td>637</td>
<td>4,246</td>
<td>767</td>
<td>24</td>
<td>6,821</td>
<td></td>
</tr>
<tr>
<td>Pljevlja</td>
<td>1,922</td>
<td>1,143</td>
<td>11,957</td>
<td>2,368</td>
<td>24</td>
<td>17,414</td>
<td></td>
</tr>
<tr>
<td>Pluzine</td>
<td>218</td>
<td>125</td>
<td>1,483</td>
<td>310</td>
<td>1</td>
<td>2,137</td>
<td></td>
</tr>
<tr>
<td>Rozaje</td>
<td>2,096</td>
<td>1,175</td>
<td>7,120</td>
<td>755</td>
<td>136</td>
<td>11,282</td>
<td></td>
</tr>
<tr>
<td>Savnik</td>
<td>135</td>
<td>103</td>
<td>985</td>
<td>214</td>
<td>25</td>
<td>1,62</td>
<td></td>
</tr>
<tr>
<td>Zabljak</td>
<td>206</td>
<td>148</td>
<td>1,432</td>
<td>271</td>
<td>9</td>
<td>2,066</td>
<td></td>
</tr>
<tr>
<td>Total northern sub region</td>
<td>26,628</td>
<td>15,069</td>
<td>126,930</td>
<td>24,379</td>
<td>1,873</td>
<td>194,879</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>municipality</th>
<th>Males</th>
<th>0-9</th>
<th>10-14</th>
<th>15-64</th>
<th>65+</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danilovgrad</td>
<td>1,097</td>
<td>672</td>
<td>5,444</td>
<td>962</td>
<td>65</td>
<td>8,240</td>
<td></td>
</tr>
<tr>
<td>Niksic</td>
<td>5,114</td>
<td>2,652</td>
<td>25,217</td>
<td>3,921</td>
<td>265</td>
<td>37,169</td>
<td></td>
</tr>
<tr>
<td>Total northern region</td>
<td>38,687</td>
<td>21,476</td>
<td>187,864</td>
<td>36,085</td>
<td>2,572</td>
<td>286,684</td>
<td></td>
</tr>
</tbody>
</table>

Source: MONSTAT, Survey Book 2, 2004

According to the 2003 survey, 140,802 lived in an urban area of the northern region, i.e. 49.1% of the total population while 50.9% of the population, or 145,882 people, lived in a rural area of the region. The total number of households in the northern region was 78,265 while the average number of household members was 3.7.

The biggest families are in the municipality of Rozaje, with an average of 5.3 members, while the smallest are found in the municipality of Andrijevica, with an average of 3.1 members. According to size, the municipality of Niksic has the greatest number of households with 19,400, while Savnik has the smallest number of households with 1,062.
Table 3.3: Number of settlements, households and average family size in 2003

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Settlement</th>
<th>Households</th>
<th>Average size of family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>24</td>
<td>2,017</td>
<td>3.1</td>
</tr>
<tr>
<td>Berane</td>
<td>66</td>
<td>9,458</td>
<td>4.1</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>98</td>
<td>13,233</td>
<td>4.2</td>
</tr>
<tr>
<td>Kolasin</td>
<td>67</td>
<td>3,283</td>
<td>3.4</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>13</td>
<td>2,824</td>
<td>3.8</td>
</tr>
<tr>
<td>Plav</td>
<td>23</td>
<td>3,847</td>
<td>5.0</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>158</td>
<td>11,431</td>
<td>3.5</td>
</tr>
<tr>
<td>Pluzine</td>
<td>43</td>
<td>1,530</td>
<td>3.4</td>
</tr>
<tr>
<td>Rožaje</td>
<td>26</td>
<td>4,340</td>
<td>5.3</td>
</tr>
<tr>
<td>Savnik</td>
<td>27</td>
<td>1,062</td>
<td>3.5</td>
</tr>
<tr>
<td>Zabljak</td>
<td>28</td>
<td>1,461</td>
<td>3.4</td>
</tr>
<tr>
<td>Northern sub region</td>
<td>573</td>
<td>78,265</td>
<td>3.8</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>80</td>
<td>4,379</td>
<td>3.4</td>
</tr>
<tr>
<td>Niksic</td>
<td>110</td>
<td>19,400</td>
<td>3.9</td>
</tr>
<tr>
<td>Northern region</td>
<td>763</td>
<td>102,044</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Source: MONSTAT, Survey, Book 1, 2004

Out of the total population, 36.53% is Serbian, 35.49% is Montenegrin, 15.52% is Bosnia, 5.67% is Muslim and 1.34% is Albanian.

Table 3.4: Structure of population per ethnic groups

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Northern sub region</th>
<th>Northern region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montenegrins</td>
<td>52.9%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Serbs</td>
<td>9.2%</td>
<td>41.2%</td>
</tr>
<tr>
<td>Bosnia</td>
<td>0.0%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Muslims</td>
<td>33.4%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1.3%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Albanians</td>
<td>2.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Croatians</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Others</td>
<td>0.8%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


The ethnic structure of the population in the northern region changed between 1991 and 2003. From the total number of people in northern sub region in 1991, Montenegrins had share of 52.9% while in 2003 they had share of 22.3%; Serbs had share of 9.2% in 1991 and in 2003 their share was 41.2%. In the 1991 survey, Bosnia as ethnic group did not exists but in 2003 their share became 22.8% of the population. In 1991 Muslims had a share of 33.4% and in 2003 their share was 5.7%. This change can be attributed to ethnic change of Muslims into Bosnia. The share of Montenegrins in the northern region fell from 63.2% to 35.5% while the share of Serbs increased from the 8.2% to 36.5% from the 1991 survey until 2003.


4. HUMAN RESOURCES AND LABOR MARKET

4.1. ACTIVITY

Labor Force Survey, implemented in July 2007 by the Institute for Strategic Studies and Projections for the needs of Employment Agency of Montenegro has shown that activity rate\(^9\) of population between age of 15 and 64 in northern sub region is 54.6% in July 2007. If we observe northern region in total, activity rate of working age population (population between age of 15 and 64) is a bit lower 53.1% due to lower activity rate in Niksic municipality. In the same period activity rate in Montenegro was 59.2%.

Graph 4.1: Activity rate of population between age of 15 and 64 according the regions (2007)

According to the fact that between population older than 65 there are certain individuals who are active (they work or they are looking for the job) in labor market situations’ description has also been used activity rate of population older than 15. In northern sub region 49.2% of population older than 15 is active (working or looking for the job) while activity rate of population older than 15 in whole Montenegro is 52.5%.

Graph 4.2: Activity rate of population older than 15 according the regions (2007)

As we can conclude, if we observe activity rates of population over 15 regional differences are lower than in case of population between age of 15 and 64. However, in both cases activity rate is highest in the southern sub region and lowest in the northern sub region.

\(^9\) Activity rate represents share of population that is working or is looking for the job in total population older than 15 or in working age population defined as population between age of 15 and 64.
If we analyze activity rates of population according the municipalities of northern region, the highest activity rate is registered in Andrijevica (69.3%), while the lowest activity rate is registered in Savnik (43.0%). Activity rate in Niksic is relatively low (48.1%) as well as in Plav (48.3%).

Table 4.1: Activity rates of population between age of 15 and 64 according the municipalities (2007)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Activity rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>69.30%</td>
</tr>
<tr>
<td>Berane</td>
<td>54.90%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>52.80%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>59.00%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>55.20%</td>
</tr>
<tr>
<td>Plav</td>
<td>48.30%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>66.50%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>51.70%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>59.90%</td>
</tr>
<tr>
<td>Savnik</td>
<td>43.00%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>57.20%</td>
</tr>
<tr>
<td><strong>Average Northern sub region</strong></td>
<td><strong>54.6%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>53.00%</td>
</tr>
<tr>
<td>Niksic</td>
<td>48.10%</td>
</tr>
<tr>
<td><strong>Average Northern region</strong></td>
<td><strong>53.1%</strong></td>
</tr>
</tbody>
</table>

*Source: ISSP/Employment Agency of Montenegro, Labor Force Survey 2007*

Analysis of activity rate of population older than 15 shows that activity rate in Montenegro in general is 62.10% for males and 42.90 for females. Activity rate in northern region is 40.8% for females and 65.4% for males while in northern sub region activity rates for males and females are lower and amounts 60.5% and 38.1%, respectively.

Graph 4.3: Activity rate of population older than 15 according the gender (2007)

The structure of active population in northern sub region according the ages shows that share of young persons (between age of 15 and 24) in total active population is 11.4% while share of persons older than 45 is 37.0%. The average age of active population in northern region is 40.

Table 4.2: Structure of active population in northern sub region according to age (2007)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 15 to 19</td>
<td>1.8</td>
</tr>
<tr>
<td>From 20 to 24</td>
<td>9.6</td>
</tr>
</tbody>
</table>
In educational structure of northern sub region active population dominant share similar as in the rest of Montenegro belongs to persons who have finished high school (the third and fourth degree) and theirs share is 60.7% of total active population. Share of persons without formal education or persons with unfinished primary education is 1.5% of total active population. Share of persons with college (2 years) and university level of education is almost 24.8% of total active population in northern sub region.

Table 4.3: Structure of active population according the level of education (2007)

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Northern region</th>
<th>Northern sub region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without education</td>
<td>0.25</td>
<td>0.57</td>
</tr>
<tr>
<td>Unfinished primary school</td>
<td>0.35</td>
<td>0.92</td>
</tr>
<tr>
<td>Primary school</td>
<td>9.03</td>
<td>11.62</td>
</tr>
<tr>
<td>Primary school and additional qualification 6 months II degree</td>
<td>1.51</td>
<td>1.37</td>
</tr>
<tr>
<td>High school - 3 years</td>
<td>25.11</td>
<td>24.04</td>
</tr>
<tr>
<td>High school - 4 years</td>
<td>38.09</td>
<td>33.79</td>
</tr>
<tr>
<td>Specialization based on high school – high qualified worker</td>
<td>2.72</td>
<td>2.84</td>
</tr>
<tr>
<td>College</td>
<td>9.78</td>
<td>10.77</td>
</tr>
<tr>
<td>Faculty</td>
<td>12.71</td>
<td>13.41</td>
</tr>
<tr>
<td>Postgraduate studies</td>
<td>0.37</td>
<td>0.52</td>
</tr>
<tr>
<td>PhD</td>
<td>0.09</td>
<td>0.12</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Share of active population with primary education is 10.5% while share of unqualified members of labor force in northern sub region amounts 11.1% of total labor force.

If we observe the northern region, situation is quit different and due to influence of municipalities of Niksic and Danilovgrad educational structure is quit different and it is characterized by lower share of persons with college and university education as well as lower share of persons who are without formal education.

4.2. EMPLOYMENT

Employment rate in northern sub region i.e. share of employees in total working age population (population between age of 15 and 64) is 51.7% in 2007. In the same period, employment rate in northern region amounted 47.2% which was consequence of relatively low employment rate in Niksic municipality. Total number of employed persons in northern sub region is 62,439, while total number of employed persons
in northern region is 92,034 or 28.6% and 42.1% of total number of employed persons in Montenegro, respectively.

Table 4.4: Total number of employed persons and employment rate according the municipalities (2007)

<table>
<thead>
<tr>
<th>municipalities</th>
<th>Total number of employed persons</th>
<th>Employment rate (15-64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>1,825</td>
<td>64.5</td>
</tr>
<tr>
<td>Berane</td>
<td>11,297</td>
<td>38.6</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>16,143</td>
<td>41.9</td>
</tr>
<tr>
<td>Kolasin</td>
<td>3,128</td>
<td>42.2</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>3,193</td>
<td>46.4</td>
</tr>
<tr>
<td>Plav</td>
<td>4,453</td>
<td>46.2</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>11,368</td>
<td>44.8</td>
</tr>
<tr>
<td>Pluzine</td>
<td>1,341</td>
<td>62.7</td>
</tr>
<tr>
<td>Rozaje</td>
<td>7,446</td>
<td>47.6</td>
</tr>
<tr>
<td>Savnik</td>
<td>915</td>
<td>35.0</td>
</tr>
<tr>
<td>Zabljak</td>
<td>1,330</td>
<td>55.2</td>
</tr>
<tr>
<td><strong>Total Northern sub region</strong></td>
<td><strong>62,439</strong></td>
<td><strong>51.7</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>5,310</td>
<td>41.7</td>
</tr>
<tr>
<td>Niksic</td>
<td>24,285</td>
<td>39.6</td>
</tr>
<tr>
<td><strong>Total Northern region</strong></td>
<td><strong>92,034</strong></td>
<td><strong>47.2</strong></td>
</tr>
</tbody>
</table>


The lowest employment rate in northern region is registered in Savnik and Niksic municipalities (35.0% and 39.6%, respectively) while the highest employment rate is registered in Andrijevica.

Graph 4.4: Employment rate according the gender (2007)

Share of women in total number of employees in northern sub region is 39.7% while in Montenegro in general share of women in employment is 41.8.

According the age groups share of young employees (between age of 15 and 24) is 9% of total employees in northern sub region while share of employees older than 55 is 13.7%.

Table 4.5: Structure of employees according the age groups (2007)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Northern region in %</th>
<th>Northern sub region</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 15 to 19</td>
<td>1.55</td>
<td>1.58</td>
</tr>
<tr>
<td>From 20 to 24</td>
<td>7.31</td>
<td>7.39</td>
</tr>
<tr>
<td>Age groups</td>
<td>Northern region in %</td>
<td>Northern sub region</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>From 25 to 29</td>
<td>11.59</td>
<td>12.19</td>
</tr>
<tr>
<td>From 30 to 34</td>
<td>12.99</td>
<td>12.84</td>
</tr>
<tr>
<td>From 35 to 39</td>
<td>13.04</td>
<td>12.58</td>
</tr>
<tr>
<td>From 40 to 44</td>
<td>13.78</td>
<td>13.30</td>
</tr>
<tr>
<td>From 45 to 49</td>
<td>13.02</td>
<td>12.61</td>
</tr>
<tr>
<td>From 50 to 54</td>
<td>13.92</td>
<td>13.81</td>
</tr>
<tr>
<td>From 55 to 59</td>
<td>9.39</td>
<td>9.92</td>
</tr>
<tr>
<td>From 60 to 64</td>
<td>3.41</td>
<td>3.78</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Source: ISSP/Employment Agency of Montenegro, Labor Force Survey 2007*

Educational structure of employed persons indicates that the highest share belongs to persons with finished high school while share of persons with college and university education is close to 30% (29.3%) which indicates that persons with only primary education have fewer chances in job finding.

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Northern region</th>
<th>Northern sub region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without education</td>
<td>0.33</td>
<td>0.44</td>
</tr>
<tr>
<td>Unfinished primary school</td>
<td>0.48</td>
<td>0.46</td>
</tr>
<tr>
<td>Primary school</td>
<td>7.78</td>
<td>9.04</td>
</tr>
<tr>
<td>Primary school and additional qualification 6 months II degree</td>
<td>1.69</td>
<td>1.60</td>
</tr>
<tr>
<td>High school - 3 years</td>
<td>22.48</td>
<td>23.29</td>
</tr>
<tr>
<td>High school - 4 years</td>
<td>37.99</td>
<td>35.04</td>
</tr>
<tr>
<td>Specialization based on high school – high qualified worker</td>
<td>2.97</td>
<td>3.18</td>
</tr>
<tr>
<td>College</td>
<td>10.97</td>
<td>11.51</td>
</tr>
<tr>
<td>Faculty</td>
<td>14.83</td>
<td>14.79</td>
</tr>
<tr>
<td>Postgraduate studies</td>
<td>0.37</td>
<td>0.49</td>
</tr>
<tr>
<td>PhD</td>
<td>0.12</td>
<td>0.16</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Sources: MONSTAT; Ministry of Finance, ISSP projections*

According the sectors, services sector has the highest share in total employment of northern sub region and it takes 69.4% share. Public services (administration, education and health services) takes 26.5% share in total employment in northern sub region while commercial services (trade, tourism, transportation etc.) takes 42.9% share in total employment. On overall country level employment in services sector takes 76.6 share in total employment while industry employs 14.6% of total number of employed persons. Other 8.9% of employees are involved in agricultural sector.

<table>
<thead>
<tr>
<th>Region</th>
<th>Agriculture</th>
<th>Construction</th>
<th>Industry</th>
<th>Services</th>
<th>Public services</th>
<th>Commercial services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>12.7</td>
<td>2.1</td>
<td>20.6</td>
<td>64.6</td>
<td>33.6</td>
<td>31</td>
</tr>
<tr>
<td>Berane</td>
<td>10.2</td>
<td>3.1</td>
<td>12.8</td>
<td>73.9</td>
<td>32.7</td>
<td>41.2</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>21.6</td>
<td>12.5</td>
<td>12.8</td>
<td>53.1</td>
<td>16.4</td>
<td>36.7</td>
</tr>
<tr>
<td>Kolasin</td>
<td>21.5</td>
<td>2.5</td>
<td>10.1</td>
<td>65.9</td>
<td>27.7</td>
<td>38.2</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>23.2</td>
<td>5.1</td>
<td>9.9</td>
<td>61.8</td>
<td>28.1</td>
<td>33.7</td>
</tr>
</tbody>
</table>
Structure of employment according to the ownership in northern sub region shows that as well as in case of national economy employment in private sector is dominant and 56.3% of total numbers of employees are employed in private sector. In Montenegro in general, private sector employs 61.6% of total number of employees. Share of public sector in employment of northern sub region is more dominant in comparison to national average. Namely, 42.3% of employed persons work in public institutions and companies in northern sub region while share of employees in public sector on Montenegro level is 36.6%.

Average net wage (wage without taxes and contributions) in northern sub region in 2006 was €251 per month while it has been increased in 2007 to €308. Average net wage in the northern sub region is 8.8% lower compared to national average. If we observe northern region average net wage is higher than national average due to high level of wages in Niksic municipality which are above the national average.
The lowest average net wage in northern sub region in 2006 was registered in Zabljak and Plav municipalities (€205 and €206, respectively) while the highest wage was in Pljevlja municipality (€297). The lowest wage in 2007 was registered in Plav municipality (€262) while the highest wage in 2007 was registered in Pljevlja municipality (€341).

### 4.3. UNEMPLOYMENT

Unemployment represents tremendous problem in northern sub region and northern region. Unemployment rate in northern sub region was 17.8% in 2007 while in northern region it was 17.2%. Unemployment rate on country level was 12.6% in 2007 and in southern region it was 6.0%.

The highest unemployment rate in northern sub region and in whole Montenegro was registered in Berane municipality (29.7%) while the lowest unemployment rate was registered in Zabljak municipality (3.5%). Unemployment rate is also low in Andrijevica, Plav and Pluzine municipalities which is caused by involving of labor force in agricultural sector, so called subsistence economy.

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolasin</td>
<td>252</td>
<td>316</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>242</td>
<td>305</td>
</tr>
<tr>
<td>Plav</td>
<td>206</td>
<td>262</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>297</td>
<td>341</td>
</tr>
<tr>
<td>Pluzine</td>
<td>286</td>
<td>337</td>
</tr>
<tr>
<td>Rozaje</td>
<td>251</td>
<td>329</td>
</tr>
<tr>
<td>Zabljak</td>
<td>205</td>
<td>288</td>
</tr>
<tr>
<td>Savnik</td>
<td>245</td>
<td>305</td>
</tr>
<tr>
<td>Northern sub region</td>
<td>251</td>
<td>308</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>239</td>
<td>292</td>
</tr>
<tr>
<td>Niksic</td>
<td>316</td>
<td>403</td>
</tr>
<tr>
<td>Northern region</td>
<td>273</td>
<td>339</td>
</tr>
<tr>
<td>Montenegro</td>
<td>282</td>
<td>338</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>Unemployment rate (15-64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>6.9%</td>
</tr>
<tr>
<td>Berane</td>
<td>29.7%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>20.6%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>28.5%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>15.9%</td>
</tr>
<tr>
<td>Plav</td>
<td>4.3%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>13.3%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>5.7%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>20.5%</td>
</tr>
<tr>
<td>Savnik</td>
<td>18.6%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>3.5%</td>
</tr>
<tr>
<td><strong>Northern sub region</strong></td>
<td><strong>17.8%</strong></td>
</tr>
<tr>
<td>Niksic</td>
<td>17.7%</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>21.3%</td>
</tr>
<tr>
<td><strong>Northern region</strong></td>
<td><strong>17.2%</strong></td>
</tr>
</tbody>
</table>

Results of survey had shown that unemployment rate for females in northern sub region are slightly higher than unemployment rate for males.

Graph 4.6: Unemployment rate according to the gender (2007)


Unemployment rate for females in the northern region was 18.2% in 2007 while unemployment rate for males was 17.6%. Same data's for Montenegro were 11.7% and 13.5% respectively.

Table 4.10: Structure of unemployed persons according to the age groups (2007)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Northern region</th>
<th>Northern sub region</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 15 to 19</td>
<td>3.78</td>
<td>3.63</td>
</tr>
<tr>
<td>From 20 to 24</td>
<td>20.55</td>
<td>22.58</td>
</tr>
<tr>
<td>From 25 to 29</td>
<td>21.83</td>
<td>24.15</td>
</tr>
<tr>
<td>From 30 to 34</td>
<td>14.02</td>
<td>12.25</td>
</tr>
<tr>
<td>From 35 to 39</td>
<td>10.31</td>
<td>11.58</td>
</tr>
<tr>
<td>From 40 to 44</td>
<td>7.50</td>
<td>7.24</td>
</tr>
<tr>
<td>From 45 to 49</td>
<td>7.64</td>
<td>6.47</td>
</tr>
<tr>
<td>From 50 to 54</td>
<td>10.34</td>
<td>9.48</td>
</tr>
<tr>
<td>From 55 to 59</td>
<td>4.04</td>
<td>2.63</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>


Share of young persons in the northern sub regions’ unemployment was 26.21% while share of older persons (older than 55) was 2.63%. Among unemployed persons in northern sub region, 50.36% of them are persons younger than 30 years. According to the five-years age groups unemployed persons who are between 25 and 29 years have the highest share – 24.15% while unemployed persons who are between 20 and 24 years participate with 22.58% in total unemployment. This situation shows that there are barriers for employment of young persons and this situation indicates that there is a low level of creating of new jobs. If we observe northern region situation is slightly better comparing to the northern sub region because the share of young persons in unemployment is 24.33% while persons who are younger than 30 participate with 46.16% in total number of unemployed persons.

Unqualified workers participate with 15.37% in unemployment structure of northern sub region while persons with college and university education have almost same share in unemployment – 15.9%. The highest share of unemployed persons has high school – 4 years (35.67%).
Table 4.11: Structure of unemployment according to the education level (2007)

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Northern region in %</th>
<th>Northern sub region in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>13.27</td>
<td>14.63</td>
</tr>
<tr>
<td>Primary school and additional qualification 6 months II degree</td>
<td>1.08</td>
<td>0.74</td>
</tr>
<tr>
<td>High school – 3 years</td>
<td>33.18</td>
<td>31.62</td>
</tr>
<tr>
<td>High school – 4 years</td>
<td>36.05</td>
<td>35.67</td>
</tr>
<tr>
<td>Specialization based on high school – high qualified worker</td>
<td>1.62</td>
<td>1.43</td>
</tr>
<tr>
<td>College education</td>
<td>6.83</td>
<td>8.41</td>
</tr>
<tr>
<td>University education</td>
<td>7.36</td>
<td>6.67</td>
</tr>
<tr>
<td>Postgraduate studies</td>
<td>0.61</td>
<td>0.82</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>


In northern sub region 53.6% of unemployed persons are waiting for job more than 1 year i.e. volume of long term unemployment in northern sub region is 53.6% which is slightly lower than at country level. Unemployed persons in northern sub region are waiting for job in average 3.9 years. Situation is similar in northern region.

4.4. HUMAN DEVELOPMENT

Human development concept considers that increase of income is important instrument of development as well as it is human choice possibilities extension as final goal of overall development efforts. Human development concept emphasizes relation between economic growth and human development.

Key indicator of human development is Human Development Index. The size of this index is in interval 0-1 having in mind that size between 0 and 0.5 indicates low level of human development; 0.5-0.8 – indicates a medium level and 0.8-1 indicates a high level of human development. Human Development Index comprehends only three essential dimensions of human existence and this index is based on closure of:

- Average life expectancy
- Literacy rate
- BDP per capita (PPP $) as estimation of population standard of living.

The data’s from ISSP/UNDP Human Development Report for Montenegro from 2004 shows that municipalities in northern region are less developed than rest of the country. Namely, Human Development Index in northern sub region in 2004 was 0.765 while this index for central sub region was 0.813 and in southern sub region this index was 0.802 and that means that northern sub region was in the middle level of development while other two sub regions were high developed in sense of human development. In human development sense most undeveloped municipality of the northern sub region is Municipality of Savnik while Municipality of Pluzine represents the most developed municipality. The most significant influence in case of Pluzine has high GDP per capita which has been generated in hydro plant Piva.

Table 4.12: Values of Human Development Index

<table>
<thead>
<tr>
<th>Municipality</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>0.674</td>
<td>0.723</td>
</tr>
<tr>
<td>Berane</td>
<td>0.724</td>
<td>0.768</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>0.675</td>
<td>0.730</td>
</tr>
<tr>
<td>Zabljak</td>
<td>0.722</td>
<td>0.760</td>
</tr>
</tbody>
</table>
The lowest level of Human Development Index in northern region and whole Montenegro has been registered in Municipality of Savnik while low values of this index has also been registered in following municipalities: Plav, Andrijevica and Bijelo Polje. During 2000-2004 period value of Human Development Index increased almost in all municipalities and main reason for this increase was economic growth or GDP growth in these municipalities.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolasin</td>
<td>0.702</td>
<td>0.754</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>0.721</td>
<td>0.768</td>
</tr>
<tr>
<td>Plav</td>
<td>0.669</td>
<td>0.743</td>
</tr>
<tr>
<td>Pluzine</td>
<td>0.831</td>
<td>0.833</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>0.726</td>
<td>0.799</td>
</tr>
<tr>
<td>Rozaje</td>
<td>0.709</td>
<td>0.744</td>
</tr>
<tr>
<td>Savnik</td>
<td>0.639</td>
<td>0.743</td>
</tr>
<tr>
<td>Northern sub region</td>
<td>0.711</td>
<td>0.765</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>0.701</td>
<td>0.734</td>
</tr>
<tr>
<td>Niksic</td>
<td>0.781</td>
<td>0.793</td>
</tr>
<tr>
<td>Montenegro</td>
<td>0.765</td>
<td>0.799</td>
</tr>
</tbody>
</table>

Source: Human Development Report for Montenegro. ISSP/UNDP. 2005
5. INFRASTRUCTURE

5.1. ROAD INFRASTRUCTURE

Montenegro has a diverse landscape, which consists of high mountain missives (Orjen, Lovcen, Rumija, Bjelasica, Komovi, Durmitor, and Prokletije), valleys (Zetska, Grbaljska, Bjelopavlicka) shredded with a very large number of rivers canyons (Moraca, Lim, Tara, Cehotina). This landscape, combined with the climate, makes construction and maintenance of transportation infrastructure very difficult. If we add to this a fact that over 55% of Montenegro’s total area is at an altitude above 1,000 m and that 24% of total area of Montenegro is on a slope greater than 30 degrees, we get an extreme for development and maintenance of transportation infrastructure. This is especially true in the winter season.

Besides an unfavorable landscape, road infrastructure maintenance is made even harder because of the fact that a large number of roads have not been brought to the projected stage of development.

Table 5.1: Total length of roads in km

<table>
<thead>
<tr>
<th>Administrative units</th>
<th>Main roads u km</th>
<th>Regional roads km</th>
<th>Local roads km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern sub-region</td>
<td>374,635</td>
<td>509,673</td>
<td>2,478,0</td>
</tr>
<tr>
<td>Montenegro</td>
<td>910,00</td>
<td>936,50</td>
<td>5,100,00</td>
</tr>
</tbody>
</table>

Source: Strategy of traffic development Montenegro, Ministry Maritime affairs, transportation and telecommunication

The northern region of Montenegro has a dense road network with a total length of about 72 865 km. The most important are the main and regional roads, which total 857 km, while others are classified as local and non-categorized roads. About 50% of the 947 local and uncategorized roads are asphalt roads. Out of the 857 km of regional and main roads, 90% have been asphalted. The total density of main and regional roads is 13 km per 100 km². More than 66% of the regional and main roads are older than 25 years.

Table 5.2: Total length of regional roads

<table>
<thead>
<tr>
<th>Administrative units</th>
<th>Local roads (km)</th>
<th>Non-categorized roads (km)</th>
<th>Total local and non-categorized roads (km)</th>
<th>Total density (km/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>59.7</td>
<td>662.1</td>
<td>721.8</td>
<td>22.00</td>
</tr>
<tr>
<td>Berane</td>
<td>324.5</td>
<td>-</td>
<td>324.5</td>
<td>35.12</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>305.3</td>
<td>-</td>
<td>305.3</td>
<td>42.58</td>
</tr>
<tr>
<td>Kolasin</td>
<td>377.4</td>
<td>157.2</td>
<td>534.6</td>
<td>42.07</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>26.5</td>
<td>244.5</td>
<td>271</td>
<td>7.22</td>
</tr>
<tr>
<td>Plav</td>
<td>290.6</td>
<td>-</td>
<td>290.6</td>
<td>59.8</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>369.4</td>
<td>112.1</td>
<td>481.5</td>
<td>27.44</td>
</tr>
<tr>
<td>Pluzine</td>
<td>263.6</td>
<td>-</td>
<td>263.6</td>
<td>30.8</td>
</tr>
<tr>
<td>Rozaje</td>
<td>162</td>
<td>226.5</td>
<td>388.5</td>
<td>89.72</td>
</tr>
<tr>
<td>Savnik</td>
<td>136</td>
<td>254</td>
<td>390</td>
<td>24.59</td>
</tr>
<tr>
<td>Zabljak</td>
<td>163</td>
<td>120</td>
<td>283</td>
<td>36.63</td>
</tr>
<tr>
<td><strong>Total north sub-region</strong></td>
<td><strong>2,478.0</strong></td>
<td><strong>1,776.4</strong></td>
<td><strong>4,254.4</strong></td>
<td><strong>38.00</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>98.0</td>
<td>258.7</td>
<td>356.7</td>
<td>19.56</td>
</tr>
<tr>
<td>Niksic</td>
<td>234.0</td>
<td>163.0</td>
<td>397</td>
<td>11.33</td>
</tr>
<tr>
<td><strong>Total northern region</strong></td>
<td><strong>2,810.0</strong></td>
<td><strong>2,198.1</strong></td>
<td><strong>5,008.1</strong></td>
<td><strong>48.00</strong></td>
</tr>
</tbody>
</table>

Source: Analyses of local roads in Montenegro, Ministry Maritime affairs, transportation and telecommunication
The total length of local roads in northern sub-region is 2,478 km while total length of non-categorized roads is 1,776.4 km. The total length of local roads in Municipality of Niksic is 234 km and the length of non-categorized roads is 163 km. The municipality of Danilovgrad has 98km of local roads and 258.7 km of non-categorized roads. The Average density of local roads in the northern region is 38km/km² and for Municipalities of Danilovgrad and Niksic it is 19.56 and 11.33 km/km² respectively.

Table 5.3: Total length of regional and magisterial roads per municipality

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Regional (km)</th>
<th>Main (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>6.5</td>
<td>36</td>
</tr>
<tr>
<td>Berane</td>
<td>39.5</td>
<td>28.2</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>n.a.</td>
<td>48.4</td>
</tr>
<tr>
<td>Kolasin</td>
<td>36.5</td>
<td>78.9</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>n.a.</td>
<td>21.0</td>
</tr>
<tr>
<td>Plav</td>
<td>20.1</td>
<td>36.6</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Pluzine</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>Rozaje</td>
<td>52.95</td>
<td>32.2</td>
</tr>
<tr>
<td>Savnik</td>
<td>46.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Zabljak</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>14.0</td>
<td>24.5</td>
</tr>
<tr>
<td>Niksic</td>
<td>153.0</td>
<td>81.0</td>
</tr>
</tbody>
</table>

Source: Direction for Traffic

The total length of regional roads in the northern region of Montenegro is 242.05 km while total length of main roads is 336.3km. In the municipality of Danilovgrad the total length of regional roads is 14km and in Niksic it is 156km. The main roads in Danilovgrad have a length of 24.55km and in Niksic, 81km.

Table 5.4: Regional roads in north region

<table>
<thead>
<tr>
<th>Regional roads</th>
<th>km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane-Andrijevica</td>
<td>16.43</td>
</tr>
<tr>
<td>Pljevlja-Dajevica Han (Pljevlja)</td>
<td>3.151</td>
</tr>
<tr>
<td>Dajevica Han (Pljevlja) – Montenegrin border (Metaljka)</td>
<td>35.975</td>
</tr>
<tr>
<td>Dajevica Han (Pljevlja) - Montenegrin border (Cemereno)</td>
<td>10.299</td>
</tr>
<tr>
<td>Pljevlja- Djurdjevica Tara (Pljevlja)</td>
<td>37.847</td>
</tr>
<tr>
<td>Djurdjevica Tara (Pljevlja) – Mojkovac</td>
<td>45.992</td>
</tr>
<tr>
<td>Djurdjevica Tara (Pljevlja)- Virak (Zabljak)</td>
<td>27.466</td>
</tr>
<tr>
<td>Virak (Zabljak) - Boan (Savnik)</td>
<td>22.616</td>
</tr>
<tr>
<td>Boan (Savnik) – Savnik</td>
<td>17.336</td>
</tr>
<tr>
<td>Gornje Polje (Niksic) – Krstac (Niksic)</td>
<td>44.527</td>
</tr>
<tr>
<td>Rozaje – Vuca (Rozaje)</td>
<td>28.172</td>
</tr>
<tr>
<td>Rozaje – Kula (Rozaje)</td>
<td>17.406</td>
</tr>
<tr>
<td>Murino (Andrijevica) – Gustinje (Plav)</td>
<td>18.703</td>
</tr>
<tr>
<td>Slijepac most (Mojkovac) – Trlica(Mojkovac) (Niksic)</td>
<td>65.368</td>
</tr>
<tr>
<td>(Niksic)Vlusi- Deleuša (Niksic)</td>
<td>21.125</td>
</tr>
<tr>
<td>Virak (Zabljak) – Pluzine</td>
<td>48.700</td>
</tr>
<tr>
<td>Berane- Kalace (Berane)</td>
<td>36.865</td>
</tr>
<tr>
<td>Jasenovo polje (Niksic)- Savnik</td>
<td>28.125</td>
</tr>
<tr>
<td>Kolašin – Mateševo – Andrijevica</td>
<td>45.943</td>
</tr>
<tr>
<td>Kolašin - Mateševo – Podgorica</td>
<td>n.a.</td>
</tr>
<tr>
<td>Mijoska (Kolašin) – Semolj</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
The problems in the transportation infrastructure in this area of Montenegro, as well as in Montenegro as a whole are: partially unfinished roads; maintenance, including in numerous critical points; complicated winter maintenance as a result of the high altitude of the road network, the large number of steep slopes and descents in the mountainous areas and such infrastructure objects as bridges and tunnels; outdated engineering technology of highways.

The total length of regional roads in this area of Montenegro is 509,673 km, which evidence of very developed road network when considering territory Montenegro’s size and landscape.

Table 5.5: Main roads in northern region of Montenegro

<table>
<thead>
<tr>
<th>Main roads</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolašin - Beane</td>
<td>n.a</td>
</tr>
<tr>
<td>Total</td>
<td>509,673</td>
</tr>
</tbody>
</table>

*() Municipal where regional road exists

The total length of main roads in this region is 374,635 km. Main roads are very important in this area. The main problem of these roads is age and damage.

11 Regional road Kolasin – Berane, over the Bjelasica, is the nearest relate with Serbia, and with Montenegrin seaside over the Kolasin. This road is very important to developing Bjelasica.
The following table shows the distances between the northern regions' biggest cities to the biggest cities in Montenegro, as well as the travel time by bus.

Table 5.6: Distance between cities, from Podgorica to Bar

<table>
<thead>
<tr>
<th>REACH</th>
<th>Podgorica</th>
<th>Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>km</td>
<td>H</td>
</tr>
<tr>
<td>Niksic</td>
<td>54</td>
<td>1h</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>174</td>
<td>3h 25’</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>118</td>
<td>2h 55’</td>
</tr>
<tr>
<td>Berane</td>
<td>140</td>
<td>2h 45’</td>
</tr>
</tbody>
</table>

Source: Bus station Podgorica

5.2. RAILWAY SYSTEM

Railway Bar-Beograd passes through mountain region of Montenegro. This railway has significantly contributed to this area's development. Railway passes through Kolasin, Mojkovac and Bijelo Polje. Municipalities of Niksic and Danilovgrad have also been connected with railway to Podgorica and Bar. These railways are under reconstruction and therefore are out of function.

Railway characteristic is quite old equipment and railway system what results in numerous delay of trains. Because of that capital investments are necessary. Total length of railway network in Montenegro is 250.4 km of open rail with railway track width of 1.435 mm. It is one of the most difficult railways in Europe where on Vrbnica-Podgorica and Podgorica-Niksic railway slope is 25 per mils.12

Following table shows distance of railway station in mountain region from Podgorica and Bar.

Table 5.7: Railway stations distance in Montenegro in km

<table>
<thead>
<tr>
<th>Railway station distance in Montenegro in km</th>
<th>Podgorica</th>
<th>Bar</th>
<th>Bijelo Polje</th>
<th>Kolasin</th>
<th>Mojkovac</th>
<th>Niksic</th>
<th>Border with Serbia (Vrbnica)</th>
<th>Border with Albania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bijelo Polje</td>
<td>100</td>
<td>150</td>
<td>55</td>
<td>30</td>
<td>156.46</td>
<td>17</td>
<td>124.7</td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>45</td>
<td>95.4</td>
<td>55</td>
<td>25</td>
<td>101.46</td>
<td>72</td>
<td>69.74</td>
<td></td>
</tr>
<tr>
<td>Mojkovac</td>
<td>70</td>
<td>120.4</td>
<td>30</td>
<td>25</td>
<td>126.46</td>
<td>47</td>
<td>94.74</td>
<td></td>
</tr>
<tr>
<td>Niksic</td>
<td>56.5</td>
<td>106.46</td>
<td>156.46</td>
<td>101.46</td>
<td>126.46</td>
<td>173.46</td>
<td>81.24</td>
<td></td>
</tr>
<tr>
<td>Border with Serbia (Vrbnica)</td>
<td>117</td>
<td>167.4</td>
<td>17</td>
<td>72</td>
<td>173.46</td>
<td>141.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Border with Albania</td>
<td>24.74</td>
<td>75.14</td>
<td>124.7</td>
<td>69.74</td>
<td>94.74</td>
<td>81.24</td>
<td>141.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: Railway Company of Montenegro INC

Railway in whole enables traffic to passengers and cargo train and rails trains as well as track trains for railway’s maintenance. Highest allowed load by shaft is on Vrbnica – Podgorica part and it is 22.5 tons while on Niksic – Podgorica track is 18 tons. On Vrbnica-Podgorica part with total length of 117 km on bridges and tunnels goes 52 km of railway (44% of total length) and 43 km support and bandage walls have been built in railways’ trunk.

5.3. AIR TRAFFIC

There are two airports in Montenegro, in Podgorica and Tivat. Air traffic isn’t developed in the northern Montenegro. Following table shows distance of the northern region’s major cities form Montenegrin and regional airports.

Table 5.8: Distance of the northern region’s major cities form Montenegrin and regional airports

<table>
<thead>
<tr>
<th>Municipalities distance (in km)</th>
<th>Airports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Airport Podgorica</td>
</tr>
<tr>
<td>Niksic</td>
<td>54</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>121</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>180</td>
</tr>
<tr>
<td>Berane</td>
<td>140</td>
</tr>
</tbody>
</table>

Source: www.montenegro-canada.com

Secondary airport network is consisted of three small airports in Niksic, Berane and Zabljak. Berane airport was being used during 1961-1976 for public transport in air traffic. Currently is used only as sport airport. Airport has build infrastructure: take off-lending runway with asphalt cover 1900 m long, taxiway and platform with asphalt cover as well.

Niksic airport (Kapino polje) is used as sport airport has grassy take off runway 1200 m long. Zabljak airport currently exist only as location. Past activities on take off runway construction has been stopped because of significant financial investments because of low ground tonnage.

5.4. INFRASTRUCTURE FOR ENVIRONMENTAL SUSTAINABILITY

5.4.1. WATER SUPPLY

There are many questions and misunderstandings about the water supply sector in the northern region of Montenegro. Compared to the coastal area, the problems lie not in a dearth of resources but more in resource management. All water supply systems are owned by the state. The goal is to provide an adequate quantity of water to homes and businesses. However, there has been little discussion about the reconstruction and modernization of the water supply system. For the most part, water, which is consumed, is derived from mountain sources with the help of gravity and without the assistance of pump stations. Water from these sources does not need to go through the entire refining process. The only process it must go through is disinfections by chlorination. In many instances, this process is not even necessary.

Water supply systems are managed by publicly-owned companies. The management of the companies is therefore subject to political and managerial trends. The price of water is established by municipalities, who establish it according their own needs for water resources. It is a reflection of the social policy of the country – the development of this sector is possible with the expectation that it could become one of the most profitable sectors in the country. The cost for homes and business poses a large problem for this sector. In the face of these challenges, the national and municipal governments still do not have a specific plan to solve these problems.

Table 5.9: Water supply in the northern region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Water supply (m3/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Companies</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>88.11</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>618.0</td>
</tr>
<tr>
<td>Berane</td>
<td>677.0</td>
</tr>
<tr>
<td>Kolasin</td>
<td>239.0</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>188.0</td>
</tr>
<tr>
<td>Plav</td>
<td>205.0</td>
</tr>
</tbody>
</table>
The total estimated volume of water, from data, which is provided to institutions by public companies in the north sub region, is 3,576.6 m³/d, including 70 m³/d for Danilovgrad and 5,466.3 m³/d for Niksic.

### 5.4.2. Waste WATER AND SEWAGE SYSTEM

Sewage system that exists at the moment represents a big problem in this region of Montenegro. Legislation regulating wastewater emission and canal system is sufficient, but it does not completely resolve the wastewater problem.

The current canalization system is not adequate for the needs of citizens and companies in this region. Numerous citizens use septic barrows for wastewater release, while numerous companies use the river canyon to fulfill this need.

### Table 5.10: Sewage system in the northern Montenegro

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Area covered with sewage system (ha)</th>
<th>Total length of sewage system (km)</th>
<th>Percent of population without sewage system (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>12.4</td>
<td>2.4</td>
<td>89%</td>
</tr>
<tr>
<td>Berane</td>
<td>140.8</td>
<td>16</td>
<td>75%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>79.2</td>
<td>7.7</td>
<td>93%</td>
</tr>
<tr>
<td>Kolašin</td>
<td>39.9</td>
<td>3.4</td>
<td>83%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>33.4</td>
<td>4.3</td>
<td>70%</td>
</tr>
<tr>
<td>Plav</td>
<td>62.5</td>
<td>8.1</td>
<td>83%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>314.1</td>
<td>24.2</td>
<td>47%</td>
</tr>
<tr>
<td>Plužine</td>
<td>30.3</td>
<td>1.9</td>
<td>79%</td>
</tr>
<tr>
<td>Rožaje</td>
<td>99</td>
<td>12</td>
<td>77%</td>
</tr>
<tr>
<td>Šavnik</td>
<td>6.1</td>
<td>1.1</td>
<td>86%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>27.9</td>
<td>4.3</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Total northern sub-region</strong></td>
<td><strong>845.6</strong></td>
<td><strong>85.4</strong></td>
<td><strong>78%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>36.3</td>
<td>2.5</td>
<td>87%</td>
</tr>
<tr>
<td>Nikšić</td>
<td>351.4</td>
<td>39</td>
<td>64%</td>
</tr>
<tr>
<td><strong>Total northern region</strong></td>
<td><strong>1,233.33</strong></td>
<td><strong>126.9</strong></td>
<td><strong>76%</strong></td>
</tr>
</tbody>
</table>

Source: Master plan for sewage system and wastewater, Ministry of tourism and environmental protection

Sewage systems are developed in all municipalities from this region but there are parts in the cities where canals have not been not developed. Problems occure in remote villages where sewage systems does not exist at all. Rural areas, or in some cases big city suburb settlements, have to use alternative sewage system. These unsanitary conditions can pollute ground water, which will in turn pollute drinking water sources. These problems have arisen as a result of the insufficient investment into maintenance, repairs,
reconstruction, or the creation of new canal networks. This poses very important ecological question within this region. The total length of the canal network in the northern region is 85.4 km, while in Danilovgrad it is 2.5 km and in Niksic it is 39 km.

Analyses of water supply in Montenegro occur very rarely. One can expect that in the future the percentage of wastewater in all municipalities will increase. This expectation is based on the fact that the majority of factories within the region are have a decreased capacity to work, while in the future activities will increase.

The following table gives data on the volume of wastewater per municipality. We can see that Niksic has the largest amount of wastewater, which is explained by the fact that it is the main industrial center in the region.

Table 5.11: Effluent water in North region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Effluent water in North region (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>372</td>
</tr>
<tr>
<td>Berane</td>
<td>4,255</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>5,426</td>
</tr>
<tr>
<td>Kolasin</td>
<td>1,041</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>1,459</td>
</tr>
<tr>
<td>Plav</td>
<td>1,369</td>
</tr>
<tr>
<td>Prijevlja</td>
<td>5,469</td>
</tr>
<tr>
<td>Pluzine</td>
<td>643</td>
</tr>
<tr>
<td>Rozaje</td>
<td>2,510</td>
</tr>
<tr>
<td>Savnik</td>
<td>165</td>
</tr>
<tr>
<td>Zabljak</td>
<td>645</td>
</tr>
<tr>
<td><strong>Total north sub-region</strong></td>
<td><strong>23,354</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>1,454</td>
</tr>
<tr>
<td>Niksic</td>
<td>18,510</td>
</tr>
<tr>
<td><strong>Total north region</strong></td>
<td><strong>43,318</strong></td>
</tr>
</tbody>
</table>

*Source: Master plan for sewage system and waste water, Ministry of tourism and environmental protection

Companies in the region that are producers of waste waters.

Table 5.12: Companies in region, which creates wastewater

<table>
<thead>
<tr>
<th>Location</th>
<th>Company or area</th>
<th>Activity</th>
<th>Last receptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bijelo Polje</td>
<td>ŠPIRO DACIĆ</td>
<td>Manufacturing of lumber and wood products</td>
<td>River Lim</td>
</tr>
<tr>
<td></td>
<td>ECOMESO</td>
<td>Meat Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VUNKO</td>
<td>Manufacturing of wool</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECOFLORA (ex BUDIMKA)</td>
<td>Manufacturing of fruits</td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>POLIMKA</td>
<td>Leather companies</td>
<td>River Lim</td>
</tr>
<tr>
<td></td>
<td>A.D. BERANE</td>
<td>Manufacturing of lumber and wood products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BERANKA</td>
<td>Paper Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZORA</td>
<td>Dairy products</td>
<td></td>
</tr>
<tr>
<td>Mojkovac</td>
<td>ELOKSIRANA BRAVARIJA</td>
<td>Aluminum frames</td>
<td>River Tara</td>
</tr>
<tr>
<td>Prijevlja</td>
<td>TE PJEVLJA</td>
<td>Thermo plant</td>
<td>River Čehotina</td>
</tr>
<tr>
<td></td>
<td>RUDNIK UGLJA</td>
<td>Bosket mine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VELIMIR JAKIĆ</td>
<td>Manufacturing of lumber and wood products</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Company or area</td>
<td>Activity</td>
<td>Last receptors</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>----------</td>
<td>---------------</td>
</tr>
<tr>
<td>Rozaje</td>
<td>GORNI IBAR</td>
<td>Manufacturing of lumber and wood products</td>
<td>River Ibar</td>
</tr>
<tr>
<td></td>
<td>A.D. DEKOR</td>
<td>Printing</td>
<td></td>
</tr>
<tr>
<td>Niksic</td>
<td>TREBESA</td>
<td>Beer company</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZELEZARA NIKSIC</td>
<td>Iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BREZOVIK</td>
<td>Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GORANOVIC (2 objects)</td>
<td>Meat manufacturing</td>
<td>River Zeta</td>
</tr>
<tr>
<td></td>
<td>AGROPRODUCT</td>
<td>Dairy products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NEKSAN</td>
<td>Production of alcoholic products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>METALAC</td>
<td>Industrial manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MLIN MUSHREM ASOVIĆ</td>
<td>Production of corn</td>
<td></td>
</tr>
</tbody>
</table>

Source: Master plan for canalization and effluence water, Ministry of tourism and environmental protection

5.4.3. SOLID WASTE MANAGEMENT

There is public company in charge for solid waste disposal in each municipality in this region. Similar to water supply system, waste disposal system is state owned, and that causes huge problems. Treca reč: Main challenge of companies in charge for waste collection and disposal is source of funding and uncabability to collect revenues for their services both from citizens and companies.

The dump sites within the region are usually established without any plans and used at an ad hoc basis, as short term solution. Collection of solid waste in these municipalities is at appropriate level, and public companies from this sector do their best to solve this issue in the bigger municipalities. Major issue is source of funding and irresponsibility of citizens and companies that do not care about about waste disposal in this area.

Table 5.13: quantity of solid waste by municipalities (Yearly basis)

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>Quantity of collected waste- yearly basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>1,424</td>
</tr>
<tr>
<td>Berane</td>
<td>8,509</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>11,486</td>
</tr>
<tr>
<td>Kolasin</td>
<td>2,262</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>2,230</td>
</tr>
<tr>
<td>Plav</td>
<td>3,627</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>7,971</td>
</tr>
<tr>
<td>Pluzine</td>
<td>951</td>
</tr>
<tr>
<td>Rozaje</td>
<td>5,328</td>
</tr>
<tr>
<td>Savnik</td>
<td>645</td>
</tr>
<tr>
<td>Zabljak</td>
<td>979</td>
</tr>
<tr>
<td><strong>Total northern subregion</strong></td>
<td><strong>45,412</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>4,864</td>
</tr>
<tr>
<td>Niksic</td>
<td>22,334</td>
</tr>
<tr>
<td><strong>Total northern region</strong></td>
<td><strong>72,610</strong></td>
</tr>
</tbody>
</table>

Source: Master plan for sewage system and waste water, Ministry of tourism and environmental protection
The total estimated volume of waste in the northern sub-region is 45,412t. In Danilovgrad it is 4,864 t. In Niksic the total estimated volume of waste is 22,334 t.

The second problem mentioned is the system that determines the prices for solid waste drain. In 2007 there were several attempts to find a solution for equalizing the price of solid waste drain. For individuals the price of solid waste drain depends on the residential zone and the surface area they own. For businesses the main factor of price determination is the company’s activity type.

Table 5.14: Monthly fees for solid waste collection services

<table>
<thead>
<tr>
<th>Institution type</th>
<th>Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Institutions</td>
<td>0.06€ /m²</td>
</tr>
<tr>
<td>Medical Institutions</td>
<td>0.12€ /m²</td>
</tr>
<tr>
<td>Kiosk</td>
<td>18.90 €</td>
</tr>
<tr>
<td>Stands</td>
<td>20.20€</td>
</tr>
</tbody>
</table>

Source: JKP “Čistoća”

5.5. ENERGY INFRASTRUCTURE AND ENERGY SUPPLY

Montenegrin Electric Public Company (EPCG) is currently the only company for production, transmission and distribution of electric power in Montenegro and the state has major ownership part. Organizational structure of EPCG has four functional divisions: Production, Transmission, Distribution and Supply. Besides that, there are also two organizational parts: Directorate and Electro construction. Directorate represents functional unit that deals with electric energy production. It is consisted of three bigger production units in the northern region of Montenegro. It is consisted of two hydro power plants (HPP) ‘Piva’ and ‘Perucica’ as well as thermo power plant (TPP) ‘Pljevlja’. System is also consisted of seven small electric power plants which has insignificant capacities for the electric energy production.

Total installed power of the system is estimated on 868 MW, while electric power on the brink is estimated on 849 MW. Hydro power plants have the biggest share in a total installed power (76%) and theirs share in a total produced energy is 61%. Existing water courses in Montenegro are not sufficiently used which shows the fact that from the total 9,846 GWh of hydro energetic potential on the main water courses only 1,800 GWh have been used (slightly more than 17%).

Graph 5.1: Total share of power plants in the total installed power and energy production

Source: Strategy on energy development up to 2025, Government of Montenegro, 2007
Electric energy transmitting is been conducted through functional unit named ‘Transmission’ and through transmission network 110 kV, 220 kV and 400 kV. Energy is distributed through 16 distributions on a territory of Montenegro and that activity is addressed to functional unit ‘Distribution’. From the total number of 16 distributions in Montenegro half of them (eight) are being situated in the northern region of Montenegro in municipalities: Bijelo Polje, Zabljak, Berane, Kolasin, Mojkovac, Niksic, Pljevlja and Rozaje. Distribution network provides energy power for 285,000 consumers in Montenegro through the system of direct transformation 110/10 kV.

**5.5.1. ENERGETIC FACILITIES**

**5.5.1.1. HYDRO PLANTS**

Analysis of electro energetic system of Montenegro shows that more than 75% of producing capacities have been installed in HPP’s. On the other side, Montenegro has tremendous hydro energetic potential which is mostly situated in the river confluences from the northern region and whose capacities are underestimated and poorly used.

**HPP PERUCICA**

HPP Perucica represents accumulation-derivative plant which is located near Glava Zeta location and which uses water of Niksic field confluence area. River Zeta is the main water course with its confluents Gracanica, Mrkosnica, Grabovik, Opacica and Mostanica. There are three dams in HPP Perucica system and they are consisted of three accumulations: Krupac (42.1 mil. m³) and Slano (111.3 mil. m³), as well as retention Vrtac (71.9 mil. m³). HE Perucica is using water from Glava Zete with gross downfall of 550 meters.

Construction of HPP Perucica was done through several phases. The first phase was started in 1960 and other two started in 1962 and 1978. After finalization of the last phase total installed power of this HPP was 307 GWh.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>W (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>100</td>
</tr>
<tr>
<td>1970</td>
<td>856</td>
</tr>
<tr>
<td>1980</td>
<td>1,162</td>
</tr>
<tr>
<td>1990</td>
<td>563</td>
</tr>
</tbody>
</table>
HPP Perucica had realized in 1996 maximal energy production of 1,356 GWh while average energy production during the period 1978-2005 was 903 GWh. HPP Perucica needs new investments, new project of reconstruction and modernization which will increase energy production up to 970 GWh.

**HPP Piva**

HPP Piva represents accumulation-damming installation on river Piva situated in the northern sub region between mountain massive Piva, Komarnica and Vrbnica. Aggregate started to work in 1976. Confluence area of HPP Piva is 1,760 km² and the total installed power of aggregate is 3x114 MW while total volume of accumulation is 880 mill m³.

HPP Piva up to now is working as basic HPP in electro energetic system of Serbia. According to that EPCG and EPS have an agreement in which EPCG is obliged to deliver electric power to EPS regarding Serbia needs (in average 765 GWh annually). On the other side, EPS is obliged to deliver basic electric energy to EPCG of 105 MW during the whole year as well as added 105 MW for 58 days during the maintenance of TPP Pljevlja.

Table 5.16: Production in HPP Piva

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PRODUCTION (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>484</td>
</tr>
<tr>
<td>1980</td>
<td>940</td>
</tr>
<tr>
<td>1990</td>
<td>426</td>
</tr>
<tr>
<td>2000</td>
<td>675</td>
</tr>
<tr>
<td>2001</td>
<td>748</td>
</tr>
<tr>
<td>2002</td>
<td>407</td>
</tr>
<tr>
<td>2003</td>
<td>694</td>
</tr>
<tr>
<td>2004</td>
<td>988</td>
</tr>
<tr>
<td>2005</td>
<td>818</td>
</tr>
</tbody>
</table>

Source: *Strategy on energy development up to 2025, Government of Montenegro, 2007*

During the period from 1997 to 2004 HPP Piva had realized total average production of 739.5 GWh while in 1979 it had realized maximal production level of 1,029 GWh. Average production was lower than projected (860 GWh) for 14% which was consequence of bad hydrology conditions. According to specific climate conditions and the fact that complete installation of HPP Piva is situated under ground new investments are necessary in order to decrease maintenance expenditures.

**Small HPP’s**

Montenegro has seven states owned HPP’s and they are situated in confluences of northern regions’ rivers. Some of them are: Glava Zete, Slap Zete, Rijeka Musovica, Savnik and Lijeva Rijeka.
Table 5.17: Technical characteristics of small HPPs within the northern region

<table>
<thead>
<tr>
<th></th>
<th>Glava Zete (Danilovgrad)</th>
<th>Slap Zete (Danilovgrad)</th>
<th>Rijeka Musovica (Kolasin)</th>
<th>Savnik</th>
<th>Lijeva Rijeka (Kolasin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year of construction</td>
<td>1954</td>
<td>1952</td>
<td>1950</td>
<td>1957</td>
<td>1987</td>
</tr>
<tr>
<td>River</td>
<td>Zeta</td>
<td>Zeta</td>
<td>Levaja</td>
<td>Savnik</td>
<td>Grbi dol</td>
</tr>
<tr>
<td>Turbine power (kW)</td>
<td>2x2680</td>
<td>2x600</td>
<td>3x420</td>
<td>2x100</td>
<td>55</td>
</tr>
<tr>
<td>Flow (m³/s)</td>
<td>2x14.5</td>
<td>2x13</td>
<td>3x0.35</td>
<td>2x0.5</td>
<td>0.22</td>
</tr>
<tr>
<td>Productive fall (m)</td>
<td>21.5</td>
<td>7</td>
<td>160</td>
<td>26</td>
<td>40.8</td>
</tr>
</tbody>
</table>

Source: Strategy on energy development up to 2025, Government of Montenegro, 2007

At the very beginning of work HPP Rijeka Musovica, Slap Zete and Glava Zete represented the basic source of electric energy system in Montenegro. According to that small HPP Musovica with its production covered total energy consumption needs of the northern Montenegro and was connected to electro energetic system of Serbia. All the seven small HPP’s are by theirs characteristics flux based and their total installed power is 9.025 MW while expected annual consumption is 21 GWh.

By the construction of great systems small HPP’s were put into the second plan. Nevertheless, current situation shows that there are positive changes related to small HPP’s and the best example for that are announced tenders for construction of small HPP’s in Montenegro that can reduce problem of deficit in energy sector.

5.5.1.2. TPP PLJEVLJA

TPP Pljevlja represents the first condensation thermo power plant in Montenegro consisted of two blocks of capacity 210 MW each. Construction of TPP Pljevlja started in 1976 and the first synchronization on the network was done in 1982. TPP Pljevlja is also situated in the northern part of Montenegro, on a fourth kilometer of a road Pljevlja-Djurdjevica Tara-Zabljak. TPP is using coal from the location Ljuce-Sumani and Potrlica, with caloric values of 9,211 kJ/kg (2,200 kcal/kg).

TPP complex is consisted of these components:

- Arranged location with the following infrastructure;
- Main operative object (pot and machinery);
- Coal storage and coal supply;
- Storage and fuel oil pump station;
- Subsidiary caldron;
- Electrolysis station for the hydrogen;
- Chemical preparation of water (HPV);
- Bagger station with electro filters and adapter station;
- Chimney;
- Refrigerating tower with the pump station of refrigerating water and system of water return;
- ‘Otilovici’ accumulation with the pump for fresh water to TPP;
- System of ash and cinder draining with ‘Maljevac’ storage;
- Work shops, storages and administrative building.

TPP Pljevlja, according the fact that only one block is in function, has current installed power of 210 MW and is working like a basic power plant in the system. It is projected to work 6,000 hours per year which means maximal annual production of 1,146 GWh.
Table 5.18: Energy production in TPP Pljevlja

<table>
<thead>
<tr>
<th>Year</th>
<th>Generator production (GWh)</th>
<th>Production on the brink (GWh)</th>
<th>Working hours (h)</th>
<th>Coal consumption (000 t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>60.4</td>
<td>55.5</td>
<td>505</td>
<td>67.9</td>
</tr>
<tr>
<td>1990</td>
<td>1,142.3</td>
<td>1,033.9</td>
<td>5,935</td>
<td>1,217.5</td>
</tr>
<tr>
<td>2000</td>
<td>1,068.7</td>
<td>954.4</td>
<td>6,219</td>
<td>1,407</td>
</tr>
<tr>
<td>2001</td>
<td>723.9</td>
<td>644.9</td>
<td>4,075</td>
<td>1,027.2</td>
</tr>
<tr>
<td>2002</td>
<td>1,226.3</td>
<td>1,100.6</td>
<td>6,549</td>
<td>1,589.8</td>
</tr>
<tr>
<td>2003</td>
<td>1,196.1</td>
<td>1,074.5</td>
<td>6,156</td>
<td>1,467.6</td>
</tr>
<tr>
<td>2004</td>
<td>1,067.8</td>
<td>954.9</td>
<td>5,771</td>
<td>1,377.1</td>
</tr>
<tr>
<td>2005</td>
<td>998</td>
<td>890.9</td>
<td>5,651</td>
<td>1,200.2</td>
</tr>
</tbody>
</table>

Source: Strategy on energy development up to 2025, Government of Montenegro, 2007

Average production in period 2002-2004 was 1,043 GWh which represents around 24% of the total energy consumption in Montenegro or 33% of the total energy production in that period. If we analyze period from 1982 to 2025, TPP Pljevlja reached average energy production of 926.6 GWh (excluding 1995 period when it was not in the function). The greatest energy production was achieved in 1985 (1,240.5 GWh).

**5.5.1.3. POTENTIAL ENERGY SOURCES**

Problem of energy deficit and increasing of energy consumption as well as the fact that Montenegro imports one third of needed energy indicates a need for new production capacities building and new investment in the energy sector. One of the steps to achieve that goals are addressed to reconstruction of existing capacities (TPP Pljevlja and HPP Perucica) as well as construction of new production capacities, mostly hydro power plants. Hydro energy is the most important natural resource for energy production in Montenegro. Hydro potential is located on a water courses on the rivers: Lim, Tara, Piva, Cehotina, Moraca and Ibar as well as their confluents.

**Project related to Pljevlja heating**

Construction of the second block in TPP Pljevlja should consider usage of the warm water and fume for Pljevlja heating. In that way total quantity of the used coal for heating should reduced negative influence on the environment. On the other hand, quality of heating should be improved. Primary energy should be saved (around 80 GWh/year) as well as coal (32,000 tons per year). Project related to Pljevlja heating should give positive effect and decrease negative effect of gas transmission from chimneys (5,000 chimneys will be deactivated). These changes should create new chances for new employments, as well.

Source: Strategy on energy development up to 2025, Government of Montenegro, 2007

If we consider the fact that Montenegro is, during last several years, more import oriented and the fact that we are faced with the problem related to energy deficit certain new activities have started related to new future hydro energetic potential usage. In that way, energy efficiency should increase which will enable modernization and reconstruction process in existing energy capacities.

Strategic orientation of Montenegro to solve problem of deficit in electric power and find alternative sources of energy is mostly based in the northern region. The northern region with its energy resources has potential and that is a chance for future development of the north. According to that, basic orientation is addressed to construction of small hydro power plants and wind power plants. Until 2011 new investment are planed and they cover mostly northern region of Montenegro. They are addressed to construction of the second block of TPP Pljevlja, HPP Andrijevo, HPP Zlatica, HPP Raslovici, HPP Komarnica, HPP Milunovici as well as wind power plants. New investment should solve problem of deficit in energy sector and increase efficiency of electro energetic system of Montenegro.
5.6. INDUSTRIAL INFRASTRUCTURE

Industrial infrastructure facilities such as technological parks, business incubators, etc. do not exist in the northern sub region and its municipalities. Nevertheless, there are industrial zones in all of the municipalities that are mainly designated by planning documentation.

Table 5.19: Industrial zones and major industrial complexes in the northern sub region

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Industrial zone</th>
<th>Industrial complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>Municipality does not have designated industrial zones.</td>
<td>Service – warehouse zone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service zone (Soko Sark)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Polimka”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Termovent”</td>
</tr>
<tr>
<td>Berane</td>
<td>Industrial zones have been designated.</td>
<td>„Polieks”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Beranka” Cellulose factory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dark coal mine Berane</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Rudes” brick factory</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Industrial zones have been designated.</td>
<td>Wool factory „Vunko”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Factory „3rd January”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„First quinquennial”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Bjelasica Rada”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Imako”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>„Viniplast”</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Municipality does not have designated industrial zones but certain service zones have been designated.</td>
<td>Service zone Njegovudja</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wood processors</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Industrial zones have been designated</td>
<td>Water factory „Aqua Bianca”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Aqua Monta”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Suza”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Gorska”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Javor”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Drijenak”</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>Industrial zones have been designated</td>
<td>“4th November”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tara-Aerospace</td>
</tr>
<tr>
<td>Plav</td>
<td>Municipality does not have designated industrial zones.</td>
<td>Alpe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obod</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Terplost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intekst</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rocket factory (out of work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titex</td>
</tr>
<tr>
<td>Pluzine</td>
<td>Industrial zones have been designated</td>
<td>Electrode factory Piva</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Pasista”</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Industrial zones have been designated</td>
<td>Coal mine Pljevlja</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thermo power plant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corporation Vektra-Jakic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clothing company „Castelo Montenegro”</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Municipality does not have designated industrial zones.</td>
<td>Water factory „Lucicko vrelo”</td>
</tr>
<tr>
<td>Savnik</td>
<td>Industrial zones have been designated</td>
<td>AD „Savnik”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Textile industry Savnik</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECO Celebic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Gusarevci”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water factory „Zmajevac”</td>
</tr>
</tbody>
</table>

Source: Municipalities Andrijevica, Berane, Bijelo Polje, Zabljak, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje i Savnik.
The municipalities of Andrijevica, Savnik, Zabljak, Plav and Rozaje do not have industrial zones that are designated by planning documentation while other northern sub region municipalities do.

Table 5.20: Industrial zones and major industrial complexes in Niksic and Danilovgrad

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Industrial zones</th>
<th>Industrial complexes</th>
</tr>
</thead>
</table>
| Danilovgrad  | Industrial zones have been designated | „Mermer“  
„Siskovic“  
Service warehouse zone by Podgorica-Niksic highway  
Service warehouse zone by old road  
Danilovgrad Podgorica  
Service warehouse zone alongside old road  
Danilovgrad-Niksic |
| Niksic       | Industrial zones have been designated by Spatial plan. | Brewery „Trebjesa“  
Niksic Iron company  
Service warehouse zone „Under Trebjesa“ |

Source: Municipalities Danilovgrad and Niksic

In the municipalities of Danilovgrad and Niksic, industrial zones have been designated while in Niksic they have been included in the municipality’s spatial plan.

5.7. INFORMATION-COMMUNICATION TECHNOLOGIES INFRASTRUCTURE

Telecommunication market of Montenegro, during past years, has faced positive changes related to liberalization and decentralization. Changes in the telecommunication sector have started in 2001 by the adaptation of Law on telecommunication. Adoption and implementation of new regulation caused privatization in the telecommunication sector. Till then state company Telekom Crne Gore has started with the privatization in telecommunication sector. Magyar Telecom became major owner which was part of Dautche Telecom. Privatization of Telekom caused positive changes in telecommunication sector creating conditions for further liberalization and decentralization. Reforms in telecommunication area were followed by establishing of independent regulatory agencies such as Agency for telecommunication and postal services and Agency for radio-diffusion. Montenegro has adopted set of laws and sub-laws related to telecommunication which were also basis for further development of this sector. Strategy for information society development as well as laws on intellectual property protection, electronic signature and E-commerce represents some of laws related to telecommunication sector in Montenegro.

Table 5.21: Information society development in Montenegro, basic indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of fixed phone users (000)</td>
<td>184</td>
<td>190</td>
<td>188</td>
<td>185</td>
<td>171</td>
<td>168</td>
</tr>
<tr>
<td>Total number of mobile phone users (000)</td>
<td>356</td>
<td>445</td>
<td>420</td>
<td>483</td>
<td>543</td>
<td>735</td>
</tr>
<tr>
<td>Total number of fixed and mobile phone users (000)</td>
<td>540</td>
<td>635</td>
<td>608</td>
<td>668</td>
<td>714</td>
<td>903</td>
</tr>
<tr>
<td>Fixed phone penetration</td>
<td>28.4</td>
<td>28.6</td>
<td>28</td>
<td>29</td>
<td>27.6</td>
<td>28</td>
</tr>
<tr>
<td>Digitalization</td>
<td>87</td>
<td>92.5</td>
<td>98</td>
<td>99.8</td>
<td>99.9</td>
<td>99.9</td>
</tr>
<tr>
<td>Mobile phone penetration</td>
<td>53.9</td>
<td>67.4</td>
<td>62.7</td>
<td>78</td>
<td>87.6</td>
<td>103.8</td>
</tr>
<tr>
<td>Percentage share of the of mobile phone users in a total number of users</td>
<td>65.9</td>
<td>70</td>
<td>69</td>
<td>72.5</td>
<td>76</td>
<td>81.3</td>
</tr>
<tr>
<td>Number of Internet subscribers (thousands)</td>
<td>18</td>
<td>27</td>
<td>37</td>
<td>51</td>
<td>68</td>
<td>73.9</td>
</tr>
<tr>
<td>Number of Internet users (thousands)</td>
<td>18</td>
<td>27</td>
<td>83</td>
<td>100</td>
<td>123</td>
<td>150</td>
</tr>
<tr>
<td>Internet penetration</td>
<td>2.6</td>
<td>4.1</td>
<td>12.5</td>
<td>16.1</td>
<td>19.8</td>
<td>23.9</td>
</tr>
<tr>
<td>Number of Internet providers</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
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</tr>
</tbody>
</table>

Source: Agency for telecommunication and postal services

If we analyze level of information society development and indicators for the northern region they show...
that there’s present digital gap in comparison to the central and southern part of republic. For example, there were 38% households with PC in 2006 in Montenegro. If we analyze northern municipalities (eight of them were included into the survey) households from Municipality of Mojkovac have the weakest PC penetration while the opposite situation is with municipality of Zabljak. If we analyze fixed telephony, high level of rate is present in the whole northern part of Montenegro, especially in households from municipalities of Rozaje and Berane. On the other side, indicators for mobile telephony are better than fixed. Based on that, 92% of households from the northern region have mobile telephony in average and 79% have fixed telephony on the other side. Mobile telephony is mostly present in households from municipalities of Pljevlja and Berane.

Table 5.22: ICT indicators for the northern region of Montenegro

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>% Households with land line telephony</th>
<th>% Households with mobile telephony</th>
<th>Number of mobile phones, in average</th>
<th>% Households with PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>87.0</td>
<td>96.3</td>
<td>2.4</td>
<td>37.4</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>78.6</td>
<td>93.9</td>
<td>2.5</td>
<td>35.7</td>
</tr>
<tr>
<td>Kolasin</td>
<td>70.0</td>
<td>85.0</td>
<td>3.1</td>
<td>40.0</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>71.4</td>
<td>90.5</td>
<td>1.7</td>
<td>19.0</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>71.4</td>
<td>97.1</td>
<td>2.9</td>
<td>32.9</td>
</tr>
<tr>
<td>Rozaje</td>
<td>97.9</td>
<td>95.7</td>
<td>2.2</td>
<td>31.9</td>
</tr>
<tr>
<td>Zabljak</td>
<td>75.0</td>
<td>91.7</td>
<td>1.7</td>
<td>41.7</td>
</tr>
<tr>
<td>Northern sub region, in average</td>
<td>79.8</td>
<td>92.1</td>
<td>2.4</td>
<td>31.4</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>72.2</td>
<td>83.3</td>
<td>2.5</td>
<td>22.2</td>
</tr>
<tr>
<td>Niksic</td>
<td>79.0</td>
<td>88.4</td>
<td>2.4</td>
<td>26.0</td>
</tr>
<tr>
<td>Northern region, in average</td>
<td>75.6</td>
<td>85.8</td>
<td>2.4</td>
<td>24.1</td>
</tr>
</tbody>
</table>

Source: ICT Survey ‘06, ISSP

5.7.1. LAND LINE TELEPHONY

Monopoly position of one operator of fixed telephony was dominated during the previous period in Montenegro. But, changes in the fixed telephony sector opened market for another one operator in this area M Tel. Fixed phone rates are constantly decreasing during last several years, which follows the trend from the region and EU countries. Fixed telephony penetration rate was 28% in 2006 in Montenegro. Mobile telephony expansion caused decreasing of fixed telephony. There were also two tariff rebalances which caused reducing of prices of international calls and calls to private entities while prices of local calls increased.

Table 5.23: Number of users of land line telephony in the northern region

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>PSTN\textsuperscript{13} - number of land line telephony users</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>1.148</td>
<td>1,002</td>
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</tr>
<tr>
<td>Berane</td>
<td>7.304</td>
<td>6,769</td>
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<tr>
<td>Bijelo Polje</td>
<td>8.175</td>
<td>8,345</td>
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<tr>
<td>Savnik</td>
<td>389</td>
<td>375</td>
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</tr>
<tr>
<td>Kolasin</td>
<td>1.557</td>
<td>1,572</td>
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<td>Mojkovac</td>
<td>1.748</td>
<td>1,676</td>
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</tr>
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<td>Plav</td>
<td>3.205</td>
<td>3,094</td>
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<tr>
<td>Pluzine</td>
<td>576</td>
<td>552</td>
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<tr>
<td>Rozaje</td>
<td>3.695</td>
<td>3,007</td>
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<tr>
<td>Zabljak</td>
<td>924</td>
<td>903</td>
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</tr>
</tbody>
</table>
Analysis of the municipalities from the regions shows the highest presence of land line telephony in the rural parts of municipalities of Pljevlja, Danilovgrad and Niksic.

### 5.7.2. MOBILE TELEPHONY

Mobile telephony penetration is extremely high in Montenegro. In November 2007 it reached 160% which means that there were 992,092 mobile phone users in Montenegro. Currently there are three mobile phone operators: ProMonte, T-Mobile and M Tel. It means that mobile phone market is highly liberalized and opened. All three mobile phone operators cover the northern region of Montenegro, as well.

If we analyze northern region and mobile phone presence there are almost no regional differences which mean that mobile telephony is represent in the households from the northern region also. Average number of mobile phones per households, according the ICT Survey 2006, in nine municipalities (Niksic, Danilovgrad, Berane, Bijelo Polje, Kolasin, Mojkovac, Pljevlja, Zabljak and Rozaje) was 2.3 while the highest level of mobile phone presence per household was in municipalities of Kolasin and Pljevlja.

### 5.7.3. TV

Majority of households in Montenegro posses TV sets. If we analyze whole territory of the Republic 97.8% households own TV. That percent is almost the same for seven municipalities from the north. Results for these municipalities are based on ISSP ICT Survey 2006 which has seven municipalities from the northern region.

If we analyze commercial TV emitters, National TV (RTCG), TVIN and ATV are emitters that covers overall northern region territory. On the other side, if we analyze radio-diffuse emitters RTCG covers whole territory of the north.
<table>
<thead>
<tr>
<th>Commercial Radio-diffuse emitters</th>
<th>Andrijevica</th>
<th>Berane</th>
<th>Bijelo Polje</th>
<th>Kolasin</th>
<th>Mojkovac</th>
<th>Nikšić</th>
<th>Plav</th>
<th>Pljevlja</th>
<th>Plužine</th>
<th>Rozaje</th>
<th>Danilovgrad</th>
<th>Savnik</th>
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</table>
| Source: Agency for radio diffusion 

Radio station coverage is different in different municipalities from the north. Based on that, municipalities
of Niksic, Bijelo Polje, Pljevlja and Danilovgrad have the highest number of radio stations.

Table 5.25: Radio-diffuse emitters

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<thead>
<tr>
<th>Public Radio-diffusing emitter</th>
<th>Andrijevica</th>
<th>Berane</th>
<th>Bijelo Polje</th>
<th>Kolasin</th>
<th>Mojkovac</th>
<th>Niksic</th>
<th>Plav</th>
<th>Pljevlja</th>
<th>Pluzine</th>
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<th>Danilovgrad</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio Pljevlja</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV Pljevlja</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Radio Rozaje</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio Danilovgrad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Source: Agency for radio diffusion

5.7.4. Internet

There were five Internet providers in Montenegro in 2006, but still one of them is dominant (T-Com). Level of Internet penetration rate is constantly increasing and it reached 24% in 2006. The latest survey shows that Internet penetration rate in Montenegro in 2007 reached 40%.

Table 5.26: Internet subscribers in the northern sub region

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>2005 Total</th>
<th>ISDN15</th>
<th>ADSL16</th>
<th>2006 Total</th>
<th>ISDN2</th>
<th>ADSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>41</td>
<td>41</td>
<td>0</td>
<td>46</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Berane</td>
<td>197</td>
<td>186</td>
<td>11</td>
<td>324</td>
<td>215</td>
<td>109</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>157</td>
<td>142</td>
<td>15</td>
<td>251</td>
<td>164</td>
<td>87</td>
</tr>
<tr>
<td>Savnik</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Kolasin</td>
<td>93</td>
<td>84</td>
<td>9</td>
<td>128</td>
<td>81</td>
<td>47</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>40</td>
<td>40</td>
<td>0</td>
<td>78</td>
<td>61</td>
<td>17</td>
</tr>
<tr>
<td>Plav</td>
<td>60</td>
<td>60</td>
<td>0</td>
<td>133</td>
<td>87</td>
<td>46</td>
</tr>
<tr>
<td>Pluzine</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Rozaje</td>
<td>96</td>
<td>93</td>
<td>3</td>
<td>167</td>
<td>92</td>
<td>75</td>
</tr>
<tr>
<td>Zabljak</td>
<td>45</td>
<td>40</td>
<td>5</td>
<td>87</td>
<td>55</td>
<td>32</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>111</td>
<td>96</td>
<td>15</td>
<td>185</td>
<td>111</td>
<td>74</td>
</tr>
</tbody>
</table>

Total number of subscribers from the northern sub region: 856 797 59 1418 930 488

Niksic: 356 314 42 714 354 360

Danilovgrad: 103 95 8 216 116 100

Total number of subscribers from the northern region: 1315 409 50 2348 470 460

Source: Agency for telecommunication and postal services

Indicators related to level of Internet subscribers from the northern region shows that number of ADSL

15 ISDN-Integrated Services Digital Network
16 ADSL-Asymmetric Digital Subscriber Line
subscribers increased in 2005 and 2006. Based on that, municipalities with the highest level of Internet subscribers are Niksic, Bijelo Polje and Berane. One of the basic reasons for the future better level of Internet users and subscribers are based on investment in infrastructure as well as better level of information literacy on the north and better access to modern technologies, through low prices of computers and equipment.

5.8. EDUCATION SYSTEM

The education system in the northern region is divided into three segments: compulsory education, secondary education and university education.

Compulsory education includes primary school, which children start when they are 6 years old, and remain there until they are 15 years old (adding up to 9 years compulsory education).

Secondary education is 3 or 4 years depending on a school category. In some secondary schools children start to attend when they are 15 and finish when they are 18 or 19 years old. This also depends on what school category they attend.

The next table shows the number of primary and secondary schools in Montenegro's northern region.

<table>
<thead>
<tr>
<th>City</th>
<th>Primary school</th>
<th>Number of classes</th>
<th>Secondary school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>2</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Berane</td>
<td>13</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>17</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>Zabljak</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Kolasin</td>
<td>5</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>3</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Plav</td>
<td>3</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Pluzine</td>
<td>3</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>14</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>Rozaje</td>
<td>10</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Savnik</td>
<td>3</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total in the northern sub-region</strong></td>
<td><strong>75</strong></td>
<td><strong>187</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>4</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Niksic</td>
<td>22</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total in the northern region</strong></td>
<td><strong>101</strong></td>
<td><strong>223</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

Source: http://www.skole.cg.yu

In the northern sub region there are 75 primary schools with 187 classes and 23 secondary schools. In Niksic and Danilovgrad there are 26 primary schools with 36 classes and 5 secondary schools. The total number of primary and secondary schools in the northern region is 101 with 223 classes combined, while total number of secondary schools in this region is 23.
Table 5.28: Number of primary and secondary schools, pupils and teachers in the North region

<table>
<thead>
<tr>
<th>Town</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>- teachers</th>
<th>Number of secondary schools 2006/2007</th>
<th>- pupils</th>
<th>- teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>14</td>
<td>626</td>
<td>60</td>
<td>1</td>
<td>237</td>
<td>16</td>
</tr>
<tr>
<td>Berane</td>
<td>46</td>
<td>4,771</td>
<td>344</td>
<td>4</td>
<td>2,828</td>
<td>197</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>64</td>
<td>6,232</td>
<td>471</td>
<td>3</td>
<td>2,125</td>
<td>161</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>15</td>
<td>2,007</td>
<td>136</td>
<td>1</td>
<td>438</td>
<td>27</td>
</tr>
<tr>
<td>Zabljak</td>
<td>6</td>
<td>391</td>
<td>38</td>
<td>1</td>
<td>195</td>
<td>19</td>
</tr>
<tr>
<td>Kolasin</td>
<td>17</td>
<td>1,032</td>
<td>108</td>
<td>1</td>
<td>293</td>
<td>27</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>12</td>
<td>1,147</td>
<td>79</td>
<td>1</td>
<td>401</td>
<td>28</td>
</tr>
<tr>
<td>Niksic</td>
<td>47</td>
<td>8,854</td>
<td>620</td>
<td>4</td>
<td>3,534</td>
<td>224</td>
</tr>
</tbody>
</table>

17 All primary schools with all classes
### SOCIO ECONOMIC ANALYSIS OF THE NORTHERN REGION OF MONTENEGRO

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>1,880</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- teachers</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Number of secondary schools 2006/2007</td>
<td>- pupils</td>
<td>596</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- teachers</td>
<td>49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>336</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- teachers</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Number of secondary schools 2006/2007</td>
<td>- pupils</td>
<td>142</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- teachers</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>3,426</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- teachers</td>
<td></td>
<td>272</td>
</tr>
<tr>
<td></td>
<td>Number of secondary schools 2006/2007</td>
<td>- pupils</td>
<td>1,489</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- teachers</td>
<td>113</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>3,699</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- teachers</td>
<td></td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>Number of secondary schools 2006/2007</td>
<td>- pupils</td>
<td>1,186</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- teachers</td>
<td>91</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of primary schools 2006/2007</th>
<th>- pupils</th>
<th>211</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- teachers</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Number of secondary schools 2006/2007</td>
<td>- pupils</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- teachers</td>
<td>10</td>
</tr>
</tbody>
</table>

*Source: Monstat, www.monstat.cg.yu*

In Niksic there is a Labor University whose role is to educate adults who wish to finish primary school or to assist in the training people for certain jobs. This means that addition schooling and training is included in the education system.

Higher education is provided at the universities and has no age barriers. Within the University of Montenegro, in Niksic there is a faculty of philosophy and a department of the law faculty. In Bijelo Polje there is a faculty of economics and a faculty of agriculture. There are several departments in the Faculty of Philosophy: philosophy and sociology, Serbian language and literature, Russian language and literature, English language and literature, Italian language and literature, the Faculty of History and geography and the Faculty of Physical culture. A high school of medicine has been founded in Berane.

In order to further help faculty improve research and apply knowledge, several specialized institutions have been organized and normatively arranged in the Faculty of Philosophy. Those institutions are: the Institute for Philosophy and Sociology, the Institute for Language and Literature and the Institute for Geography.

Besides these specific institutions for education there are also special institutions. The next table shows these institutions.
Table 5.29: Specific institutions in The North region of Montenegro

<table>
<thead>
<tr>
<th>City</th>
<th>Institutions</th>
<th>Main aim of trainings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>Training centre</td>
<td>Wood processing training course</td>
</tr>
<tr>
<td>Niksic</td>
<td>Primary school “Radoje Cizmovic”</td>
<td>Roma education</td>
</tr>
</tbody>
</table>

Source: The Ministry of Education and Science

This table shows that in the northern region there is only one school for educating Roma, and there are no schools for children with special needs. The Center for Staff Training in Berane organizes courses in wood processing.

5.9. SOCIAL SYSTEM

Health insurance in the northern region has three levels:

- Public hospitals (general and specialized)
- Medical centres
- Health service stations

The next table shows a list of medical centers in the northern region of Montenegro.

Table 5.30: Medical centers in the North region of Montenegro

<table>
<thead>
<tr>
<th>City</th>
<th>Public medical centers</th>
<th>Capacity of the hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Medical centre</td>
</tr>
<tr>
<td></td>
<td>Commonly</td>
<td>Special</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Berane</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Kolasin</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plav</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pluzine</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Rožaje</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Savnik</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Zabljak</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Niksic</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>


The region has only 4 hospitals, which are found in the region’s biggest municipalities – Niksic, Bijelo Polje, Pljevlja and Berane. Other towns have medical centers excluding Zabljak and Savnik, which only have health service centers. There is one special clinic for pulmonary disease in Niksic.

Following table shows private health institutions by medical services type.
Table 5.31: Number of private health institutions by medical services type

<table>
<thead>
<tr>
<th>Medical services</th>
<th>Berane</th>
<th>Bijelo Polje</th>
<th>Pljevlja</th>
<th>Rozaje</th>
<th>Total the north Sub-region</th>
<th>Danilovgrad</th>
<th>Niksic</th>
<th>Total the north region</th>
</tr>
</thead>
<tbody>
<tr>
<td>General stomatology</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General stomatology with dentist laboratory</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist laboratory and oral surgery</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatrician with biochemical laboratory</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultrasound diagnostics</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biochemical laboratory</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gynecology</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>11</td>
<td>24</td>
</tr>
</tbody>
</table>


In six of the northern region's municipalities there are 22 private hospitals. The majority of private hospitals are in Niksic (11) while Pljevlja and Danilovgrad have only one private clinic.

5.9.1. SOCIAL SERVICES

Social protection in the northern region is being provided through existing institutions. There are 10 centers involved in social and child protection. They are financed by the state budget. The next table shows data for the number of social work centers by municipality.

Table 5.32: Social work centers in the northern region

<table>
<thead>
<tr>
<th>Center</th>
<th>Municipalities included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niksic</td>
<td>Niksic</td>
</tr>
<tr>
<td></td>
<td>Savnik</td>
</tr>
<tr>
<td></td>
<td>Pluzine</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Pljevlja</td>
</tr>
<tr>
<td></td>
<td>Zabljak</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>Bijelo Polje</td>
</tr>
<tr>
<td></td>
<td>Mojkovac</td>
</tr>
<tr>
<td>Berane</td>
<td>Berane</td>
</tr>
<tr>
<td></td>
<td>Andrijevica</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Rozaje</td>
</tr>
<tr>
<td>Plav</td>
<td>Plav</td>
</tr>
<tr>
<td>Podgorica</td>
<td>Kolasin</td>
</tr>
<tr>
<td></td>
<td>Danilovgrad</td>
</tr>
</tbody>
</table>

Source: http://www.gom.cg.yu

There are five social work centers: The center in Niksic for the municipalities of Niksic, Savnik and Pluzine; the center in Pljevlja for the municipalities of Pljevlja and Zabljak; the center in Bijelo Polje for the municipalities of Bijelo Polje and Mojkovac; the center in Berane for the municipalities of Berane and Andrijevica; the center in Rozaje; and Social Work Center of Plav. The municipalities of Danilovgrad and Kolasin are under the social work center in Podgorica.
Five collective accommodation centers for refugees were built in the municipalities of Kolasin, Niksic, Berane, Plav and Rozaje as of 1999. The main purpose of these centers was to accommodate refugees and internally displaced persons as well as to care for socially endangered people.

5.9.2. EMPLOYMENT CENTERS AND AGENCIES

Within Employment Agency of Montenegro there are four Labor offices: Niksic, Berane, Pljevlja and Bijelo Polje. There are even some offices with the Agency’s within certain municipalities. Following table shows schedule of Labor bureaus and offices within Agency by northern region’s municipalities.

Table 5.33: Labor bureaus and offices of the Agency in northern region’s municipalities

<table>
<thead>
<tr>
<th>Employment Agency of Montenegro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor bureaus</td>
</tr>
<tr>
<td>Niksic</td>
</tr>
<tr>
<td>Bijelo Polje</td>
</tr>
<tr>
<td>Pljevlja</td>
</tr>
<tr>
<td>Berane</td>
</tr>
<tr>
<td>Offices</td>
</tr>
<tr>
<td>Savnik</td>
</tr>
<tr>
<td>Pluzine</td>
</tr>
<tr>
<td>Zabljak</td>
</tr>
<tr>
<td>Mojkovac</td>
</tr>
<tr>
<td>Andrijevica</td>
</tr>
<tr>
<td>Rozaje</td>
</tr>
<tr>
<td>Plav</td>
</tr>
<tr>
<td>Kolasin</td>
</tr>
<tr>
<td>Danilovgrad</td>
</tr>
</tbody>
</table>

Source: Statistical Yearbook, 2006


5.10 SPORT AND RECREATION

The northern region has a relatively developed sports infrastructure. In several municipalities the infrastructure could be significantly improvement for sports clubs as well as individuals interested in sport and recreation. The current sports infrastructure in the region has not been utilized properly.

In the thirteen municipalities there are seven stadiums, comprised of five city stadiums and two minor stadiums. Only five municipalities have football stadiums: Danilovgrad, Niksic, Berane, Pljevlja and Rozaje. All these stadiums, with the exception of FC Celik in Niksic, also have tracks for athletics.

Minor sports stadiums also exist in the municipalities of Niksic and Pljevlja. The stadium in Niksic has a marked court for handball while the stadium in Pljevlja has a marked court for handball, volleyball and basketball.

The municipality of Niksic has tennis courts, including one concrete court and five clay courts. The city also has a martial arts hall designed to accommodate the various martial arts disciplines.

There are four sport centers in the municipalities of Niksic, Berane, Bijelo Polje and Kolasin. The sport centre in Niksic a big gymnasium and pool. The gymnasium has marked courts for handball, basketball
and volleyball while the pool hall has one pool designated for competition and another to be used for recreation. The sport center in Berane includes a football field, an athletics track and an outdoor courts complex. A handball, two basketball, two tennis courts and a volleyball court are parts of the open courts. The sport center in Bijelo Polje includes a football court and an athletics track, as well as an outdoor courts complex, which includes a handball and basketball court. The sport center in Kolasin includes both outdoor and indoor courts. The outdoor part of the complex includes a football field and handball courts, as well as four earth ground tennis courts. There is a gymnasium in the outdoor part of the complex, including handball, basketball and volleyball courts.

There are six sport halls in the region, which are in the municipalities of Niksic, Bijelo Polje, Mojkovac, Berane, Pljevlja and Rozaje. The sports halls in the municipalities of Niksic and Berane have marked courts for volleyball, handball and basketball. The sports hall in Mojkovac also has three outdoor courts, one for basketball and two for handball. The hall in Pljevlja has a marked court for handball, basketball, volleyball and tennis. Beside that, a small hall is designed for gymnastics and wrestling.

Thirteen municipalities in the northern region of Montenegro have an adequate sports infrastructure when it comes to the number of facilities. However, the quality of these facilities is another issue. The quality of the facilities is not satisfactory in most cases, and is in need of investment. Privatization of sports clubs is one effective method of increasing investment in sport. Privatization would at least put additional pressure on the management of the infrastructure for efficient maintenance and investments.

Table 5.34: Sport and recreation in north sub region (2007)

<table>
<thead>
<tr>
<th>Community</th>
<th>Sport playgrounds</th>
<th>Sport halls</th>
</tr>
</thead>
<tbody>
<tr>
<td>BERANE</td>
<td>Sport center</td>
<td>Sport hall</td>
</tr>
<tr>
<td></td>
<td>Owner: Municipality of Berane</td>
<td>Owner: Municipality of Berane</td>
</tr>
<tr>
<td></td>
<td>User: JU “Sport center”</td>
<td>User: Municipality of Berane</td>
</tr>
<tr>
<td></td>
<td>Purpose: to host sport competitions and recreation</td>
<td>Purpose: to host sport competitions and recreation</td>
</tr>
<tr>
<td></td>
<td>Center includes a sport stadium and an outdoor courts complex</td>
<td>Area: 2900 m²</td>
</tr>
<tr>
<td></td>
<td>Football court dimensions: 106x68m</td>
<td>Court dimensions: 44x28m</td>
</tr>
<tr>
<td></td>
<td>Athletic track around the court is 400m long with 6 tracks, plus 2 more for sprinting.</td>
<td>Marked courts for volleyball, handball and basketball</td>
</tr>
<tr>
<td></td>
<td>Two-sided auditorium with dimensions of 40x80m and an 11,000-seat capacity.</td>
<td>Seat capacity: from 1200 to 1500</td>
</tr>
<tr>
<td></td>
<td>Outdoor courts include: additional football court 90x45m, handball court 44x22m, two basketball courts 32x20m, volleyball court and two tennis court 36x20m</td>
<td>Valued in 1996 at about €800,000</td>
</tr>
<tr>
<td></td>
<td>Basketball court has a 1500-seat capacity, while other courts have a 1000-seat capacity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic value in 1996. Was around €2.3 millions</td>
<td></td>
</tr>
</tbody>
</table>
### Community | Sport playgrounds | Sport halls |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIJELO POLJE</strong></td>
<td><strong>Sport center, Nikoljac</strong>&lt;br&gt;Owner: Municipality of Bijelo Polje&lt;br&gt;User: JU „Center for sports and recreation”&lt;br&gt;Used for sports competitions and recreation. Built in 1983. Center includes a sports stadium and outdoor courts complex Football stadium dimensions: 106x68m and athletics track has 6 lanes, 400m long. One side has a 3000-seat capacity. The outdoor courts complex includes two handball courts with dimensions of 44x23m and a basketball court with dimensions of 32x20m In 1996 was valued at around €2 million.</td>
<td><strong>Sport hall, Nikoljac</strong></td>
</tr>
<tr>
<td><strong>KOLASIN</strong></td>
<td><strong>Sport center</strong>&lt;br&gt;Owner: Municipality of Kolasin Complex includes more outdoor and indoor facilities. Football field dimensions: 100x56m, handball 44x25m while 4 earth ground tennis courts have dimension 46x36m Big pyramid-shaped hall with an area of 4200m². Platform hall dimension: 42x25m dimension Used for handball, basketball and volleyball Has a 1200-seat with more than 400 seats that are very high up. Basic value of project was about €1.7 million while basic value of location, including the outdoor courts was about €1 million.</td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Sport playgrounds</td>
<td>Sport halls</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MOJKOVAC</td>
<td><strong>Sport hall</strong>&lt;br&gt;Owner: Municipality of Mojkovac&lt;br&gt;User: High school center of Mojkovac&lt;br&gt;Built in 1982.&lt;br&gt;Area: 2000m²&lt;br&gt;Platform dimensions: 44.5x26m with marked courts for handball, basketball and volleyball.&lt;br&gt;Single auditorium with dimension of 40x80, with a capacity for 700 places&lt;br&gt;There are three outdoor courts: basketball with dimensions of 32x18m and two handballs with, dimensions of 42x23m&lt;br&gt;Value in 1996 was approximately €4.5 million</td>
<td></td>
</tr>
<tr>
<td>PLJEVLJA</td>
<td><strong>Urban stadium</strong>&lt;br&gt;Owner: Municipality of Pljevlja&lt;br&gt;User: JU, Center for sports and recreation”&lt;br&gt;Purpose: Sports competitions and recreation&lt;br&gt;Built in 1985.&lt;br&gt;Football court dimensions 106x68m&lt;br&gt;The athletics has is 400m long and has tracks&lt;br&gt;Additional football court dimensions: 70x52m&lt;br&gt;Three sides seats have a capacity for 6500&lt;br&gt;Estimated value in 1996 was around €3.1 million&lt;br&gt;Minor sports stadium&lt;br&gt;Owner: Municipality of Pljevlja&lt;br&gt;User: JU, Center for sport and recreation”&lt;br&gt;Purpose: Sports competitions and recreations&lt;br&gt;Built in 1985.&lt;br&gt;Stadium dimensions: 144x29m dimension, including courts for volleyball (30x17m), handball (46x23m), and basketball (32x18m)&lt;br&gt;Capacity: 2,350 seats&lt;br&gt;Estimated value in 1996 was about €600 thousand.</td>
<td><strong>Sport halls</strong>&lt;br&gt;Owner: Municipality of Pljevlja&lt;br&gt;Purpose: Sports competitions and recreation&lt;br&gt;Hall has an area of 5600m²&lt;br&gt;Hall used for sports competitions is 1900m² and 500m² for recreational sports.&lt;br&gt;Court with 45x27m dimensions is designed for handball, volleyball, basketball, tennis and other sports&lt;br&gt;Three-sided auditorium has 1600 seats with an additional 500 telescope seats&lt;br&gt;Small hall with of 24x12m designed for gymnastic and wrestling&lt;br&gt;Estimated value in 1996 was €2.5 million</td>
</tr>
</tbody>
</table>


### ROZAJE

<table>
<thead>
<tr>
<th>Community</th>
<th>Sport playgrounds</th>
<th>Sport halls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban stadium</td>
<td>Sports hall</td>
</tr>
<tr>
<td></td>
<td>Owner: Municipality of Rozaje</td>
<td>Build in 2006</td>
</tr>
<tr>
<td></td>
<td>Users: FC „Ibar“ and AC „Bisernica“</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Purpose: Football games and athletics competitions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Built in 1983.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Football court has 106x68m dimensions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Athletic track is 400m long with 4 tracks and 2 more for rout. Around the court there is space for other athletics disciplines.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>South scaffolds' dimensions are 40x80m and provide a capacity of approx. 500 seats, while the east side has unfinished scaffolds with an additional 1,000 standing places</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional football field dimensions: 70x50m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Estimated value in 1996 was approximately €700 thousand.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Sport Facilities in Montenegro

### DANILOVGRAD

<table>
<thead>
<tr>
<th>Community</th>
<th>Sports playgrounds</th>
<th>Sports halls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban playground „Braca Velasevic“</td>
<td>Sport hall</td>
</tr>
<tr>
<td></td>
<td>Owner: Municipality of Danilovgrad</td>
<td>Owner and user: Municipality of Danilovgrad</td>
</tr>
<tr>
<td></td>
<td>User FC „Iskra“</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Purpose: football matches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Football field dimensions: 106x70m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional space for an athletics track with 8 lanes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacity of 3000 seats</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Estimated value was around €1 million (in 1996) due to location.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Area 1536m²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marked courts for volleyball, handball and basketball</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacity of 800 seats</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Built in 1975.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic economic value: €600 thousand.</td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Sports playgrounds</td>
<td>Sports halls</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| **NIKSIC** | Urban stadium  
Owner: Municipality of Niksic  
User: FC „Sutjeska”  
Purpose: Football matches and athletics competitions  
Playground dimensions: 106x68m  
Athletic track is 400m long with 6 tracks plus others athletics pits  
Capacity: 9000, west scaffold - 3000 (6 to 19 rows portico) and remaining three with about 6000 places total.  
Estimated value was about €3.5 million | Sport center „Niksic”  
Owner: Municipality of Niksic  
User: JU SC „Niksic”  
Multi-purpose sports facility  
Built in 1996  
Total area of 18.500m². It consists of a big hall, pool and connecting area. The big hall is 4900m² and the grown has 66x35m dimensions, with marked courts for handball, basketball and volleyball.  
Capacity of auditorium is 2500 seats. The pool is 3900m².  
Competitive pool has 50x21x2m dimensions, and a recreation pool with 12.5x10x1.6m dimensions.  
Capacity:1300 seats.  
Basic economic value was about €7.5 million |
| | Stadium FC „Celik”  
Municipality of Niksic  
User: FC „Celik”  
Purpose: Football match  
Built in 1990.  
Court dimensions: 107x69m  
Capacity of 1800 seats  
Basic value was about €1.2 million. | |
| | Minor sports stadium  
Owner: Municipality of Niksic  
User: Niksic community  
Purpose: Used for competition and recreation.  
Built in 1963.  
Includes a concrete pit with 43x26m dimensions and marked handball court  
Capacity 2500 seats  
Basic value: €3.8 million. | |
| | Tennis court TK „Niksic”  
Owner: Municipality of Niksic  
User: TK „Niksic”  
Purpose: Used for competition and recreation | |
| | Built in 1994.  
Includes six courts, including one concrete court.  
Capacity: 200 seats  
In 1996 valued at about €3.5 millions | |
| | Martial arts hall  
Purpose: Martial arts competitions and training  
Area: 2200m²  
Hall dimensions are 24x18m while the pit itself is 23,80x13,75m  
Capacity: 500 seats  
Basic value was €600 thousand. | |

*Source: Sport Facilities in Montenegro*
The northern region of Montenegro is a real pearl in its potential for winter tourism and winter sports development. The mountains, forests, lakes, potential tracks and other facilities necessary for winter tourism, present a unique opportunity for this region. However, currently investment in new tourism infrastructure is lacking. Privatization of the former Ski center Bjelasica and his reactivation are swing in this process. The assumption is that after the success of this center there will be more interest in creating new centers in Mojkovac, on mountain Bjelasica.

There are five funiculars in this region with an overall length of 5.6 km. They are located in the following municipalities: Berane (Lokve 0.3 km), Kolasin (Jezerine 1.4 km) and Zabljak (Savin kuk, two funiculars each 1.4 km long and Stuoc with a funicular 1.2 km long).

The region also has ten ski lifts, 7.3 km long. The ski lifts are located in Berane (Lokve 0.3 km), Kolasin (Jezerine and two ski lifts, each 0.7 km), Niksic (Vucje with two lifts, each 1 km), Pljevlja (Kosanica 0.4 km), Rozaje (Turjak with two lifts, each 0.8 km) and Zabljak (two ski lifts on Savin kuk, each 0.8 km long). In Zabljak there is also a cross-country skiing track.

Table 5.36: Winter ski centers in 2007

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Ski center and infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>Lokve - funicular 0.2 km, ski lift 0.3 km</td>
</tr>
<tr>
<td>Kolasin</td>
<td>Jezerine - funicular 1.4 km, 2 ski lifts 0.7 km</td>
</tr>
<tr>
<td>Niksic</td>
<td>Vucje - 2 ski lifts 1 km</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Kosanica - ski center 0.4 km</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Turjak - 2 ski lifts, 0.8 km</td>
</tr>
<tr>
<td>Zabljak</td>
<td>Savin kuk- 2 funicular 1.4 km, 2 ski lifts 0.8 km</td>
</tr>
<tr>
<td></td>
<td>Stuoc - funicular 1.2 km</td>
</tr>
<tr>
<td></td>
<td>Area for cross-country skiing</td>
</tr>
</tbody>
</table>

Source: Ministry of Culture, Sport and Media, Sports objects in Montenegro, 2008.

Beside this infrastructure, in the northern region, as in all of Montenegro, there are sport courts and gymnasiums in elementary and high schools. In some cases they can be used by the public for a fee.

Table 5.37: Number of schools with halls and school courts

<table>
<thead>
<tr>
<th>Community</th>
<th>Number of elementary and high schools with gymnasiums and sport courts</th>
<th>Number of schools with only sport courts</th>
<th>Number of schools only a gymnasium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Berane</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>5</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Kolasin</td>
<td>1</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>1</td>
<td>-</td>
<td>-1</td>
</tr>
<tr>
<td>Plav</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>8</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Pluzine</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rozaje</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Savnik</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Zabljak</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Niksic</td>
<td>13</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

Ministry of Culture, Sport and Media, Sport Facilities in Montenegro, 2008

Elementary and high schools in the northern region can be put into three categories depending on their
sports facilities. In the first are schools that have a complete sport infrastructure, including courts and gymnasiums. In the second category are schools that only have courts and the third category includes those schools that only have gymnasia. There are forty-one schools in the first category, thirteen of which are in Niksic, eight in Pljevlja, five in Bjelo Polje, three in Berane, two in Rozaje, Plav, Savnik and Kolasin, as well as one school in Kolasin, Mojkovac, Pluzine and Andrijevica. There are twenty-four schools that only have courts. There are three in Bjelo Polje, five in Berane, three in Niksic, Pljevlja and Kolasin, and in one school in Rozaje, Plav and Savnik. The total number of schools with only a gymnasium is four, including two in Berane and one in Rozaje and Mojkovac.

From the above data one can conclude that in bigger northern municipalities the sport infrastructure is in better condition while in smaller municipalities the sport infrastructure is in worse condition or does not exist at all.
6. ECONOMY AND BUSINESS

6.1. MACROECONOMIC INDICATORS

In 2006 GDP value achieved in the northern sub region was €248,04 millions which is increase over 60% comparing to 2001. The northern sub region GDP is 12.4% of total GDP of Montenegro which is quite low values having in mind that in the northern sub region lives 30.8% of total number of inhabitants in Montenegro. If we observe all 13 municipalities GDP grows over 100% having in mind that GDP in municipality of Niksic is €235,18 millions and for 5.2% is lower that GDP achieved in total northern sub region. GDP in Danilovgrad is higher than GDP achieved in majority of northern region’s municipalities.

GDP per capita in the northern sub region in 2006 was €1.289,2 or 40.2% of national GDP per capita. Including two municipalities of Niksic and Danilovgrad GDP per capita is €1.777,1 and that is 55% of national GDP per capita. These results shows that northern sub region mainly lack for the remaining part of Montenegro.

World bank has ranked in 2006 countries in the world by GNP per capita (which is slightly wider concept than GDP\(^{18}\) on low income countries (BGNP < €721), countries with lower medium income (€721 < GNP < €2.863), countries with higher medium income (€2.863 < GNP < €8.852), and high income countries (GNP> €8.852).

<table>
<thead>
<tr>
<th>Municipality</th>
<th>BDP u € millions</th>
<th>Population during mid year</th>
<th>GDO per capita in €</th>
<th>The northern regions’ GDP share</th>
<th>Share in GDO of Montenegro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>3,44</td>
<td>5,588</td>
<td>616,3</td>
<td>1,4%</td>
<td>0,2%</td>
</tr>
<tr>
<td>Berane</td>
<td>33,53</td>
<td>34,884</td>
<td>961,3</td>
<td>13,5%</td>
<td>1,7%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>50,59</td>
<td>49,78</td>
<td>1016,3</td>
<td>20,4%</td>
<td>2,5%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>6,65</td>
<td>4,078</td>
<td>1629,8</td>
<td>2,7%</td>
<td>0,3%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>12,2</td>
<td>9,537</td>
<td>1279,1</td>
<td>4,9%</td>
<td>0,6%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>7,86</td>
<td>9,746</td>
<td>806,8</td>
<td>3,2%</td>
<td>0,4%</td>
</tr>
<tr>
<td>Plav</td>
<td>5,73</td>
<td>13,963</td>
<td>410,6</td>
<td>2,3%</td>
<td>0,3%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>19,12</td>
<td>4,064</td>
<td>4705,8</td>
<td>7,7%</td>
<td>1,0%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>92,31</td>
<td>34,814</td>
<td>2651,7</td>
<td>37,2%</td>
<td>4,6%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>15,19</td>
<td>23,283</td>
<td>652,2</td>
<td>6,1%</td>
<td>0,8%</td>
</tr>
<tr>
<td>Savnik</td>
<td>1,4</td>
<td>2,766</td>
<td>507,9</td>
<td>0,6%</td>
<td>0,1%</td>
</tr>
<tr>
<td><strong>The northern sub region</strong></td>
<td><strong>248,04</strong></td>
<td><strong>192.403</strong></td>
<td><strong>1289,2</strong></td>
<td><strong>100,0%</strong></td>
<td><strong>12,4%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>21,72</td>
<td>16,48</td>
<td>1318,1</td>
<td>8,8%</td>
<td>1,1%</td>
</tr>
<tr>
<td>Niksic</td>
<td>235,18</td>
<td>75,246</td>
<td>3125,5</td>
<td>94,8%</td>
<td>11,7%</td>
</tr>
<tr>
<td><strong>The northern region</strong></td>
<td><strong>504,94</strong></td>
<td><strong>284.129</strong></td>
<td><strong>1777,1</strong></td>
<td><strong>203,6%</strong></td>
<td><strong>25,2%</strong></td>
</tr>
<tr>
<td><strong>Montenegro</strong></td>
<td><strong>2003,5</strong></td>
<td><strong>624.24</strong></td>
<td><strong>3209,5</strong></td>
<td><strong>807,7%</strong></td>
<td><strong>100,0%</strong></td>
</tr>
</tbody>
</table>

Sources: MONSTAT; Ministry of Finance, ISSP estimations

For this analysis need we have used GDP per capita being that income achieved abroad by residents in 2006 is about €96 per capita and therefore situation wouldn’t be significantly different. According to this categorization Montenegro belongs to the group of higher-medium income while northern region would be categorized as lower medium income region. Nevertheless if we observe municipalities individually Andrijevica Plav, Rozaje and Savnik can be observed as low income level municipalities. Pluzine belongs to higher medium income category group while remaining municipalities of the northern sub region belongs to lower medium income groups. Municipality of Danilovgrad belongs to lower medium income level group while Niksic belongs to higher medium income level group.

\(^{18}\) Includes income made by residents abroad.
In total GDP structure of the northern sub region the highest share goes to three biggest municipaliti-
es Pljevlja, Bijelo Polje and Berane. GDP of Pljevlja makes about 40% of the northern sub region’s GDP (37.2%), Bijelo Polje makes 20.4% of total sub region’s GDP while Berane makes 13.5% of total northern sub region’s GDP.

Data’s about GDP structure on municipality level by sectors don’t exist. Only available data’s concerning sectors structure by municipalities are data’s about GDP by municipalities which are significantly different than GDP being that GDP underestimates service sector.

Graph 6.1.: Domestic product structure of the northern sub region by sectors (2001)

Source: MONSTAT; Statistical Yearbook, 2003

According to 2001 data’s dominant share in domestic product of the northern sub region belongs to indu-
stry 54.2% (see graph 6.1), services makes 32.7% while agriculture makes 9.7% and construction 3.4%.

Table 6.2: Domestic product structure by sectors (2001)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Agriculture, hunting and forestry</th>
<th>Industry</th>
<th>Construction</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>30,3</td>
<td>33,8</td>
<td>0,0</td>
<td>35,9</td>
</tr>
<tr>
<td>Berane</td>
<td>5,9</td>
<td>48,3</td>
<td>3,2</td>
<td>42,6</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>6,7</td>
<td>34,9</td>
<td>5,0</td>
<td>53,4</td>
</tr>
<tr>
<td>Zabljak</td>
<td>15,5</td>
<td>37,8</td>
<td>0,0</td>
<td>46,7</td>
</tr>
<tr>
<td>Kolasin</td>
<td>13,2</td>
<td>36,3</td>
<td>0,3</td>
<td>50,2</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>20,1</td>
<td>41,3</td>
<td>0,0</td>
<td>38,6</td>
</tr>
<tr>
<td>Plav</td>
<td>32,0</td>
<td>16,7</td>
<td>0,0</td>
<td>51,3</td>
</tr>
<tr>
<td>Pluzine</td>
<td>3,9</td>
<td>85,7</td>
<td>0,0</td>
<td>10,3</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>7,5</td>
<td>70,6</td>
<td>5,3</td>
<td>16,7</td>
</tr>
<tr>
<td>Rozaje</td>
<td>23,4</td>
<td>41,6</td>
<td>0,1</td>
<td>34,9</td>
</tr>
<tr>
<td>Savnik</td>
<td>27,1</td>
<td>14,9</td>
<td>0,0</td>
<td>58,1</td>
</tr>
<tr>
<td>The northern sub region</td>
<td>9,7</td>
<td>54,1</td>
<td>3,4</td>
<td>32,7</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>3,1</td>
<td>53,7</td>
<td>10,0</td>
<td>33,3</td>
</tr>
<tr>
<td>Niksic</td>
<td>0,8</td>
<td>71,7</td>
<td>5,8</td>
<td>21,7</td>
</tr>
<tr>
<td>The northern region</td>
<td>5,3</td>
<td>62,3</td>
<td>4,8</td>
<td>27,6</td>
</tr>
<tr>
<td>Montenegro</td>
<td>3,1</td>
<td>34,7</td>
<td>5,2</td>
<td>56,9</td>
</tr>
</tbody>
</table>

Source: MONSTAT; Statistical Yearbook, 2003

Observed by municipalities in Municipality of Pluzine share of industry in domestic product is 85.7% what is understandable having in mind that HP Piva is in this municipality. Share of industry in Pljevlja is also high and it is 70.6% of total domestic product achieved in municipality. Agriculture has the highest share in domestic product in Plav and Andrijevica over 30% while significant share of agriculture is also in Mojkovac, Rozaje and Savnik.
Services have high share in domestic product of Kolasin, Bijelo Polje, Savnik and Plav over 50%, while construction is the most significant in domestic product of Danilovgrad (10%).

6.2. FOREIGN DIRECT INVESTMENTS

The northern region of Montenegro including Municipalities of Niksic and Danilovgrad is interested for foreign investments but not in measure like other Montenegrin regions. One of the first FDI’s in Montenegro was Interbrew’s investment in Niksic brewery. Municipality of Niksic is also very interesting for investments because of Ironworks factory and Bauxite mine. According to available data’s FDI in 2000-2007 period in Niksic only were almost €24 millions. Municipality of Kolasin is also interested to investors as because of tourism (ski centres „Jezerine” and „Bjelasica”) as because of wood industry. In Dark coal mine in Berane was invested €1.5 millions while in Mojkovac Swiss BTI bought „4th November” factory.

Table 6.3: FDI (privatization process)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Year</th>
<th>Company</th>
<th>Sector</th>
<th>Buyer</th>
<th>Origin</th>
<th>Value in u €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berane</td>
<td>2007</td>
<td>Dark coal mine, Berane</td>
<td>Mining</td>
<td>Balkan energy</td>
<td>Greece</td>
<td>€1,5 millions</td>
</tr>
<tr>
<td>Kolasin</td>
<td>2003</td>
<td>Ski Centre Bjelasica, Kolasin</td>
<td>Tourism</td>
<td>Beppler&amp;Jacobson Ltd</td>
<td>England</td>
<td>€1,5 millions</td>
</tr>
<tr>
<td>Kolasin</td>
<td>2005</td>
<td>AD Export drvo, Kolašin</td>
<td>Wood industry</td>
<td>Vericop international Ltd., Shrewsburg</td>
<td>England</td>
<td>€80,000</td>
</tr>
<tr>
<td>Kolasin</td>
<td>2007</td>
<td>Ski center Jezerine</td>
<td>Tourism</td>
<td>Beppler&amp;Jacobson</td>
<td>England</td>
<td>€550,000</td>
</tr>
<tr>
<td>Mojkovac 19</td>
<td>2007</td>
<td>4th November</td>
<td>Industry</td>
<td>BT International</td>
<td>Switzerland</td>
<td>€157,600 (€6,3 millions for investments)</td>
</tr>
<tr>
<td>Zabljak</td>
<td>2007</td>
<td>DIP and SPAD Zabljak</td>
<td>Wood industry</td>
<td>Karipidis Bross CO</td>
<td>Greece</td>
<td>€2,97 millions</td>
</tr>
<tr>
<td>Niksic</td>
<td>1997</td>
<td>Trebjesa Brewery</td>
<td>Beverages production</td>
<td>Interbrew</td>
<td>Belgium</td>
<td>€3,0 millions</td>
</tr>
<tr>
<td>Niksic</td>
<td>2000</td>
<td>Cold rolling mill</td>
<td>Metal industry</td>
<td>Tecnhonsteel</td>
<td>Switzerland</td>
<td>€5,35 millions</td>
</tr>
<tr>
<td>Niksic</td>
<td>2006</td>
<td>Ironworks factory Niksic</td>
<td>Industry</td>
<td>MN Specialty</td>
<td>England</td>
<td>€5,2 millions</td>
</tr>
<tr>
<td>Niksic</td>
<td>2005</td>
<td>Bauxite mine</td>
<td>Mining</td>
<td>Salamon Enterprises</td>
<td>Russia</td>
<td>€10 millions</td>
</tr>
</tbody>
</table>

Source: MIPA, Montenegrin Investment Promotion Agency

According to available data’s there were no other investments in northern municipalities. Although, analysis shows that northern region is interesting for investments in mining and industrial production, wood processing and tourism. The northern region can also be interesting destination for some other sector’s investments with natural resources usage such is hydro potential which can be used for electric energy production.

19 In Mojkovac “Vukman Kruscic” and Polja’s confection factory have also been privatized.
6.3 LOCAL GOVERNMENTS FINANCING IN MONTENEGRO

The general state sector in Montenegro is composed by:

- Budget of the Government of the Republic of Montenegro
- Central budget
- Budgets of the three social Funds: Pension and Disability Insurance Fund, Health Insurance Fund and Employment Agency
- Budgets of the Fund for Restitution and Development Fund of the Republic of Montenegro
- Local self-governments budgets (City of Podgorica and 20 municipalities)

Graph: 6.2: Percentage share in the public spending of the general Government sector

Local governments are financed from the following sources of revenues: own revenues (local taxes, fees and compensations), consigned revenues from the central budget (10% of the personal income tax, 50% of the tax on real estate turnover and 30% of the compensations for concession), Equalization Fund, borrowings and loans and revenues from privatization.

According to the Law on Local Governments Financing, own resources of local Governments are the following: 1) municipality tax, 2) inheritance and gift taxes, 3) hazard and entertainment taxes, 4) residence tax, 5) local administrative tax, 6) local communal tax, 7) urban land development fee and urban land arrangement fee, 8) contribution for protection and preferment of environment, 9) revenues from municipality’s properties and revenues from property rights, 10) revenues from company’s and other legal entities belonging to the municipality, 11) fines uttered in offense process as well as detracted property benefit in the same process, 12) utilities concession revenues, 13) revenues of municipality services, organizations and agencies, 14) deposit interest rates, 15) self-contribution revenues introduced for municipalities territory, 16) grants and subsides, 17) other revenues introduced by the Law.

In accordance with the same Law, municipality within its own territory can introduce the following municipality taxes: 1) Surtax on Personal Income Tax, 2) Real Estate Tax, 3) Consumption Tax, 4) Tax on Non-Build Structural Land, 5) Tax on Company or Name.

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20 The crucial change in 2008 compared to the previous years is related to the Law Amending and Supplementing »organic« Law on Budget. Namely, as of January 1st 2008, former extra-budgetary funds (Fund for Pension and Disability Insurance of the Republic, Fund for Health Insurance of the Republic, Employment Agency of Montenegro, Fund for Restitution and Development Fund of the Republic of Montenegro) have become state funds and are included in the budget of the state. Social insurance funds (Fund for Pension and Disability Insurance of the Republic, Fund for Health Insurance of the Republic, Employment Agency of Montenegro) were up to now included in the consolidated balance of public spending and remaining two funds are for the first time included in the balance of public spending.
Consignated revenues are tax and contribution revenues introduced by central government and are divided between central and local level Government. Consignated revenues are:

- revenues from personal income tax
- revenues from real estate turnover
- natural goods concession revenues on concessions given by the Republic

6.3.2. Analysis of Budget Revenues and Expenditures of the Montenegrin Local Governments in the Period January-June 2007

In the period January-June 2007, total budget revenues in sub-region (11 Montenegrin northern municipalities - Andrijevica, Berane, Bijelo Polje, Zabljak, Kolasin, Mojkovac, Plav, Pluzine, Pljevlja, Rozaje and Savnik) amounted to €15.478 million. In the structure of the total revenues of sub-region, local revenues had share of 72%, the share of Equalization Fund was at the level of 15.56% while consignated revenues and subsidies had a share of 11.84% and 0.69%, respectively. Out of total revenues 80.50% were related to the following municipalities: Berane, Bijelo Polje, Kolasin, Pljevlja and Rožaje while the rest of 19.50% were share of the remaining 6 municipalities. These figures suggest that beside developmental differences existing between northern and southern municipalities in Montenegro, certain deviations emerge among municipalities on the north as well. Namely, in the smallest municipalities such are Andrijevica, Zabljak, Mojkovac, Plav, Pluzine and Savnik the level of budget revenues is very low and points out the fact that special attention has to be placed exactly upon these municipalities in the near future. In this context, it is very important not to allow that protectionist measures (greatly inherited from the past) postpone theirs future development.

Within the same period, revenues of the municipalities Niksic and Danilovgrad were €8.031 million and €1.989 million, respectively. In other words, as compared to the total budget revenues of the sub-region, the total budget revenues of municipality of Niksic were at the level of 52%. As far as the region is concerned, total budget revenues in period January-June of 2007 were €25.499 million.

Graph 6.3: Structure of the budget revenues of the sub-region in the first six months of 2007

In the total local revenues of the sub-region, fiscal revenues were €6.86 million (tax, fees, compensations, etc.) and had share of 44.3% while the rest of revenues (€44.73 million) were related to the other local revenues (revenues from the selling of the property, own revenues of the municipalities bodies, grants, borrowings and funds transferred from the previous year). In the structure of fiscal revenues, fees for the use of urban land had the most dominant share (30.55%) while the share of the local communal fees was
at the level of 27.4%. As far as the region is concerned, fiscal revenues in amount of €11.05 million had the share of 58.7%, while other local revenues represented the remaining part of 41.3%.

As for consigned revenues (€1.832 million), the greatest share in the analyzed period was related to the revenues on the basis of the personal income tax (€0.637 million), followed by the revenues on the basis of natural goods concessions (€0.511) and revenues on the basis of the tax on the turnover of the real estate (€0.938 million).

At the end of June 2007, the total amount of revenues that sub-region and region received from the Equalization Fund amounted €2.407 million and €3.047 million, respectively. The greatest share in the allocated funds on this basis had following municipalities: Bijelo Polje (22.4%), Berane (16.8%), Danilovgrad (10.5%), Niksic (10.5%) and Rozaje (9.6%). Together, these municipalities had the total share of 69.7% in the revenues from the Equalization Fund. For the some of municipalities (Savnik, Andrijevica, Mojkovac, Berane, Bijelo Polje and Plav) revenue from Equalization Fund represents the most certain source of financing. Budget Law of the Republic for 2007 envisaged €1.6 million of conditional subsidies for the realization of the investments projects in the area of communal infrastructure. In accordance with the decisions of the Government, these funds were related to the following municipalities: Plav (€0.200 million), Bijelo Polje (€0.250 million), Zabljak (€0.250 million), Kolasin (€0.200 million), Danilovgrad (€0.550 million) and Andrijevica (€0.150 million).

Total budget expenditures of the sub-region and region in the first six months of 2007 were €13.96 million and €23.51 million, respectively. Within the sub-region, the greatest share in total expenditures had municipality of Pljevlja (26%) while the lowest share was related to the municipality of Savnik (1.7%). The following municipalities had the share lower than 5% in total expenditures of the sub-region: Andrijevica, Mojkovac, Plav, Pluzine, Savnik and Zabljak.

The greatest share in the structure of expenditures of the sub-region had current expenditures (41.3%) amounting €5.76 million. The second biggest expenditures category were capital expenditures (41.3%). The municipalities of Pljevlja and Rozaje had the greatest capital expenditures. On the other hand, municipalities of Andrijevica and Zabljak had the lowest expenditures in the amount of €0.2 million and €0.4 million, respectively.

Table 6.4: Outturn of budget revenues and expenditures in period January-June 2007, € million

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Revenues</th>
<th>Expenditures</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (€ million)</td>
<td>2 (€ million)</td>
<td>3=(1-2) € million</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>0.663</td>
<td>0.274</td>
<td>0.389</td>
</tr>
<tr>
<td>Berane</td>
<td>1.940</td>
<td>1.790</td>
<td>0.150</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>2.540</td>
<td>2.507</td>
<td>0.033</td>
</tr>
<tr>
<td>Zabljak</td>
<td>0.435</td>
<td>0.350</td>
<td>0.085</td>
</tr>
<tr>
<td>Kolasin</td>
<td>1.750</td>
<td>1.678</td>
<td>0.072</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>0.551</td>
<td>0.546</td>
<td>0.005</td>
</tr>
<tr>
<td>Plav</td>
<td>0.507</td>
<td>0.486</td>
<td>0.021</td>
</tr>
<tr>
<td>Pluzine</td>
<td>0.597</td>
<td>0.507</td>
<td>0.09</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>3.811</td>
<td>3.636</td>
<td>0.175</td>
</tr>
<tr>
<td>Rozaje</td>
<td>2.419</td>
<td>1.950</td>
<td>0.469</td>
</tr>
<tr>
<td>Savnik</td>
<td>0.265</td>
<td>0.240</td>
<td>0.025</td>
</tr>
<tr>
<td>Total north sub-region</td>
<td>15.478</td>
<td>13.964</td>
<td></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>1.989</td>
<td>1.551</td>
<td>0.438</td>
</tr>
<tr>
<td>Niksic</td>
<td>8.031</td>
<td>7.994</td>
<td>0.037</td>
</tr>
<tr>
<td>Total north region</td>
<td>25.498</td>
<td>23.509</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Finance
6.4. SECTORAL ANALYSIS

6.4.1. COMPANIES BUSINESS EFFICIENCY

Data’s about number of companies on the north show that since 2001 till 2006 (these data’s are form 2006) number of registered companies was constantly increasing. Therefore according to MONSTAT data’s in 2001 in northern sub region’s municipalities 1.624 companies were registered while this number in 2006 increased to 3.118. As was to expect majority of company’s in the northern sub region is being registered in biggest municipalities. According to these data’s in Bijelo Polje was registered 36%, in Rozaje 17% and in Berane 16% out of total number of registered company’s in the northern sub region. According to the same source in the northern region in 2001 was registered 2.635 company’s while this number increased in 2006 on 4.966.

MONSTAT data’s don’t comprehend number of entrepreneurs whose number can be reached by Commercial Courts’ Central register insight according to which on February 1st 2008 4.384 entrepreneurs were registered in the northern sub region while 5.667 of them was registered in the northern region.

Graph 6.4: Number of registered entrepreneurs by municipalities (on 01.02.2008)

Source: Commercial Courts’ Central register

Analysis of company’s number (excluding registered entrepreneurs) on 1000 inhabitants shows that average for the northern sub region is 13 companies on 1000 inhabitants while average for the northern region is 17 companies on 1000 inhabitants. Besides Bijelo Polje Rozaje and Berane should be stated as municipalities whereas this number is significant. Observed by type of ownership in all municipalities majority of companies is privately owned. Highest share of state companies is in Pluzine and Savnik. Also, companies with major domestic capital in total number of companies dominate in all municipalities while there is very small number of mixed capital companies. When it is about sectors almost in all municipalities wholesale and retail comes first. Second significant sector is wood processing industry and then processing industry, forestry and water business or tourism. Municipalities in which tourism (hotels and restaurants) is dominant are Bijelo Polje, Zabljak, Savnik as well as Niksic.

21 Number of companies includes partnerships, commandite societies, INC’s, single INC’s, LLC’s, singe LLC’s, public companies, state companies, cooperatives, agencies for insurance services provision.
Nevertheless, quite better review of certain sectors pleads by municipalities give corporate financial results in certain municipalities.
According to financial data’s northern sub region has achieved revenue of €200 millions in 2005 and €265 millions in 2006. Nevertheless, in both years sub region has achieved negative net financial result i.e. net loss of €7.3 (in 2005) and €7.4 (in 2006) millions.
Total northern region has achieved revenue of €682 millions in 2005 and €908 millions in 2006. Also, northern region has achieved negative net financial result i.e. net loss of €47.5 (in 2005) and €48.6 (in 2006) millions.
On one hand this result can be explained by negative business results of major companies within this region (Coal Mine, EPCG, Bauxite mine etc) but it is still wondering that all companies are achieving negative financial result in certain municipalities. Partial responsibility is on reliability of data’s that these companies are giving to proper institutions.

Source: MONSTAT, Statistical Yearbook 2007, ISSP calculations

On one hand this result can be explained by negative business results of major companies within this region (Coal Mine, EPCG, Bauxite mine etc) but it is still wondering that all companies are achieving negative financial result in certain municipalities. Partial responsibility is on reliability of data’s that these companies are giving to proper institutions.

Source: Central Bank of Montenegro, Corporate financial reports analysis for 2006, Calculations: ISSP
The highest revenue in the total northern sub region has been achieved within: wholesale and retail (45% of total revenue), processing industry (21%) and stone and mine extraction sector (14%). Tourism has participated in total revenue with less than 1% and agriculture with almost 5%. Northern region’s analysis has shown that production of electricity, gas and water is on the third place by revenue share. If we analyze financial result i.e. net profit we come to conclusion that wholesale and retail is sector who achieved highest net profit. Processing industry and stone and mine extraction were sectors than contributed mainly to negative financial result of total region.

Graph 6.7: Achieved revenues per capita (2006)

If we observe financial result on municipality level during 2006 only Berane and Danilovgrad had achieved positive financial result observed as aggregate data. As we have already said highest revenue is from few basic sectors hereby higher share of certain sectors such are construction, real estate or traffic, warehouse and connection has been noticeable in bigger municipalities. The worst situation is in Andrijevica, Pluzine, Savnik and Zabljak in which total revenue is achieved based on few sectors activities.

Average achieved revenue per capita for the northern sub region in 2006 was €1.335 while same category for the northern region was €3.123. Highest negative deviation from average of the northern sub region is recorded in Andrijevica (€77 eura per capita), Plav (€278) and Savnik (€305 eura). From the northern sub regions average positive deviation is in Bijelo Polje (almost €2.000) and Pljevlja (€1.795). Of course, highest average is in Niksic with achieved revenue of € 7.858.

Table 6.5: Corporate balance sheets in 2006 by municipalities (u 000 €)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Revenue</th>
<th>Profit-loss from business activities</th>
<th>Net profit-loss for accounting period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>447,562</td>
<td>-73,346</td>
<td>-76,664</td>
</tr>
<tr>
<td>Berane</td>
<td>42,951,204</td>
<td>793,089</td>
<td>631,546</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>100,378,721</td>
<td>-156,448</td>
<td>-963,997</td>
</tr>
<tr>
<td>Kolašin</td>
<td>4,707,775</td>
<td>1,140,721</td>
<td>-1,239,434</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>8,383,265</td>
<td>-339,899</td>
<td>-477,791</td>
</tr>
<tr>
<td>Plav</td>
<td>3,839,531</td>
<td>-898,818</td>
<td>-926,612</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>71,484,722</td>
<td>-3,476,997</td>
<td>-2,070,181</td>
</tr>
<tr>
<td>Plužine</td>
<td>4,710,642</td>
<td>-646,915</td>
<td>-717,985</td>
</tr>
<tr>
<td>Rožaje</td>
<td>24,511,911</td>
<td>-930,628</td>
<td>-1,025,72</td>
</tr>
<tr>
<td>Savnik</td>
<td>898,87</td>
<td>-162,844</td>
<td>-166,173</td>
</tr>
</tbody>
</table>
### Revenue Profit-loss from business activities Net profit-loss for accounting period

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Profit-loss</th>
<th>Net profit-loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zabljak</td>
<td>3,293,169</td>
<td>-277,168</td>
<td>-319,115</td>
</tr>
<tr>
<td>The northern sub region</td>
<td>265,607</td>
<td>-5,029,00</td>
<td>-7,352,00</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>50,828,203</td>
<td>1,846,082</td>
<td>1,044,414</td>
</tr>
<tr>
<td>Niksic</td>
<td>591,638,881</td>
<td>-45,327,533</td>
<td>-42,327,55</td>
</tr>
<tr>
<td>The northern region</td>
<td>908,074,46</td>
<td>-48,510,70</td>
<td>-48,635,26</td>
</tr>
</tbody>
</table>

**Source:** Central Bank of Montenegro, Corporate financial reports analysis for 2006, Calculations: ISSP

### 6.4.2. NORTHERN REGION’S BUSINESS BARRIERS

According SME sector needs Survey which CEED in cooperation with FORS Montenegro has conducted during 2007 in the northern sub region as well as in Municipalities of Danilovgrad and Niksic, non loyal competition represents biggest business barrier of registered companies activities. Besides non loyal competition there are few more barriers for which surveyors considers as significant business development obstacle: high taxes and contributions, administrative barriers, frequent legal and regulatory framework changes and infrastructure.

With defined problems also correspondence answers to question which business rules surveyors would like to change if they have had a chance and that are:
- tax decreasing and procedures simplifications,
- VAT decreasing,
- custom burdens and procedures,
- non loyal competition elimination,
- import procedures simplification,
- better appliance of existing laws.

Besides surveyors believed that grey economy is frequent among registered businesses (42.1%), and more than third (36.2%) that it is occasionally present. According to answers, grey economy is especially present in retail sector.

When it comes to tax rules and procedure surveyors experience is positive. Namely, every second surveyed company considers that tax rules and procedures are easy for understanding and fulfilling. Nevertheless, during ranking of various taxes rules and procedures components surveyors have had the least problems with reporting frequency and tax payments and the most with in advance tax payments. Also surveyors have positive experience in license acquiring with remark that slight advantage was given to national compared with local levels.

Survey results have shown that private business support from the state but local governments as well positively marked by majority of surveyed companies. Nevertheless, that support is higher on national than local level according to surveyors. Concerning legal regulative more than half of surveyors believe that it creates positive conditions for business activities on local and national level (51.9% and 53.1%, respectively). Moreover, by companies from the sample mark laws brought on national level have more positive effects than those brought on local level. These conclusions clearly indicate necessity for further improvement of business environment on local level on all northern region’s municipalities.

Part of mentioned survey was addressed to non registered companies within northern region. Survey has shown that in majority of cases surveyors have never tried to register their businesses. As the most frequent reasons they state: high registration fees, high VAT and CIT and limitation and/or expensive disputes and rules what are main reasons why even now there is no will for registration of business by majority of unregistered business. According to these surveyors opinion high prices have been marked
as barriers that create majority of problems while lack of certain management skills creates the least problems for business during theirs activities conducting.

Results of survey that ISSP has conducted for the needs of CHF in 2005 also give useful information about business barriers with which entrepreneurs are facing within the region. According to surveyors which own a company or works as entrepreneurs business registration problems aren’t that significant. Nevertheless, it is a great deal of problems with which business people are facing during theirs business activities. As main problems surveyors have stated following:

- too long and demanding procedures,
- lack of information about fees and expenditures,
- employees attitude, and
- corruption.

There is also a significant number (about 1/3) of surveyors who have stated that they would need professional assistance during problems solving and that they are ready to pay for it. Stated information clearly indicates on high lack of information and training of business proprietors to manage in the business world and to improve their own business. As addition to this statement are data’s by which very small number of surveyors know what business plan is or is certain business association member.

Households in agriculture production in the northern municipalities mainly don’t have mechanization and aren’t familiar with production standards and almost in every case they haven’t passed any training program.

The biggest problem for beginning of own business is lack of money but also lack of ideas and knowledge. Areas within this region which are stated by surveyors as areas in which they would start their own business are: agriculture and fishing, wholesale as well as tourism and catering. In Municipalities of Niksic and Danilovgrad those are also sectors such as construction and real estate.

### 6.5. FINANCIAL INSTITUTIONS

#### 6.5.1. BANKING SECTOR

There are ten banks in banking systems in Montenegro. The result of bank’s dismembered organization is good coverage of all cities in the northern region. Besides Niksic Bijelo Polje, Pljevlja and Rozaje are also marked off as cities in which banks have significant number of dismembered organizational parts.

Table 6.6: Organization parts of the banks in the northern region of Montenegro

<table>
<thead>
<tr>
<th></th>
<th>Atlas Mont bank</th>
<th>NLB</th>
<th>First bank of Montenegro</th>
<th>Commercial bank INC Budva</th>
<th>CKB</th>
<th>Podgorica bank SG Group</th>
<th>Opportunity bank</th>
<th>Invest bank Montenegro</th>
<th>Hipotekarna bank</th>
<th>Hypo Alpe-Adria Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berane</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>E</td>
<td>F</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>E, C</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>F</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kolasin</td>
<td>C</td>
<td>F</td>
<td></td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mojkovac</td>
<td>E</td>
<td>F</td>
<td>C</td>
<td>F</td>
<td>O</td>
<td>E</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Niksic</td>
<td>F</td>
<td>F, C</td>
<td>F</td>
<td>O</td>
<td>E</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
</tbody>
</table>
If we divide total number of inhabitants in northern region of Montenegro with total number of banks’ organizational parts who make this region (the filial, the expository, and the office) we get a data that on each one of them come 5,700 inhabitant while same data for Montenegro in general is 7,500. Out of total number of bank’s organizational parts 32.7% relates to northern region.

Banks activities that do business in northern region of Montenegro are mainly oriented on corporate and individual services. Services towards individuals mainly comprehend loan activities, savings, credit cards and accounts opening. Services towards corporate clients mainly comprehend loans and guarantees and depots affairs.

Table 6.7: Loan sum given to legal and individual entities in EUR, balance 31.12.2006.

<table>
<thead>
<tr>
<th>Loans to population</th>
<th>Credit to enterprises</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total north region</td>
<td>79,208,017,00</td>
<td>144,360,168,00</td>
</tr>
<tr>
<td>Share north region</td>
<td>25.5%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Total Montenegro</td>
<td>311,175,000,00</td>
<td>484,735,000,00</td>
</tr>
</tbody>
</table>

Source: Banks

From the total loans 28.1% have approved for northern region of Montenegro while 35% out of total loans in northern region were for individuals while 65% were loans to legal entities.

6.5.2. MICRO CREDIT INSTITUTIONS

Besides banks as dominated institutions in financing enterprises and individuals in Montenegro, micro credit institutions have very important role for the northern region especially because of theirs credit program amended for agriculture projects. In 2006 in Montenegro, there were five micro credit institutions (Altermodus, Agroinvest, Montenegro Investment Credit, Ozmont and Klikloan).

Table 6.8: MFI total loan sum, in EUR, balance 31.12.2006

<table>
<thead>
<tr>
<th>Placement credit</th>
<th>Share in credit of north sub region</th>
<th>Share in credit in Montenegro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>686,377,00</td>
<td>8,1%</td>
</tr>
<tr>
<td>Berane</td>
<td>3,300,372,00</td>
<td>39,0%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>2,142,964,00</td>
<td>25,3%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>19,434,00</td>
<td>0,2%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>213,588,00</td>
<td>2,5%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>259,360,00</td>
<td>3,1%</td>
</tr>
<tr>
<td>Plav</td>
<td>97,390,00</td>
<td>1,2%</td>
</tr>
</tbody>
</table>
### Socio Economic Analysis of the Northern Region of Montenegro

<table>
<thead>
<tr>
<th>Location</th>
<th>Placement Credit (€)</th>
<th>Share in Credit of North Sub Region (%)</th>
<th>Share in Credit in Montenegro (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pluzine</td>
<td>11,559,00</td>
<td>0,1%</td>
<td>0,0%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>1,047,375,00</td>
<td>12,4%</td>
<td>3,2%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>680,508,00</td>
<td>8,0%</td>
<td>2,1%</td>
</tr>
<tr>
<td>Savnik</td>
<td>2,119,00</td>
<td>0,0%</td>
<td>0,0%</td>
</tr>
<tr>
<td>Northern sub region</td>
<td>8,461,046,00</td>
<td>100,0%</td>
<td>26,1%</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>3,666,128,00</td>
<td>43,3%</td>
<td>11,3%</td>
</tr>
<tr>
<td>Niksic</td>
<td>17,992,819,00</td>
<td>212,7%</td>
<td>55,4%</td>
</tr>
<tr>
<td>Northern region</td>
<td>30,119,993,00</td>
<td>356,0%</td>
<td>92,8%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>32,473,000,00</td>
<td>383,8%</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

Source: Micro credit institution

According to data from 2006 from the total loans approved in Montenegro by micro credit institutions 26.1% was in northern region of Montenegro. The majority of resources in northern sub region were for Municipality of Berane (10.2%) and Municipality of Bijelo Polje (10.2%). Significant part of resource was placed in municipality of Niksic (55.4%) what effects situation in which that the total value of given resources by micro credit institutions in northern region was 92.8%.

### Insurance

There are five insurance and one for re-insurance company in Montenegro at this moment. Lovcen insurance is still the biggest insurance house with share about 74% which has branches in Niksic, Berane, Pljevlja and Bijelo Polje while have offices in all cities in northern region.


<table>
<thead>
<tr>
<th>Premium amount in the northern region (millions €)</th>
<th>11.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern region premium share in total premium value</td>
<td>27.7%</td>
</tr>
<tr>
<td>Premium amount in Montenegro (millions €)</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Source: Insurance association

Total insurance premium in 2006 was €40,401 million from which 97.8% relates to three insurance companies Lovcen insurance, Montenegro insurance and Swiss insurance. From the total calculated insurance premium only 27.7% relates to northern region. Regarding insurance type 95.5% relates to non life insurance while to life assurance goes 4.5% with notable growth in life insurance over two previous years.

### 6.6. Agriculture

Agricultural production could be one of the key development resources of northern Montenegro. Nevertheless certain sector becomes developing only when individual participants see opportunity for profit creation and own needs fulfilling. When it comes to northern region like that moment of acknowledgment either didn’t arrive or people aren’t appealed to identify it.

Beside individual producers and several companies involved in agro-business there are several cooperatives. Among them agricultural cooperatives are dominant (total is 21 within the region) which is understandable concerning attractiveness of this region for such agro-business. Nevertheless it is odd to have only one bee cooperative (Sljivovica). Lack of ranch cooperatives can be explained by big companies’ domination within this sector.
Table 6.10: Agricultural cooperatives in northern region

<table>
<thead>
<tr>
<th>Name</th>
<th>Agricultural cooperatives</th>
<th>Bee cooperatives</th>
<th>Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>x</td>
<td></td>
<td>Andrijevica</td>
</tr>
<tr>
<td>Javorak</td>
<td>x</td>
<td></td>
<td>Berane</td>
</tr>
<tr>
<td>Petnjica</td>
<td>x</td>
<td></td>
<td>Berane</td>
</tr>
<tr>
<td>Vrbica</td>
<td>x</td>
<td></td>
<td>Berane</td>
</tr>
<tr>
<td>Farmer</td>
<td>x</td>
<td></td>
<td>Bijelo Polje</td>
</tr>
<tr>
<td>Trebaljevo</td>
<td>x</td>
<td></td>
<td>Kolasin</td>
</tr>
<tr>
<td>Sljivovica</td>
<td>x</td>
<td></td>
<td>Kolasin</td>
</tr>
<tr>
<td>Plav</td>
<td>x</td>
<td></td>
<td>Plav</td>
</tr>
<tr>
<td>Ali Hot</td>
<td>x</td>
<td></td>
<td>Plav</td>
</tr>
<tr>
<td>Mljekara</td>
<td>x</td>
<td></td>
<td>Pljevlja</td>
</tr>
<tr>
<td>Eko-Vrulja</td>
<td>x</td>
<td></td>
<td>Pljevlja</td>
</tr>
<tr>
<td>Doganje</td>
<td>x</td>
<td></td>
<td>Pljevlja</td>
</tr>
<tr>
<td>Napredak</td>
<td>x</td>
<td></td>
<td>Pljevlja</td>
</tr>
<tr>
<td>Kooperativa</td>
<td>x</td>
<td></td>
<td>Pljevlja</td>
</tr>
<tr>
<td>Agrobisernica</td>
<td>x</td>
<td></td>
<td>Rozaje</td>
</tr>
<tr>
<td>Integral</td>
<td>x</td>
<td></td>
<td>Rozaje</td>
</tr>
<tr>
<td>Balotice</td>
<td>x</td>
<td></td>
<td>Rozaje</td>
</tr>
<tr>
<td>Bogaje</td>
<td>x</td>
<td></td>
<td>Rozaje</td>
</tr>
<tr>
<td>Krivi Bor</td>
<td>x</td>
<td></td>
<td>Rozaje</td>
</tr>
<tr>
<td><strong>Total sub-region</strong></td>
<td><strong>18</strong></td>
<td><strong>1</strong></td>
<td></td>
</tr>
<tr>
<td>Dona</td>
<td>x</td>
<td></td>
<td>Danilovgrad</td>
</tr>
<tr>
<td>Zupa</td>
<td>x</td>
<td></td>
<td>Niksic</td>
</tr>
<tr>
<td>Bogetici</td>
<td>x</td>
<td></td>
<td>Niksic</td>
</tr>
<tr>
<td>Kapino polje</td>
<td>x</td>
<td></td>
<td>Niksic</td>
</tr>
<tr>
<td><strong>Total region</strong></td>
<td><strong>22</strong></td>
<td><strong>1</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Cooperative association of Montenegro

Agricultural land by usage categories is being divided to arable areas and pastures. Total arable land in northern region in 2006 is 146.739 ha what represents 77.54% of total arable area in Republic while total arable area in northern sub-region is 125.956 (66.56%). Total pasture area in northern region is 238.247 ha or 73.20% of total pasture area in Montenegro. In northern sub-region is 186.801 ha or 57.4% of total pasture area in Republic. From all municipalities highest share in arable area category belongs to municipality of Pljevlja (22.50%) and municipality of Bijelo Polje (19.02%). When it comes to share in total area in pasture category highest share belongs to Pljevlja and Savnik, 21.87% and 13.42%, respectively. Municipalities of Danilovgrad and Niksic have 5.51% and 8.65%, share in arable land respectively while in pasture category have 4.06% and 17.54% share respectively. During 2006 in northern part of Republic insignificant increase of total arable land occurred (0.06%).

Overview for northern municipalities for both categories is being given in following table as in absolute as in relative amounts.

Table 6.11: Land by usage category

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Arable land in ha</th>
<th>Share in total</th>
<th>Pastures in ha</th>
<th>Share in total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>5.637</td>
<td>4.47%</td>
<td>7.702</td>
<td>4.12%</td>
</tr>
<tr>
<td>Berane</td>
<td>15.728</td>
<td>12.49%</td>
<td>13.587</td>
<td>7.27%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>23.955</td>
<td>19.02%</td>
<td>16.472</td>
<td>8.82%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>6.361</td>
<td>5.05%</td>
<td>15.659</td>
<td>8.38%</td>
</tr>
<tr>
<td>Kolašin</td>
<td>9.151</td>
<td>7.27%</td>
<td>18.691</td>
<td>10.01%</td>
</tr>
</tbody>
</table>

93
SOCIO ECONOMIC ANALYSIS OF THE NORTHERN REGION OF MONTENEGRO

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Arable land in ha</th>
<th>Share in total</th>
<th>Pastures in ha</th>
<th>Share in total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mojkovac</td>
<td>4,697</td>
<td>3.73%</td>
<td>8,990</td>
<td>4.81%</td>
</tr>
<tr>
<td>Plav</td>
<td>8,204</td>
<td>6.51%</td>
<td>16,546</td>
<td>8.86%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>7,297</td>
<td>5.79%</td>
<td>12,433</td>
<td>6.66%</td>
</tr>
<tr>
<td>Prijevla</td>
<td>28,337</td>
<td>22.50%</td>
<td>40,853</td>
<td>21.87%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>9,485</td>
<td>7.53%</td>
<td>10,803</td>
<td>5.78%</td>
</tr>
<tr>
<td>Savnik</td>
<td>7,104</td>
<td>5.64%</td>
<td>25,065</td>
<td>13.42%</td>
</tr>
<tr>
<td><strong>Total sub-region</strong></td>
<td><strong>125,956</strong></td>
<td><strong>66.56%</strong></td>
<td><strong>186,801</strong></td>
<td><strong>57.40%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>8,088</td>
<td>5.51%</td>
<td>9,663</td>
<td>4.06%</td>
</tr>
<tr>
<td>Niksic</td>
<td>12,695</td>
<td>8.65%</td>
<td>41,783</td>
<td>17.54%</td>
</tr>
<tr>
<td><strong>Total region</strong></td>
<td><strong>146,739</strong></td>
<td><strong>77.54%</strong></td>
<td><strong>238,247</strong></td>
<td><strong>73.21%</strong></td>
</tr>
</tbody>
</table>

Source: MONSTAT, Statistical Yearbook 2006

Following table gives more comprehensive overview of agricultural land by usage categories in northern region for 2006.

Table 6.12: Agricultural land category usage overview

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Total</th>
<th>Arable field and gardens</th>
<th>Orchards</th>
<th>Vineyards</th>
<th>Meadows</th>
<th>Pastures</th>
<th>Ponds, fish ponds and reeds</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>5,637</td>
<td>627</td>
<td>629</td>
<td>-</td>
<td>4,381</td>
<td>7702</td>
<td>-</td>
<td>13,339</td>
</tr>
<tr>
<td>Berane</td>
<td>15,728</td>
<td>3,935</td>
<td>1,081</td>
<td>-</td>
<td>10,712</td>
<td>13,587</td>
<td>6</td>
<td>29,321</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>23,955</td>
<td>7,459</td>
<td>1,887</td>
<td>-</td>
<td>14,609</td>
<td>16,472</td>
<td>-</td>
<td>40,427</td>
</tr>
<tr>
<td>Zabljak</td>
<td>6,361</td>
<td>171</td>
<td>-</td>
<td>4</td>
<td>6,190</td>
<td>15,659</td>
<td>-</td>
<td>22,020</td>
</tr>
<tr>
<td>Kolašin</td>
<td>9,151</td>
<td>967</td>
<td>380</td>
<td>4</td>
<td>7,800</td>
<td>18,691</td>
<td>5</td>
<td>27,847</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>4,697</td>
<td>616</td>
<td>136</td>
<td>-</td>
<td>3,945</td>
<td>8,990</td>
<td>-</td>
<td>13,687</td>
</tr>
<tr>
<td>Plav</td>
<td>8,204</td>
<td>1,967</td>
<td>624</td>
<td>-</td>
<td>5,613</td>
<td>16,546</td>
<td>2</td>
<td>24,752</td>
</tr>
<tr>
<td>Pluzine</td>
<td>7,297</td>
<td>477</td>
<td>25</td>
<td>-</td>
<td>6,795</td>
<td>12,433</td>
<td>-</td>
<td>19,730</td>
</tr>
<tr>
<td>Prijevla</td>
<td>28,337</td>
<td>9,412</td>
<td>343</td>
<td>-</td>
<td>18,582</td>
<td>40,853</td>
<td>1</td>
<td>69,191</td>
</tr>
<tr>
<td>Rozaje</td>
<td>9,485</td>
<td>802</td>
<td>17</td>
<td>-</td>
<td>8,666</td>
<td>10,803</td>
<td>-</td>
<td>20,288</td>
</tr>
<tr>
<td>Savnik</td>
<td>7,104</td>
<td>330</td>
<td>51</td>
<td>-</td>
<td>6,723</td>
<td>25,065</td>
<td>1</td>
<td>32,170</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>8,088</td>
<td>394</td>
<td>291</td>
<td>132</td>
<td>7,271</td>
<td>9,663</td>
<td>7</td>
<td>17,758</td>
</tr>
<tr>
<td>Niksic</td>
<td>12,695</td>
<td>3,776</td>
<td>375</td>
<td>26</td>
<td>8,518</td>
<td>41,783</td>
<td>-</td>
<td>54,478</td>
</tr>
</tbody>
</table>

Source: MONSTAT, Statistical Yearbook 2006

Arable lands we divide by usage manner on those under cereals, vegetables and fodder. Arable areas under cereals in northern region in 2006 comprehend 3.529 ha or 69.18% of total area in Republic. Arable are in northern sub region are 3.294 or 64.58% of the same on all country’s level. In sub-region in this category dominates municipality Bijelo Polje (42.81%) while least area is Pluzine (0.49%). Niksic and Danilovgrad have share of 5.64% and 1.02% in ratio with northern region. Areas under vegetables in northern region take 11.930 ha or 66.58% of total country’s area. When we talk about northern sub region vegetables comprehend 8.892ha or 49.62% related to Montenegro. Highest share has Bijelo Polje (29.26%) and least Zabljak (1.12%). In Niksic is 23.89% of total area in the region while Danilovgrad takes 1.58%. Fodder areas in northern region comprehend 5.011 or 67.03% of total area. Same category in northern sub region takes 55.07%. Highest share among northern municipalities has Bijelo Polje (35.85%) while Savnik has the least share (0.15%). In Niksic is 14.51% of fodder areas related to total are in Montenegro while in Danilovgrad is 3.33%.

When it is about arable land and gardens it is obvious that in 2006 compared to 2005 they have decreased in northern part for 4.8%. On the other hand total cultivated land (cereals, vegetables and fodder)
decreased for 2.89%. Although percentages are relatively small it is questionable are we facing agricultural activities decrease in northern part.

Table 6.13: Cultivated land overview

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>Cereals</th>
<th>Share in total</th>
<th>Vegetables</th>
<th>Share in total</th>
<th>Fodder</th>
<th>Share in total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>245</td>
<td>7.44%</td>
<td>349</td>
<td>3.92%</td>
<td>32</td>
<td>0.78%</td>
</tr>
<tr>
<td>Berane</td>
<td>548</td>
<td>16.64%</td>
<td>1.680</td>
<td>18.89%</td>
<td>923</td>
<td>22.42%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>1.410</td>
<td>42.81%</td>
<td>2.602</td>
<td>29.26%</td>
<td>1.476</td>
<td>35.85%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>71</td>
<td>2.16%</td>
<td>100</td>
<td>1.12%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kolašin</td>
<td>144</td>
<td>4.37%</td>
<td>739</td>
<td>8.31%</td>
<td>55</td>
<td>1.34%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>195</td>
<td>5.92%</td>
<td>280</td>
<td>3.15%</td>
<td>141</td>
<td>3.42%</td>
</tr>
<tr>
<td>Plav</td>
<td>323</td>
<td>9.81%</td>
<td>536</td>
<td>6.03%</td>
<td>1.080</td>
<td>26.23%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>16</td>
<td>0.49%</td>
<td>286</td>
<td>3.22%</td>
<td>34</td>
<td>0.83%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>205</td>
<td>6.22%</td>
<td>1.460</td>
<td>16.42%</td>
<td>250</td>
<td>6.07%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>94</td>
<td>2.85%</td>
<td>579</td>
<td>6.51%</td>
<td>120</td>
<td>2.91%</td>
</tr>
<tr>
<td>Savnik</td>
<td>43</td>
<td>1.31%</td>
<td>281</td>
<td>3.16%</td>
<td>6</td>
<td>0.15%</td>
</tr>
<tr>
<td>Total sub-region</td>
<td>3.294</td>
<td>64.57%</td>
<td>8.892</td>
<td>49.63%</td>
<td>4.117</td>
<td>55.07%</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>36</td>
<td>1.02%</td>
<td>188</td>
<td>1.58%</td>
<td>167</td>
<td>3.33%</td>
</tr>
<tr>
<td>Niksic</td>
<td>199</td>
<td>5.64%</td>
<td>2.850</td>
<td>23.89%</td>
<td>727</td>
<td>14.51%</td>
</tr>
<tr>
<td>Total region</td>
<td>3.529</td>
<td>69.18%</td>
<td>11.930</td>
<td>66.58%</td>
<td>5.011</td>
<td>67.03%</td>
</tr>
</tbody>
</table>

*Source: MONSTAT, Statistical Yearbook 2006*

Following table gives overview of arable land in northern region in 2006.

Table 6.14: Cultivated land by crops

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>ARABLE FIELDS AND GARDENS</th>
<th>Total</th>
<th>Cereals</th>
<th>Industrial plants</th>
<th>Vegetables</th>
<th>Fodder</th>
<th>FALLOWLAND AND UNCULTIVATED ARABLE FIELDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>627</td>
<td>626</td>
<td>245</td>
<td>-</td>
<td>349</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Berane</td>
<td>3,935</td>
<td>3,151</td>
<td>548</td>
<td>-</td>
<td>1,680</td>
<td>923</td>
<td>784</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>7,459</td>
<td>5,488</td>
<td>1,410</td>
<td>-</td>
<td>2,602</td>
<td>1,476</td>
<td>1,971</td>
</tr>
<tr>
<td>Zabljak</td>
<td>171</td>
<td>171</td>
<td>71</td>
<td>-</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kolašin</td>
<td>967</td>
<td>938</td>
<td>144</td>
<td>-</td>
<td>739</td>
<td>55</td>
<td>29</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>616</td>
<td>616</td>
<td>195</td>
<td>-</td>
<td>280</td>
<td>141</td>
<td>-</td>
</tr>
<tr>
<td>Plav</td>
<td>1,967</td>
<td>1,939</td>
<td>323</td>
<td>-</td>
<td>536</td>
<td>1,080</td>
<td>28</td>
</tr>
<tr>
<td>Pluzine</td>
<td>477</td>
<td>336</td>
<td>16</td>
<td>-</td>
<td>286</td>
<td>34</td>
<td>141</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>9,412</td>
<td>1,915</td>
<td>205</td>
<td>-</td>
<td>1,460</td>
<td>250</td>
<td>7,497</td>
</tr>
<tr>
<td>Rozaje</td>
<td>802</td>
<td>793</td>
<td>94</td>
<td>-</td>
<td>579</td>
<td>120</td>
<td>9</td>
</tr>
<tr>
<td>Savnik</td>
<td>330</td>
<td>330</td>
<td>43</td>
<td>-</td>
<td>281</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Total sub-region</td>
<td>26,763</td>
<td>16,303</td>
<td>3,294</td>
<td>-</td>
<td>8,892</td>
<td>4,117</td>
<td>10,460</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>394</td>
<td>391</td>
<td>36</td>
<td>-</td>
<td>188</td>
<td>167</td>
<td>3</td>
</tr>
<tr>
<td>Niksic</td>
<td>3,776</td>
<td>3,776</td>
<td>199</td>
<td>-</td>
<td>2,850</td>
<td>727</td>
<td>-</td>
</tr>
<tr>
<td>Total region</td>
<td>30,933</td>
<td>20,470</td>
<td>3,529</td>
<td>-</td>
<td>11,930</td>
<td>4,284</td>
<td>10,463</td>
</tr>
</tbody>
</table>

*Source: MONSTAT, Statistical Yearbook 2006*
When we talk about cereals production in this region we segregate maize, wheat and rye. Total harvested area (in ha) for these three categories in northern region is 1.359 ha (maize), 415 ha (wheat) and 174 ha (rye) i.e. they takes following shares in total harvested area 48.85%, 51.36% and 99.42% respectively. In northern sub region their share is 1.536 ha (maize), 392 ha (wheat), 159 ha (rye). Northern sub regions’ share in total yield in Montenegro is 44.07% (maize), 48.51% (wheat) and 90.86% (rye). Total yield of these cultures in northern region is 4.862 tons of maize, 1.320 tons of wheat and 379 tons of rye. These yields make 46.58%, 51.94% and 96.19% for maize, wheat and rye respectively. And barley is producing in northern region. In 2006 total harvested rye area was 838 ha while this culture yield was 1.920 tons. Barley harvested area and yield in northern part in Republic’s total takes 97.44% i.e. 97.66%. In northern sub region situation is slightly different and therefore total harvested area is 758 ha while total yield is 1.782 tons. Share of harvested area of northern sub region in total harvested areas is 97.44% while yield share in total is 90.64%. Potato and bean as two significant vegetables cultures are quite present in northern part of Montenegro. Total potato i.e. bean harvested area (in ha) in northern region is 8.275 ha i.e. 526 ha while in northern sub region is 6.481 ha i.e. 384 ha, respectively. This two vegetables cultures yield in northern region is 103.798 tons of potato and 1.837 tons of beans. These cultures yields in northern sub region are 77.313 tons of potato i.e. 1.612 tons of beans. Potato and bean harvested areas share in total is 81.30% i.e. 77.70% while share of the same in northern sub-region elated to total of Montenegro is 63.67% i.e. 56.72%. These vegetable cultures in northern part have share in total yields of 78.17% and 85.36% respectively while in northern sub region their share related to total of Republic is 58.23% i.e. 74.90%.

Compared with 2005 total maize harvested area have decreased for 15.65% while total yield for same period have decreased for 18.9%. When it comes to wheat total harvested area have decreased in 2006 compared to 2005 for 9.63% i.e. total yield decreased for 14.17% within the same period. Trend of harvested area and yields increase is present in case of rye for 67% i.e. 64.17% respectively. When it comes to potato there is also decrease trend as of harvested area as of yields. Harvested areas in 2006 compared with 2005 have been decreased for 1.65% while yields have decreased for 1.15%.

Table 6.15: Cereals production in northern region in 2006

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>MAIZE</th>
<th>WHEAT</th>
<th>RYE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Harvested area, ha</td>
<td>Yield, tons total</td>
<td>Harvested area, ha</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>240 480 2,00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Berane</td>
<td>300 570 1,9 143 272 1,90</td>
<td>15 14 0,90</td>
<td>-</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>450 2.385 5,3 240 960 4,0 120 300 2,50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Zabljak</td>
<td>- - - -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kolašin</td>
<td>112 263 2,35 - - 4 6 1,55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>129 129 1,00 5 15 3,00 4 13 3,20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plav</td>
<td>300 390 1,30 - - 4 5 1,30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pluzine</td>
<td>- - - 4 6 1,50</td>
<td>2 3 1,30</td>
<td>-</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>5 6 1,20 - - 10 30 3,00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rozaje</td>
<td>- - - -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Savnik</td>
<td>- - - -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total sub-region</td>
<td>1.536 4.223 15,05 392 1.253 10,4 159 371 13,75</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>30 261 8,70 4 12 3,00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Niksic</td>
<td>63 378 6,00 19 55 2,90 15 23 1,50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total region</td>
<td>1.629 4.862 29,75 415 1.320 16,3 174 394 15,25</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: MONSTAT, Statistical Yearbook 2006
### Table 6.16: Cereals and vegetables production in northern region in 2006

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>BARLEY</th>
<th>POTATO</th>
<th>BEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Harvested area, ha</td>
<td>Yield, tons total by ha</td>
<td>Harvested area, ha</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>2</td>
<td>3.0</td>
<td>1.60</td>
</tr>
<tr>
<td>Berane</td>
<td>40</td>
<td>60.0</td>
<td>1.50</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>370</td>
<td>1.036.0</td>
<td>2.80</td>
</tr>
<tr>
<td>Zabljak</td>
<td>71</td>
<td>71.0</td>
<td>1.00</td>
</tr>
<tr>
<td>Kolašin</td>
<td>21</td>
<td>41.0</td>
<td>1.93</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>27</td>
<td>108.0</td>
<td>4.00</td>
</tr>
<tr>
<td>Plav</td>
<td>10</td>
<td>13.0</td>
<td>1.30</td>
</tr>
<tr>
<td>Pluzine</td>
<td>6</td>
<td>8.0</td>
<td>1.30</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>130</td>
<td>260.0</td>
<td>2.00</td>
</tr>
<tr>
<td>Rozaje</td>
<td>65</td>
<td>163.0</td>
<td>2.50</td>
</tr>
<tr>
<td>Savnik</td>
<td>16</td>
<td>19.0</td>
<td>1.20</td>
</tr>
<tr>
<td><strong>Total</strong> sub-region**</td>
<td>758</td>
<td>1.782</td>
<td>21,13</td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>2</td>
<td>5.0</td>
<td>2,50</td>
</tr>
<tr>
<td>Niksic</td>
<td>78</td>
<td>133.0</td>
<td>1.70</td>
</tr>
<tr>
<td><strong>Total region</strong></td>
<td>838</td>
<td>1.920</td>
<td>25,33</td>
</tr>
</tbody>
</table>

*Source: MONSTAT, Statistical Yearbook 2006*

When it comes to fruit production in this region dominates apples, pears and plums. Total number of productive trees of apples, pears and plums in northern region in 2006 is 342,650, 140,692 and 1,058,970 respectively. Theirs share in northern sub region is 238,850, 99,422 and 952,960 respectively. Share of these productive trees in northern region in theirs total number in Republic is 87.63%, 77.3% and 95.32%. Share of these cultures in northern sub region compared with total is 61.08%, 54.63% and 85.77%. These cultures yields in northern region are 4,322, 1,030 and 4,599, respectively what represents share in total amount of 80.60%, 54.82% and 82.9%, respectively. Northern sub region yield is 2,765, 614 and 3,758 tons respectively what represents share of 49.07%, 32.68% and 67.82%, respectively, compared to Montenegro in total.

Following table shows productive trees number, yields and yields by hectare in more detailed manner for all 13 municipalities for 2006.

### Table 6.17: Number of fruit productive trees and yield

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>APPLES</th>
<th>Pears</th>
<th>PLUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of productive tress</td>
<td>Yield, tons total By tree</td>
<td>Number of productive tress</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>7,650</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Berane</td>
<td>38,900</td>
<td>117</td>
<td>3</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>100,000</td>
<td>900</td>
<td>9</td>
</tr>
<tr>
<td>Zabljak</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kolašin</td>
<td>38,000</td>
<td>532</td>
<td>14</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>5,630</td>
<td>253</td>
<td>45</td>
</tr>
<tr>
<td>Plav</td>
<td>25,000</td>
<td>625</td>
<td>25</td>
</tr>
<tr>
<td>Pluzine</td>
<td>2,270</td>
<td>57</td>
<td>25</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>18,500</td>
<td>185</td>
<td>10</td>
</tr>
<tr>
<td>Rozaje</td>
<td>1,850</td>
<td>28</td>
<td>15</td>
</tr>
<tr>
<td>Savnik</td>
<td>1,050</td>
<td>37</td>
<td>35</td>
</tr>
</tbody>
</table>
Number of productive grapevines in 2006 in northern region is 434,500 and yield 767 tons. Share of productive grapevines number and theirs yield is 2.77% i.e. 1.83% what means that this culture in north is absolutely negligible. Such ratio is completely understandable according to characteristics of wine thread and environment and climate which serve to it.

Livestock activity is one of the most developed segments of agriculture. Northern region absolutely serve to this agro-business type development. At beginning of 2007 number of cattle’s, pigs and sheep is 82,587, 9,757 and 186,842 respectively. In the same period their number in northern sub region is 68,340, 3,342 and 157,592 respectively. Share of livestock balance in northern region in total number of cattle’s, pigs and sheep is 84.27%, 76.39% and 85.57%, respectively. On the other hand share of northern sub region’s livestock balance compared with Republic is 69.73%, 26.16% and 72.18% respectively. Total number of cattle’s, pigs and sheep in 2007 compared with 2006 have decreased for 0.93%; increased for 7.97% i.e. decreased for 3.44% in 2007 respectively.

Table 6.18: Livestock balance on January 31st 2007

<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>CATTLE</th>
<th>HORSES</th>
<th>SHEEP</th>
<th>POULTRY</th>
<th>BEEHIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>total</td>
<td>total</td>
<td>total</td>
<td>total</td>
</tr>
<tr>
<td></td>
<td>cows</td>
<td>sows</td>
<td>breeding ewes</td>
<td>mares</td>
<td>mares</td>
</tr>
<tr>
<td></td>
<td>in-calf</td>
<td>pregnant yearlings</td>
<td></td>
<td>and in-foal mares</td>
<td></td>
</tr>
<tr>
<td>Andrijevica</td>
<td>3.543</td>
<td>1.698</td>
<td>399</td>
<td>12</td>
<td>4.823</td>
</tr>
<tr>
<td>Zabljak</td>
<td>1.936</td>
<td>1.237</td>
<td>-</td>
<td>-</td>
<td>5.056</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>2.753</td>
<td>1.792</td>
<td>460</td>
<td>8</td>
<td>7.388</td>
</tr>
<tr>
<td>Plav</td>
<td>6.326</td>
<td>3.224</td>
<td>902</td>
<td>438</td>
<td>22.628</td>
</tr>
<tr>
<td>Pluzine</td>
<td>2.635</td>
<td>2.062</td>
<td>-</td>
<td>-</td>
<td>11.734</td>
</tr>
<tr>
<td>Total sub-region</td>
<td>68.340</td>
<td>43.870</td>
<td>3.342</td>
<td>675</td>
<td>157.592</td>
</tr>
</tbody>
</table>

Source: MONSTAT, Statistical Yearbook 2006

Number of productive tresses for apples, pears and plums in the northern region of Montenegro.
Northern part of Montenegro lags for the rest of the country by many economic indicators. Nevertheless in certain agricultural categories it has significant advantages compared with other two regions what might address to resources that should be used in that region.

6.7. TECHNICAL-TECHNOLOGICAL INSTITUTIONS

The lacking category for the northern region also are technical-technological institution. From various types of these institutions there are only two within Montenegrin north: Institute for black metals in Niksic (within technical institute’s category with 66 employees) and Optel in Pljevlja (as technological centre with 35 employees). Ono po čemu je sjeverni region takođe na začelju jesu tehničko-tehnološke institucije.

6.8. TOURIST INFRASTRUCTURE

Swimming tourism i.e. “sun and beach” dominates in Montenegrin touristic offer during previous period. Nevertheless, Montenegro has tremendous potential to develop various touristic products during summer and winter season. The most popular northern region’s destinations are Zabljak and Kolasin. However, they still generate quite small number of tourist arrivals. Main reason for quite small tourist arrivals is still undeveloped offer, low capacity level (hotels especially) as well as bad infrastructure.

Besides winter tourism other modes of tourism in northern region are developing. Those possible modes are:

- Summer mountain tourism (hiking, rafting, national parks detours);
- Eco – tourism (rural and agro tourism);
- Sport tourism (skiing, climbing, cycling, sport teams’ preparations);
- Religious tourism.

As main tourism development resources within northern region National parks of Durmitor and Biogradska Gora are often emphasized.

Table 6.19: National parks in northern region of Montenegro

<table>
<thead>
<tr>
<th>National parks</th>
<th>Place (Municipality)</th>
<th>Area in hectare</th>
<th>Year of establishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durmitor</td>
<td>Zabljak</td>
<td>32.100</td>
<td>1952.</td>
</tr>
<tr>
<td>Biogradska gora</td>
<td>Kolašin</td>
<td>5.400</td>
<td>1952.</td>
</tr>
</tbody>
</table>

Source: PE National parks

National parks represent unique natural complexes that are characterized by heterogeneous eco systems, rare vegetable and animal species. Biogradska gora is one of three last ancient forests in Europe. From her total area 80.0% relates to forests while many of stables are older than 500 years. Nowadays preserved and protected nature has more and more significance because of higher space pollution and that is tremendous tourism potential hidden within northern part of the country. Approximately 3.12% territory of Montenegro is under national parks status: Durmitor and Biogradska gora i.e. 5.7% of the northern region’s territory is under national parks status: Durmitor and Biogradska gora.

Mountain zone of Montenegro is usefully for development of winter tourism that is after swimming tourism most valuable tourism mode in Montenegro. Mountains in Montenegro comprehend area above 1.000 m altitude and they make 55.0% of total Montenegrin territory. The most popular ski resorts in the northern region are:

- Durmitor – Zabljak;
- Bjelasica – Kolasing;
The river Tara is the longest mountain river in Montenegro. Its canyon is 80 km long with approximate deepness of 1.300 m and represents tremendous potential for rafting and other sports development.

Eco tourism becomes new mode of touristic offer in the northern Montenegro and only during summer 2006 eco-catunes’ effectuated around 1000 nights from which 70% were foreign tourists stays. Favorable parts for this tourism type development in the northern part are Bjelasica and Komovi, Piva, Kolasin and Plav.

Monasteries Ostrog, Piva and Djurdjevi Stupovi are marked off among important objects for religious tourism development by attractiveness and number of visitors. More active involvement of these objects into tourism offer within northern Montenegro seen as a supplement to current tourism modes number of visitors in the region could be significantly increased.

Considering potentials and possibilities, health tourism has not been developed properly within this region. Current capacities have been made only in seaside region while other regions do not have developed this mode of tourism.

Spatial complexes that are according to available resource important for tourism development in northern region are shown in table 6.20.

Table 6.20: Spatial complexes for tourism development in northern region of Montenegro

<table>
<thead>
<tr>
<th>Region – tourist center</th>
<th>Small zone</th>
<th>Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niksic</td>
<td>Morakovo, Krnovo</td>
<td>Niksic, Danilovgrad</td>
</tr>
<tr>
<td>Piva</td>
<td>Smrijecmo, Volujak, Maglić, Pivska planina</td>
<td>Pluzine</td>
</tr>
<tr>
<td>Savnik</td>
<td>Bijela, Strug</td>
<td>Savnik, Niksic, Boan</td>
</tr>
<tr>
<td>Durmitor</td>
<td>Zabljak, Gornja Bukovica</td>
<td>Zabljak, Šavnik</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>Kosanica, Ljubisnja</td>
<td>Pljevlja, Brodarevo</td>
</tr>
<tr>
<td>Bjelasica</td>
<td>Jezerine, Jelovica, Kurikuze, Vragodo, Majstorovina</td>
<td>Kolasin, Mojkovac, Bijelo Polje, Berane, Andrijevica</td>
</tr>
<tr>
<td>Rozaje</td>
<td>Cmiljevica, Hajla</td>
<td>Rozaje, Berane</td>
</tr>
<tr>
<td>Andrijevica</td>
<td>Komovi, Zeletin, Mokra</td>
<td>Andrijevica, Berane</td>
</tr>
<tr>
<td>Plav</td>
<td>Bor and Visitor</td>
<td>Plav, Gusinje</td>
</tr>
</tbody>
</table>

Source: Mountain tourism development program, Ministry tourism, 2005, page. 24

Majority of tourism turnover is achieving in south region of Montenegro regardless all resources that northern region disposes with. According to 2006 data from all tourists that have visited Montenegro around 4.0% have visited her northern region. Zabljak and Kolasin were two municipalities with almost 65.5% of visits from tourists that came to northern sub-region making almost the same percentages of night stays (69.8%). The highest number of night stays was in Zabljak (50.2%)
Table 6.21: Number of tourists night stays and arrivals in the northern region of Montenegro (2006)

<table>
<thead>
<tr>
<th></th>
<th>OVERNIGHTS</th>
<th>Share in northern sub-region night stays</th>
<th>Arrivals</th>
<th>Share in arrivals of the northern sub-region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>0</td>
<td>0,0%</td>
<td>0</td>
<td>0,0%</td>
</tr>
<tr>
<td>Berane</td>
<td>2,323</td>
<td>2,5%</td>
<td>1,679</td>
<td>4,4%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>9,945</td>
<td>10,5%</td>
<td>3,501</td>
<td>9,3%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>47,307</td>
<td>50,2%</td>
<td>16,275</td>
<td>43,1%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>18,575</td>
<td>19,7%</td>
<td>8,441</td>
<td>22,4%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>5,714</td>
<td>6,1%</td>
<td>3,700</td>
<td>9,8%</td>
</tr>
<tr>
<td>Plav</td>
<td>0</td>
<td>0,0%</td>
<td>0</td>
<td>0,0%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>1,075</td>
<td>1,1%</td>
<td>766</td>
<td>2,0%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>7,921</td>
<td>8,4%</td>
<td>2,505</td>
<td>6,6%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>1,239</td>
<td>1,3%</td>
<td>688</td>
<td>1,8%</td>
</tr>
<tr>
<td>Savnik</td>
<td>228</td>
<td>0,2%</td>
<td>192</td>
<td>0,5%</td>
</tr>
<tr>
<td><strong>Northern sub region</strong></td>
<td><strong>94,327</strong></td>
<td><strong>100,0%</strong></td>
<td><strong>37,747</strong></td>
<td><strong>100,0%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>230</td>
<td>0,2%</td>
<td>223</td>
<td>0,6%</td>
</tr>
<tr>
<td>Niksic</td>
<td>35,826</td>
<td>38,0%</td>
<td>7,769</td>
<td>20,6%</td>
</tr>
<tr>
<td><strong>Northern region</strong></td>
<td><strong>130,383</strong></td>
<td><strong>138,2%</strong></td>
<td><strong>45,739</strong></td>
<td><strong>121,2%</strong></td>
</tr>
<tr>
<td><strong>Montenegro</strong></td>
<td><strong>5,936,270</strong></td>
<td><strong>6293,3%</strong></td>
<td><strong>953.928</strong></td>
<td><strong>2527,2%</strong></td>
</tr>
</tbody>
</table>

*Source: MONSTAT*

Accommodation capacities in northern sub region in 2006 were about 2.5% from the total accommodation capacities in Montenegro. More than half (62.2%) of accommodation capacities in northern sub region are in municipalities of Zabljak, Kolasin and Berane. The highest capacity in northern region measured by bed numbers is in Municipality of Zabljak (34.4% of total northern region capacities).

Table 6.22: Tourism capacities of northern region, 2006

<table>
<thead>
<tr>
<th></th>
<th>Number of bed</th>
<th>Participation in northern sub region</th>
<th>Hotels and restaurants 11</th>
<th>Participation in northern sub region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrijevica</td>
<td>99</td>
<td>3,3%</td>
<td>1</td>
<td>0,7%</td>
</tr>
<tr>
<td>Berane</td>
<td>294</td>
<td>9,8%</td>
<td>17</td>
<td>11,3%</td>
</tr>
<tr>
<td>Bijelo Polje</td>
<td>153</td>
<td>5,1%</td>
<td>69</td>
<td>46,0%</td>
</tr>
<tr>
<td>Zabljak</td>
<td>1,033</td>
<td>34,4%</td>
<td>13</td>
<td>8,7%</td>
</tr>
<tr>
<td>Kolasin</td>
<td>532</td>
<td>17,7%</td>
<td>5</td>
<td>3,3%</td>
</tr>
<tr>
<td>Mojkovac</td>
<td>105</td>
<td>3,5%</td>
<td>6</td>
<td>4,0%</td>
</tr>
<tr>
<td>Plav</td>
<td>274</td>
<td>9,1%</td>
<td>6</td>
<td>4,0%</td>
</tr>
<tr>
<td>Pluzine</td>
<td>40</td>
<td>1,3%</td>
<td>1</td>
<td>0,7%</td>
</tr>
<tr>
<td>Pljevlja</td>
<td>179</td>
<td>6,0%</td>
<td>17</td>
<td>11,3%</td>
</tr>
<tr>
<td>Rozaje</td>
<td>233</td>
<td>7,8%</td>
<td>12</td>
<td>8,0%</td>
</tr>
<tr>
<td>Savnik</td>
<td>57</td>
<td>1,9%</td>
<td>3</td>
<td>2,0%</td>
</tr>
<tr>
<td><strong>Northern sub region</strong></td>
<td><strong>2,999</strong></td>
<td><strong>100,0%</strong></td>
<td><strong>150</strong></td>
<td><strong>100,0%</strong></td>
</tr>
<tr>
<td>Danilovgrad</td>
<td>62</td>
<td>2,1%</td>
<td>7</td>
<td>4,7%</td>
</tr>
<tr>
<td>Niksic</td>
<td>477</td>
<td>15,9%</td>
<td>75</td>
<td>50,0%</td>
</tr>
<tr>
<td><strong>Northern region</strong></td>
<td><strong>3,538</strong></td>
<td><strong>118,0%</strong></td>
<td><strong>232</strong></td>
<td><strong>154,7%</strong></td>
</tr>
<tr>
<td><strong>Montenegro</strong></td>
<td><strong>120.270</strong></td>
<td><strong>4.010,3%</strong></td>
<td><strong>1.356</strong></td>
<td><strong>904,0%</strong></td>
</tr>
</tbody>
</table>

Hotels and restaurants in northern sub region make 11.1% from the total number of hotels and restaurants in 2006 according to MONSTAT data's. Majority of hotels and restaurants in northern sub region is
in Municipality of Bijelo Polje. Significant part of accommodation capacities in northern region has Municipality of Niksic who has one third out of total number of hotels and restaurants in northern region.

Capacity usage measured by rooms’ occupancy in hotels is on a very low level in northern region. Compared to Montenegro in general difference is significant.

Table 6.23: Tourist capacities usage

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooms occupancy in northern sub region</td>
<td>11.3%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>36.8%</td>
<td>40.8%</td>
</tr>
</tbody>
</table>

Source: Horwath Hotel Industry Survey Montenegro, 2006, Ministry tourism

As hotel industry in northern region is mainly based on skiing and mountain tourism and that is a basic reason for low usage of capacities in this part of the country.

The main obstacle for northern regions tourism development is bad road infrastructure that is in a very bad condition. Future development and reconstruction of existing traffic infrastructure is basis for future development of northern region. Second infrastructure problem relates to very low development level of communal and technical infrastructure. Important element of infrastructure is electrification. There is a problem with these municipalities energy supply especially during bad weather conditions.

Hotel capacities within this region are improving by new hotels openings especially in Kolasin. Nevertheless, in sense of further development it is important to reconstruct existing and build new hotel capacities.
7. CONCLUSIONS AND RECOMMENDATIONS

Socio-economic analysis of the northern region and especially of the northern sub region has shown following:

The northern region and sub region have significant amount of natural resources (mountain, rivers, waters, climate, and ore) which haven’t been significantly economically valorized and used. Nevertheless, they represent significant future developing basis of this region.

Within the northern region there is developed network of main, regional and local roads. Nevertheless, these roads quality and condition is in a very bad shape and emergence investments are required.

Transition process, economic recession and happening in Montenegro in the previous 15 years brought to poorness and decrease of population of the northern region’s and especially northern sub region’s municipalities. The northern sub region municipalities’ registers negative demographic trends – decrease of birth and migration towards more developed parts of the country mainly to Podgorica and seaside municipalities as well as to other countries.

Unemployment caused by economic recession is more present in the northern region because theirs trend on country level are mainly recorded in industry sector which have had significant share in business activities of the northern region.

Gross domestic product achieved in the northern region is about 25% of GDP in Montenegro while northern sub region’s GDP is approximately 12% of Montenegro’s GDP which is in quite disproportion with regions’/sub region’s size in sense of area and number of inhabitants.

Foreign investors’ interest for the northern sub region is, even if it is slightly higher observing northern region in total, on a very low level. Also, interest of domestic investors is also on non satisfactory level.

According to northern region’s business sector opinion codes that regulate business are quite unfavorable on local level comparing to national level and represents significant barrier for business development.

The northern region and especially northern sub region dispose with significant potential for agriculture and tourism development and those potential aren’t sufficiently used.
II PART

PROJECT SWOT ANALYSES IN NORTHERN REGION OF MONTENEGRO
## STRENGTHS OF THE NORTHERN REGION

<table>
<thead>
<tr>
<th>GEOGRAPHICAL LOCATION AND COMMUNICATION INFRASTRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication infrastructure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NATURAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest resources</td>
</tr>
<tr>
<td>Forest fruits and medical herbs</td>
</tr>
<tr>
<td>Waters</td>
</tr>
<tr>
<td>Mineral resources (mine)</td>
</tr>
<tr>
<td>Pastures</td>
</tr>
<tr>
<td>Agricultural land</td>
</tr>
<tr>
<td>Mountains</td>
</tr>
<tr>
<td>Rivers and lakes</td>
</tr>
<tr>
<td>Mineral resources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECONOMIC RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial infrastructure</td>
</tr>
<tr>
<td>Primary wood industry</td>
</tr>
<tr>
<td>Hydro energy resources</td>
</tr>
<tr>
<td>Winter and sports potential of tourism</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTOCHTON PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alimentary products</td>
</tr>
</tbody>
</table>
## Weaknesses of the Northern Region

<table>
<thead>
<tr>
<th>ROAD INFRASTRUCTURE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad quality of the roads</td>
<td></td>
</tr>
<tr>
<td>ECONOMIC INFRASTRUCTURE</td>
<td>Idle growth in capacity</td>
</tr>
<tr>
<td></td>
<td>Outdated technology</td>
</tr>
<tr>
<td></td>
<td>Lack of development in the manufacturing industry</td>
</tr>
<tr>
<td></td>
<td>Illegal objects production</td>
</tr>
<tr>
<td>NATURAL RESOURCES</td>
<td></td>
</tr>
<tr>
<td>Insufficient protection of the environment</td>
<td></td>
</tr>
<tr>
<td>Irregular forestry management</td>
<td></td>
</tr>
<tr>
<td>Inefficient use of natural resources</td>
<td></td>
</tr>
<tr>
<td>The most of manufacturers in are producing semi products.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUSINESS ENVIRONMENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of spatial planning documentation</td>
<td></td>
</tr>
<tr>
<td>Idle human potential</td>
<td></td>
</tr>
<tr>
<td>Lack of market regulation</td>
<td></td>
</tr>
<tr>
<td>Lack of entrepreneurial spirit and tradition</td>
<td></td>
</tr>
<tr>
<td>High price of capital (high interest rate, short grace period)</td>
<td></td>
</tr>
<tr>
<td>Irregular development levels within the region</td>
<td></td>
</tr>
<tr>
<td>Poor legislation at the local level</td>
<td></td>
</tr>
<tr>
<td>Migration from rural to urban settlements</td>
<td></td>
</tr>
<tr>
<td>Lack of loyal competition in the agricultural market</td>
<td></td>
</tr>
<tr>
<td>Weak purchasing power of the population</td>
<td></td>
</tr>
</tbody>
</table>
## OPPORTUNITIES

### AGRICULTURE

<table>
<thead>
<tr>
<th>Activity</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle-farming</td>
<td>- market demand for healthy cattle products</td>
</tr>
<tr>
<td></td>
<td>- evasion from genetically modified meat and meat processed products</td>
</tr>
<tr>
<td>Beekeeping</td>
<td>- increasing demand for honey and honey products (alimentary products and medicaments)</td>
</tr>
<tr>
<td>Fruit production</td>
<td>- demand for organically produced fruit</td>
</tr>
<tr>
<td>Vegetables production</td>
<td>- thermal energy usage</td>
</tr>
<tr>
<td></td>
<td>- greenhouse production</td>
</tr>
</tbody>
</table>

### TOURISM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountains</td>
<td>- winter tourism development</td>
</tr>
<tr>
<td>Rural tourism</td>
<td>- rural tourism development based on a national cuisine</td>
</tr>
<tr>
<td></td>
<td>- natural resources</td>
</tr>
<tr>
<td>Rivers</td>
<td>- rafting on the Tara river</td>
</tr>
<tr>
<td>National parks</td>
<td>- National parks development</td>
</tr>
<tr>
<td>Wild Beauty brand</td>
<td>- taking advantage of it</td>
</tr>
<tr>
<td>Increase in road quality</td>
<td>- precondition for tourism development as well as other sectors is the quality of roads.</td>
</tr>
</tbody>
</table>

### INDUSTRY

<table>
<thead>
<tr>
<th>Activity</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle industrial areas</td>
<td>- lack of new industrial zone development</td>
</tr>
<tr>
<td>Corporate development</td>
<td></td>
</tr>
<tr>
<td>Special sector development</td>
<td></td>
</tr>
</tbody>
</table>

### ENERGY

<table>
<thead>
<tr>
<th>Activity</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small hydro-electric power plant</td>
<td>investment</td>
</tr>
<tr>
<td>Construction</td>
<td>- of second thermo-electric power plant block (in Pljevlja)</td>
</tr>
</tbody>
</table>

## THREATS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain drain – departure of a young, qualified labour force</td>
<td>- demographic aging</td>
</tr>
<tr>
<td>Market opening can lead to local manufacturers' downfall due to lack of competitive advantage.</td>
<td>- low competitiveness among companies</td>
</tr>
<tr>
<td>Absence of environmental awareness and proper policy can seriously endanger population's health and eliminate opportunities.</td>
<td>- lack of investor interests</td>
</tr>
</tbody>
</table>

## INTEGRAL SWOT MATRIX

### Strengths (S)

- Geographical location and infrastructure interconnection
- Natural resources
- Economic resources availability
- Autochthon products

### Weaknesses (W)

- Bad road infrastructure quality
- Underdeveloped economic infrastructure
- Underused natural resources and ineffective management
- Unfriendly business environment

### Opportunities (O)

- Agricultural development
- Tourism development
- Industrial development
- Energy development

### Threats (T)

- Demographic aging
- Low competitiveness among companies
- Lack of interest from investors
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