

## DELIVERABLE 6.5

# "The effect of structural change on subsistence farming and labour market - a case study of Bulgaria"

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## Executive Summary

The working paper analyses the main types of agricultural structures, the labour market in agriculture and rural areas and their development through the period 2003-2007 in Bulgaria.

Over the last years the tendency of decreasing the number of agricultural holdings in Bulgaria continued. The analysis shows that the Bulgarian agriculture is a typical example for dualistic structure: small number of large market-oriented commercial farms and large number of small-scale subsistence and semi-subsistence farms.

According to the economic size<sup>1</sup> of rural holdings in Bulgaria /2005/ the largest group is the group of small farms with size up to 4 ESU /more than 96%/. Further desegregation of this group shows that 77.9% of total number of holdings are in size up to 1 ESU /consider below as subsistence farms/ followed by farms having economic size 1 - 4 ESU /considered below as semi-subsistence farms/. Practically no changes have appeared over the period of 2005-2007. The distribution to marketed agricultural products shows that nearly 70% of the agricultural holdings in Bulgaria sell less than 50% of their output.

The agricultural sector is one of the last places by salaries amongst the other sector of Bulgarian economy, and although the wages are increasing yearly between 6% /2003/2004/ and 11% /2006/2007/ the difference between the wages in agriculture and on average for the economy increased. The family labour force is very important factor for agricultural development. The statistical data shows that 95% of the total labour in agriculture is family labour and this share is relatively stable over the period 2003 - 2007.

The results from the survey under the project STRUCTURAL CHANGE IN RURAL LIVELIHOODS /SCARLED/ show the increased importance of the agricultural sector as a means of living for the rural population. In all villages included in the survey it is still the most important option for employment. In some villages there are agricultural production cooperatives and small processing units, but they can not offer jobs to all potential employees and self-employment in small farms /subsistence and semi-subsistence/ is of crucial importance. The most important source of income in the surveyed rural regions is agriculture, but the earned income is insufficient and it is a common that at least some of the members in the family are pushed to look for jobs outside the village.

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<sup>1</sup> „Economic size” is expressed in European size unit /ESU/. ESU is a sum of SGMs for each farm activity and 1 ESU is equal to 1200 Euro SGM.

## SCARLED Consortium

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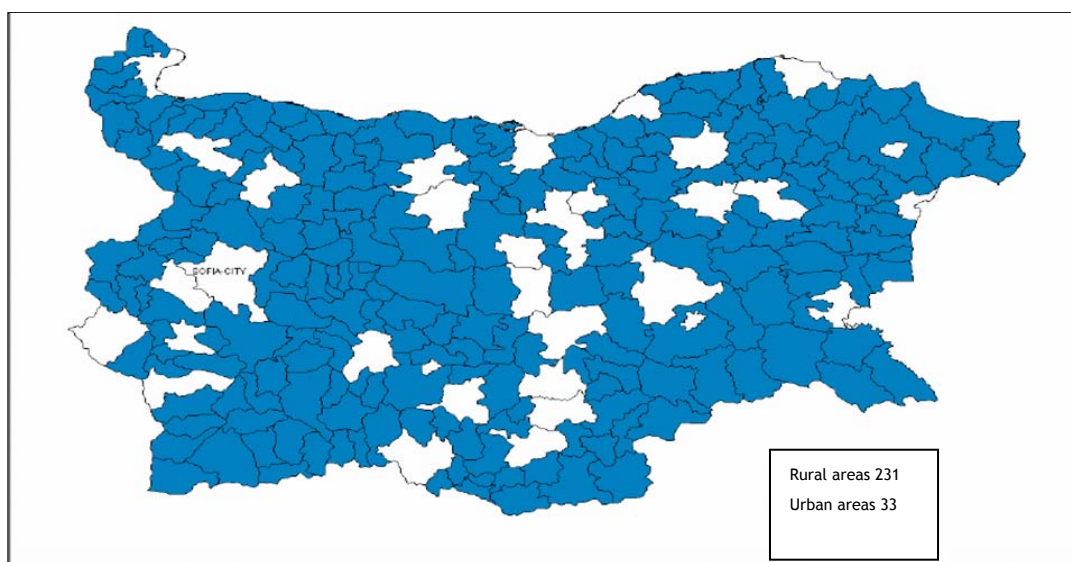
**LIST OF ABBREVIATIONS:**

CAP	Common Agricultural Policy
Dca	decare; 1 decare =1 000 sq.m.
ESU	European size unit
Ha	hectare
MAF	Ministry of agriculture and food
NSI	National Statistic institute
NUTS	Nomenclature of Territorial Units for Statistics
PK	Production cooperative
TKZS	Labour cooperative agricultural cooperative
TPK	Labour productive cooperative
UAA	Used agricultural area

## 1 INTRODUCTION

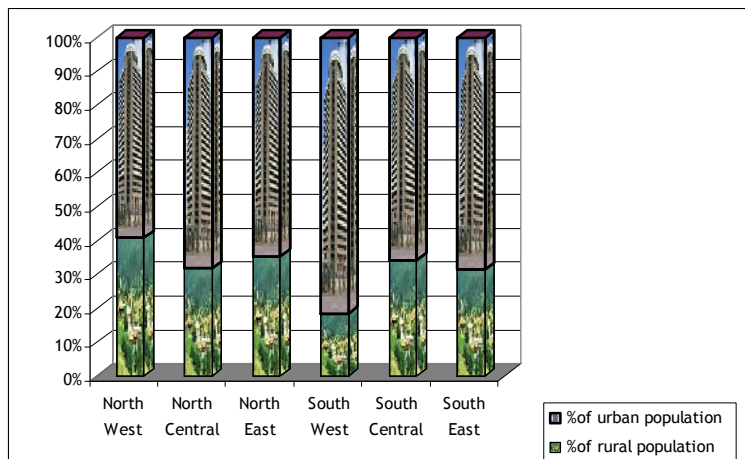
The rural areas in Bulgaria cover more than 80% of the total country area /Figure 1/ and account for about 29% /Figure 2/ of the population. The main characteristics of these areas are high unemployment rate, lower income compared to the country average, more severe negative trend in population growth than the average for the country, unfavourable age structure of the population and undeveloped infrastructure. The development of rural areas depends strongly on agricultural sector, and in many villages agriculture is the only way for earning income by the local people. As Figure 2 shows the rural population is not equally represented in the different regions of the country. The share of rural population is the highest in North West region /41%/ and the lowest in South West region /18%/. In other regions the share of rural population varies between 31% and 35%.

**Figure 1 Distribution of rural and urban areas in Bulgaria according national definition by LAU 1**



Source: [National Strategy Plan For Rural Development /2007-2013/](#)

**Figure 2 Distribution of Bulgarian population by regions/rural/urban/.**



Source: NSI 2006



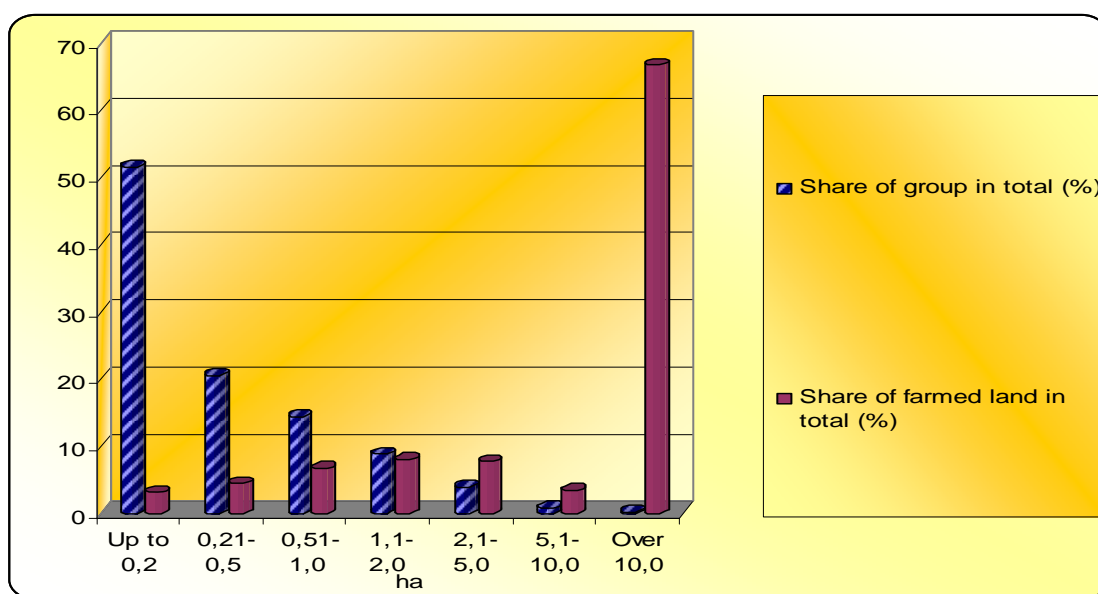
## 2 STRUCTURAL CHANGES IN BULGARIAN AGRICULTURE

### 2.1 Distribution of production structures by farmed land and legal status

The current structures in Bulgarian agriculture are result of the transformation period in early 90s. It was characterised by liquidation of collective's farms from the socialist period, restoration of land ownership to the owners or their heirs from pre-socialist period and privatisation of all assets in food chain. The result was emerging of dualistic agriculture- large market-oriented commercial farms on one hand and small-scale subsistence and semi-subsistence farming on the other. All the statistical data since 1992 confirm this conclusion. Data referring to 1996 are shown in figure 3.

From figure 3 it is evident that the farms up to 0.2 ha constitute more than 50% of the total number of farms, but they operate only 3.1 percents of the total arable land of the country. On the other side are the large farms /with more than 10 ha/ which are only 0.2 percent of the total number of farms but cultivate more than 65% of the land.

Figure 3 Distribution of the land by holdings in 1996

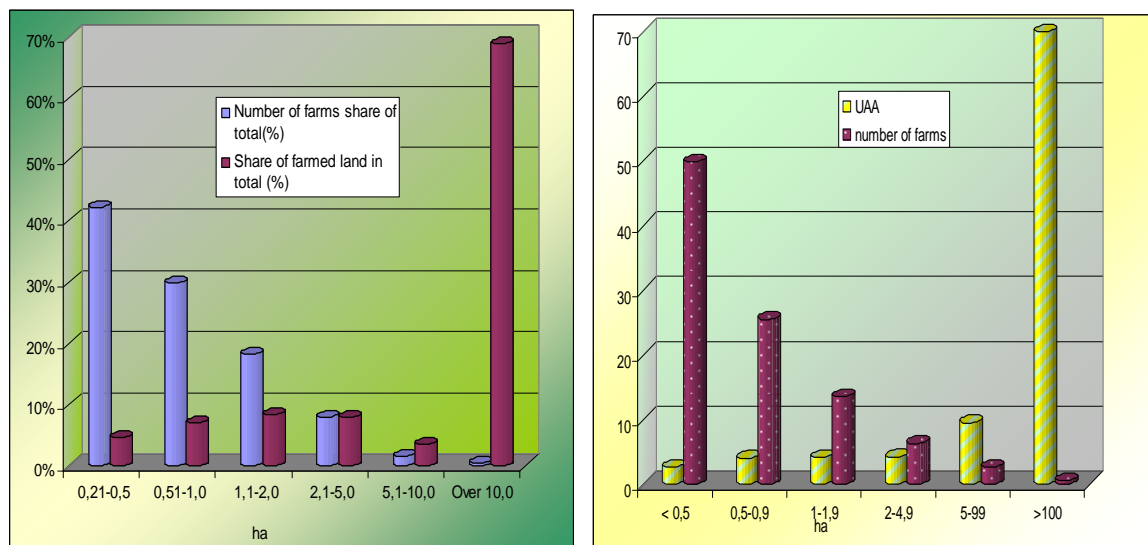


Source: NSI and European Commission /1998/

The agricultural census /2003/ provides another evidence for the existence of dualistic farm structure in Bulgaria. But it has to be mentioned that it is quite difficult to make a direct comparison with the previous year's farm data /in particular the number of farms/ due to the changes in the methodology for data collection. The basic difference refers to the definition of agricultural holdings thus excluding large number of small holdings from the total number of agricultural holdings. According to the adopted new methodology the census covers only agricultural holdings which correspond to the definition of **agricultural holding in Bulgaria**: "an independent economic unit, which: has not less than 5 dca /0.5 ha/ UAA or 3 dca /0.3 ha/ arable land; or not less than 2 dca /0.2 ha/ meadows or 1 dca /0.1 ha/ specialized crop". If 1996 data have to be adjusted to the 2003 methodology used

for the agricultural census /figure 4/ the number of farms in 1996 would be quite less, and as a result the share of small farms would be lower but their share of UAA is a bit higher.

**Figure 4 Distribution of the land by holdings in 1996 under the change in the definition of agricultural holdings and in 2003**



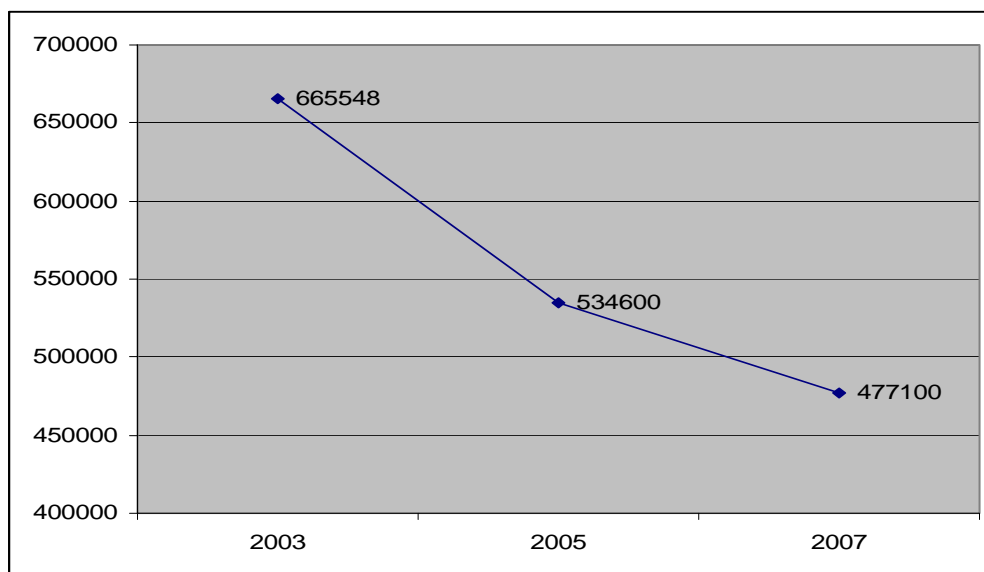
Source: own calculations and MAF 2003

Keeping in mind that not all small holdings have been counted due to the methodological changes mentioned above, according to the census the number of agricultural holdings operating in Bulgaria in 2003 were 665 500. The majority of these holdings /75%/ had up to 1 ha of land, and cultivated less than 7% of the total UAA. On the other hand, only 0.6% of the holdings were larger than 100 ha, but they farmed the majority of the UAA - 75.6% of total UAA.

A comparison of the adjusted data for 1996 and data for 2003 shows that the share of the number of small farms /with less than 0.5 ha of land/ increased over the period while the share of UAA cultivated by these farms decreased by 2.5%. At the same time the number of farms with size between 0.5 ha and 1 ha declined by nearly 5% and in UAA by 3%. Over the same period the share of large farms as absolute number as well as UAA increased. This shows that the process of polarisation of Bulgarian agriculture was very intensive during this period, mainly caused by general economic crisis and increased unemployment.

Over the last years the tendency of decreasing the total number of agricultural holdings in Bulgaria is observed /Figure 5/. Economic recovery, migration to cities and other EU countries, increased competition and crucial changes in food supply chain are some of the factors caused sharp decrease of numbers of agricultural holdings in Bulgaria and especially the small ones. Comparing the data from farm structure survey in 2005 with 2003 /MAF 2003, 2005/, a substantial reduction in agricultural holdings by 20% is observed: nearly 9% withdrew from agriculture, 2% temporarily stopped operations and another 9% reduced their size below the threshold for the agricultural holdings.

Figure 5 Number of farms by years 2003-2007



Source: MAF 2003, 2005, 2007

The results of agricultural census in 2007 about the structures in the agricultural sector show that the number of farm holdings in Bulgaria keeps decreasing and another drop of 11% in number of agricultural holdings is observed in 2007 compared to 2005. There is also some increase in total UAA /by 5%/ which is mainly due to the expectations for CAP support. The detailed data shows that the number of small farms with less than 0.5 ha of land remained relatively constant compared to 2005 but the UAA in those holdings decreased by nearly 30%. The number of farms with less than 5 ha of UAA decreased by more than 25%, while the UAA in those holdings declined by more than 30%. At the same time the number of large farms /with more than 100 ha of land/ increased by nearly 2% while the UAA increased by 5%. As a result there is a substantial decrease in the average size of small farms by 28% and increase in the average size of large farms by 4%. These figures show that the process of polarisation of the farm structure in the country continued, and the importance of small farms from the point of view of cultivated land declined.

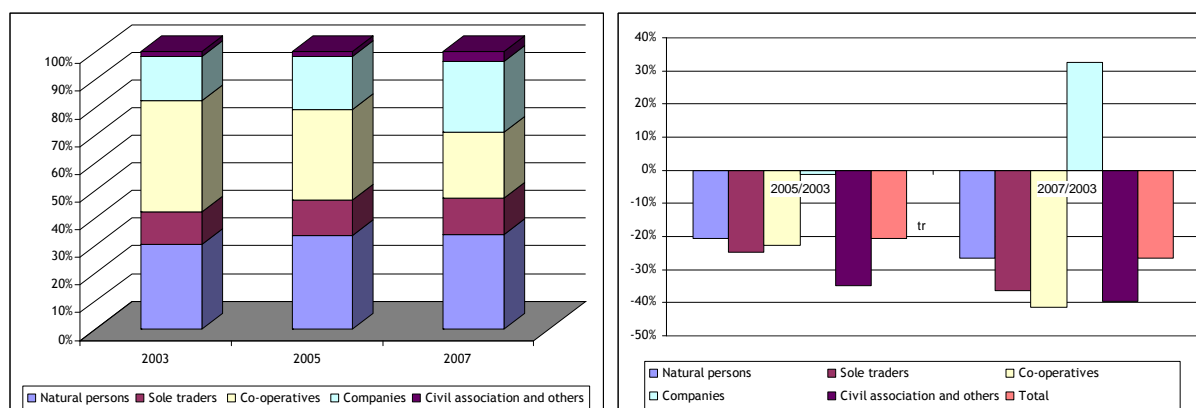
Having in mind the above analysis some conclusions could be outlined: two clearly distinguished periods of farm structures development can be observed. The first one from the beginning of transition till 2003 and the second period - from 2003 to 2007. The first sub-period is characterized with increase in the total number of farms as well as increase in number of small farms. The area cultivated by small farms remained relatively constant as the average size of those farms declined. At the same time the number of large farms remained relatively constant as the average size increased. In the second period a substantial reduction in the total number of farms is observed. The number as well as the average size of small farms declined. Unfavourable agricultural policy and age structure of rural population lead to accelerated process of decreased number of small farmers as most of them stopped farming. This is proved by increased of fallow land, especially in mountain and semi-mountain areas.

On the opposite the share of large farms increased as in number of farms as well as in UAA. This process was mainly forced by the expectation of joining the EU and in particular by

expectations of higher level of support associated with the EU membership as well as to market factors.

Over the period 2003-2007 some changes of the legal status of the farms holding are also observed. These changes are shown in figure 6.

**Figure 6 Distribution of UAA and change in number of farms by legal status of the holding 2003-2007**



Source: MAF 2003, 2005, 2008 own calculation

As seen from Figure 6 the most substantial change is the decline in number of co-operatives /41.4%/ followed by the civil associations and others /39.7%/. Over the period a substantial re-distribution of land among the different legal types is observed as the area cultivated by coops declined by nearly 38% while the land used by all other types of farms increased. The most substantial increase was observed in the land used by farms registered as companies which rented land from cooperatives and leaving small farmers. As a result of these changes the average size of all types of farms increased, with this trend being strongest for the categories "civil associations" and "others".

## 2.2 Regional distribution of production structures

The distribution of farms in Bulgaria by planning regions is presented in table 1. From the regional point of view the changes in the absolute number of holdings as well as their average size follow the changes at national level but by different degree. During the period 2003-2007 in all regions of Bulgaria a decreasing trend in the number of farms is observed. Most substantial are the changes in the South-East region where the number of farms declined by 37%. The smallest decrease is observed in the number of farms in North-West region: less than 19%.

These figures show that there are differences in the speed of the process of restructuring of the Bulgarian agriculture on a regional basis but the direction is the one: reduction the number of holdings and increase of their average size due to the influence of already mentioned factors.

**Table 1** Changes in the number of holdings by regions - base 2003

Regions - years	Variation of numbers holding on base 2003	
	2005	2007
Bulgaria	-20%	-28%
North West	-16%	-19%
North Central	-22%	-29%
North East	-17%	-28%
South West	-24%	-29%
South Central	-18%	-23%
South East	-21%	-37%

Source: MAF 2003, 2005, 2008 -own calculations

Despite the prevailing number of small scale farmers in all regions, the large scale producers cultivated in this period /2005/ more than 60% of the arable land and they also produced the main part of the agricultural commodities.

### 2.3 Distribution of production structures by economic size

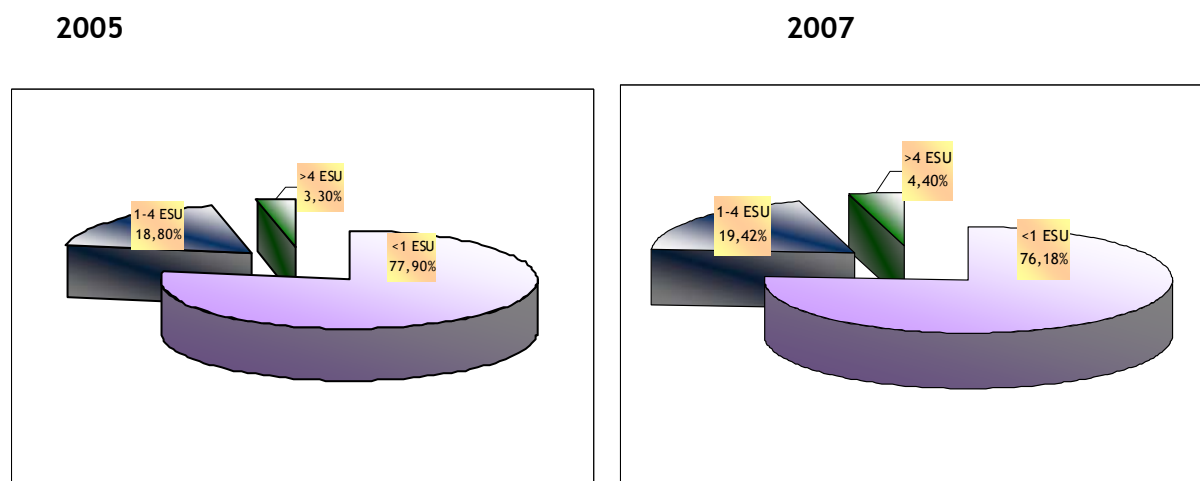
No data for the size of farm holdings are available before 2005. According to the 2005 data /Figure 7/, the largest group consists of small farms with size up to 4 ESU /more than 96%. Further disaggregation of this group shows that 77.9% of the total number of holdings are up to 1 ESU /referred below as subsistence farms/ followed by farms having economic size 1 - 4 ESU /referred below as semi-subsistence farms - 18,8% /Figure 7/. Following the changes in farm structures based on land used in 2007 the share of large farms /with economic size above 4 economic units/ increased from 3.2% in 2005 to 4.4% while the share of small farms declined to 76,1%. Slight increase in the share of semi-subsistence farms is also observed /by 0.6%/. Considering the relative changes of the three groups of farms it has to be taken into account that the total number of farms over this period declined substantially. Thus, despite that the changes in the shares do not look substantial, in absolute terms they are. The drop in the number of subsistence farms is 10% while the increase in number of large farms is 25%.

If more disaggregated data is considered it becomes evident that the decline in the share of subsistence farms is mainly due to the reduction of number of farms between 0.5 and 1 economic units /17% reduction in numbers/. The not so drastic change in the share of semi-subsistence farms is due to the increase in number of farms with economic size

between 2 and 4 economic units which compensate to a large extent the reduction in number of farms with economic size between 1 and 2 economic units.

The changes in economic size of farms indicate that a process of transforming of part of semi-subsistence into commercial farms could be observed. The number of subsistence farms declined and the importance of these farms from production point of view also decreased.

**Figure 7 Distribution of holdings by economical size - 2005 and 2007**



Source: MAF 2005<sup>2</sup>, 2007

## 2.4 Distribution of production structures by percentage of sales and farm typology

Another indicator under which the agricultural holdings could be analysed is the share of sales in the total production of a farm. The structure of holdings by the share of sales is shown in table 2. As seen from the table nearly 70% of agricultural holdings sell less than 50% of their output. Only about 3,5 percent of holdings sell 100% of their total inputs.

<sup>2</sup> [http://www.mzgar.government.bg/StatPazari/Agrostatistika/pdf/Publication\\_FSS\\_2005\\_pdf/1\\_FFS\\_2005-TABLES-REVIEW-1-General\\_characteristics.pdf](http://www.mzgar.government.bg/StatPazari/Agrostatistika/pdf/Publication_FSS_2005_pdf/1_FFS_2005-TABLES-REVIEW-1-General_characteristics.pdf)

**Table 2 Structure of holdings by the share of sales in production for the 2004/2005 and 2006/2007 crop years**

	share of farms which sell less than 50%	share of farms with 100% marketed production	share of farms which sell less than 50%	share of farms with 100% marketed production
	2004/2005		2006/2007	
Bulgaria	68.8	3.6	69.8	3.3
North West	85.3	1.2	86.1	1.5
North Central	82.0	1.9	71.3	3.4
North East	64.2	3.6	67.7	4.3
South East	75.8	4.8	70.8	2.3
South Central	52.4	5.3	50.0	5.8
South West	76.8	2.7	82.2	1.4

Source: Agricultural census in Bulgaria 2005, 2007

At national level no substantial changes in the structure of farms based on sales is observed, but at regional level there are changes. The share of farms selling less than 50% of the output in North Central region declined substantially followed by South East region while in all other regions the share of farms selling less than 50% increased. In all regions, with exception of South East and South West, the share of farms selling 100% of the output increased. The results above show that the subsistence farms /selling less than 50% of the output/ are most important in North West region followed by the South West region as the importance of subsistence farms in these regions increased. This could be explained by the fact that the two regions have the lowest GDP per capita and unemployment rate is among the highest<sup>3</sup>. Just the opposite is the situation in South Central region in which the importance of subsistence farms declined over the period of observation.

The conclusion that could be drawn from the above analysis is that the process of restructuring of farms with respect to the share of sales is different by regions and depends highly on the specific economic situation there.

Farm typology is another criteria to classify the Bulgarian farmers /Table 3/. As seen from the table substantial development of farms toward the specialisation<sup>4</sup> is observed. The share of specialized farms have increased during the period 2003-2007 by 14% as at the end of the period more than 50% of farms are specialised whether in crop production or in livestock production. Substantial reduction in the share of non-specialised livestock farm is also observed while the share of not specialised crop farms remained relatively stable.

<sup>3</sup> Excluding Sofia from the South West region

<sup>4</sup> The farm type is defined following the classification rules stipulated in decision 85/377, annex II of the EU, according to which partial Standard gross Margin (SGM) by crop and category of livestock. The farm is specialized in a given activity if the partial SGM of this activity represents at least 2/3 of the total SGM of the holding.



Substantial increase in mixed crop and livestock farms is also observed particularly over the period 2003-2005. More disaggregated data shows that nearly all of them /90%/ are small farms /with economic size less than 4 economic units/ as 32% of them are with size less than 0.5 economic units.

**Table 3 Structure of farms by type of specialization**

Type of farm	2003	2005	2007
Specialised crop farms	18%	21%	27%
Specialised livestock farms	26%	32%	31%
Not specialized crop farms	10%	8%	10%
Not specialized livestock farms	36%	22%	15%
Mixed crop and livestock farms	9%	16%	17%
Not classified farms	0%	0%	0%

Source: Agricultural census in Bulgaria 2005, 2007

Having in mind the above analysis of farm structure developments over the period observed the following conclusions could be drawn:

There are two sub-periods in farm structure development in Bulgaria. In the first sub-period the total number of farms as well as the number of small farms increased. The area cultivated by small farms remained relatively constant and the average size of those farms declined. At the same time the number of large farms remained relatively constant but their average size increased. This is mainly a result of completing the land restitution process and returning the land to the ex-owners. Another reason for the increase in the number of small farms is the low level of income of the population, which press people to cultivate their returned land for providing food for the household. In the second period a substantial reduction in the total number of farms is observed. The number as well as the average size of small farms declined while the share of large farms increased as in number of farms as well as in UAA. This process is mainly forced by economic recovery and the expectation of joining the EU and in particular by expectations of higher level of support associated with the EU membership.

1. The process of polarisation of the farm structure in the country continued over the whole period, but the importance of small farms from the point of view of cultivated land declined in the last years.



- 
2. There are substantial differences in the speed of the process of restructuring of Bulgarian agriculture by regions but the direction is the same: reduction of holdings number and increasing the average size
  3. Decline in the share of subsistence farms in the second period is mainly due to the reduction of number of farms between 0,5 and 1 economic units. Negative change is also observed in respect to the share of semi-subsistence farms with size 1 ESU.
  4. A process of transforming of part of the semi-subsistence into commercial farms could be observed, although not clearly outlined and stable. There is some increase in the number of farms with size between 2 and 4 ESU which could be considered as a good potential for further development.
  5. At national level no substantial changes in the process of restructuring of farms in respect to the share of sales is observed but from regional point of view there are substantial differences which depend highly on the economic situation of the regions.
  6. A process of specialization of farms is observed over the last years as practically nearly all mixed farms are subsistence farms as one third of them are with size less than 0.5 economic units.

### 3 LABOUR FORCE AND INCOMES IN THE AGRICULTURAL SECTOR OF BULGARIA

#### 3.1 Income from agricultural activities in Bulgaria

The income in the agricultural sector in Bulgaria has been one of the lowest compared to the other sectors of the economy over the period of observation. Generally the agricultural income is about 27% - 30% lower than the average in the country /Table 4/.

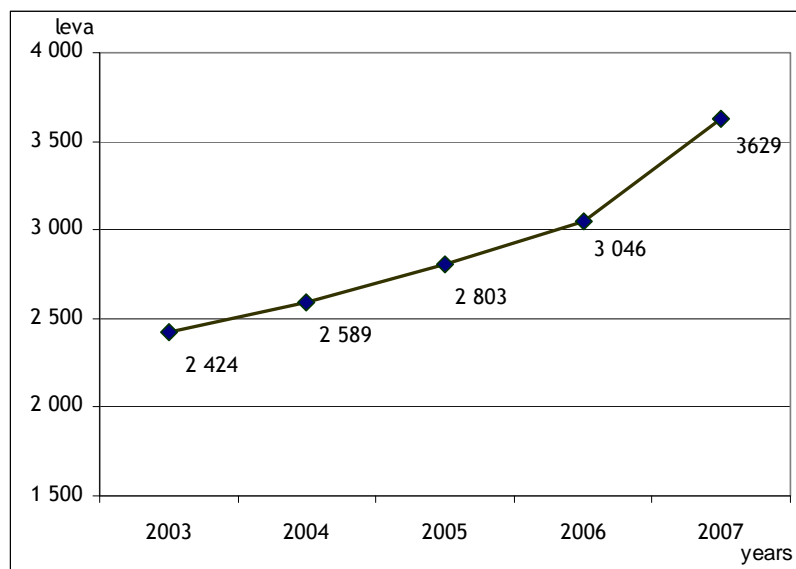
**Table 4 Average Annual Wages and Salaries of the Employees under Labour Contract by Economic Activity Groupings in 2006**

Economic activity groupings	in leva			
	2003	2005	2006	2007
<b>Total</b>	<b>3280</b>	<b>3885</b>	<b>4 324</b>	<b>5174</b>
Agriculture, hunting, forestry and fishing	2424	2803	3 046	3629
Mining and quarrying	5407	6414	7 078	2544
Manufacturing	2935	3474	3 844	4708
Electricity, gas and water supply	6137	6895	7 774	8865
Construction	2788	3210	3 577	4348
Trade, repair of motor vehicles and personal and household goods	2413	3008	3 444	4207
Hotels and restaurants	1948	2429	2 668	3495
Transport, storage and communication	4108	4772	5 314	6597
Financial intermediation	7508	9051	9 831	11998
Real estate, renting and business activities	2985	3891	4 662	5115
Public administration; compulsory social security	5182	5737	6 368	7644
Education	3567	4068	4 544	5186
Health and social work	3567	4543	4 687	5487
Other community, social and personal service activities	2324	2912	3 330	4161

Source: NSI 2007

The price of labour per hour is also among the lowest and is with 35% lower than the national average. The analysis of the agricultural sector salaries in nominal term shows an increasing trend over the last few years /figure 8/. Over the period 2003-2007 the increase in agricultural income is 49.7% while the increase in salary in the economy as a whole is 57.7%. Although the agricultural income shows stable increase over the period it remains among the lowest in the economy as the difference in salaries in agriculture and on average for the economy increased.

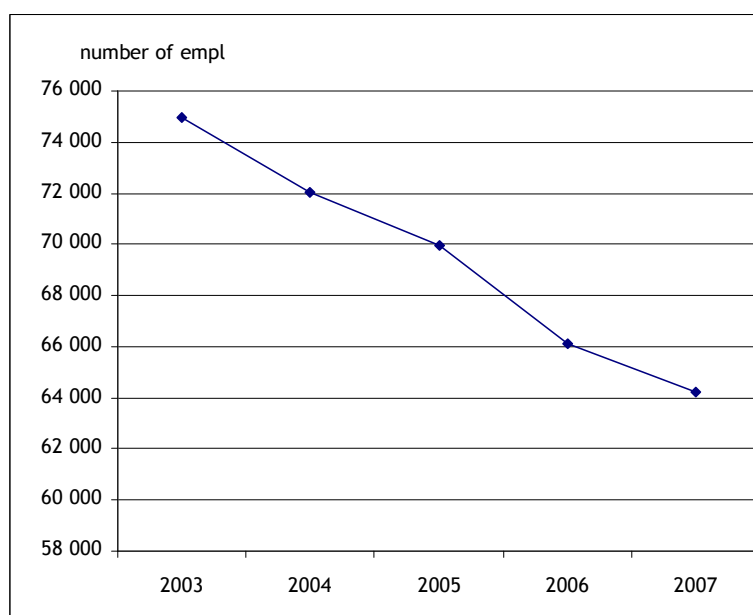
**Figure 8 Average Annual Wages and Salaries of the Employees under Labour Contract  
Agriculture, hunting, forestry and fishing 2003-2007**



Source: NSI 2003-2007

Over the period 2003-2007 substantial changes are observed in the labour force in agriculture. The number of employees in the sector shows steady reduction /Figure 9/ as by the end of the observed period it is 14.9% lower than at the beginning of the period. This is the same trend as the trend observed in the number of farm holdings, which means that the decrease in number of employees in agriculture is due to the reduction in number of farms.

**Figure 9 Employees Under Labour Contract in Agriculture, hunting, forestry and fishing  
2003-2007**



Source: NSI year 2003-2008

Unemployment rate is another important indicator of labour market. In the past few years the unemployment rate shows a decreasing trend and in dropped down from 13.3% in 2003 to 6.9% in 2007. But it has to be mentioned that the unemployment rate in the villages is much higher than the average at national level. Thus in 2003 the unemployment rate in villages was 16.3% and in 2007 it was 11.4%. Generally the unemployment rate in villages follows the same trend as at national level but remain at higher level. In respect to the duration of unemployment the coefficient of average unemployment expectancy in the villages is much higher than on average for the country.

According to analysis above we can make the following conclusions:

1. The agricultural sector is on one of the last places by salaries amongst the other sector of Bulgarian economy, and although the wages are increasing yearly between 6% /2003/2004/ and 11% /2006/2007/ the difference between the wages in agriculture and on average for the economy increased.
2. The number of employees in the sector is decreasing, which may lead to structural changes in the sector.
3. The unemployment rate in the villages is higher than the national level. Having in mind the decreasing trend in number of employees in the sector /the major economic activity in villages/ this could make the situation more difficult.

### 3.2 Labour market situation in villages covered by the SCARLED survey

Results are based on survey carried out within the framework of European project Structural Change in Agriculture and Rural Livelihoods /SCARLED/ in the period end of 2007/2008. Table 5 and Table 6 show some basic characteristics of the selected regions according to the selected criteria.

**Table 5 Selection of survey regions and districts in Bulgaria**

Districts /NUTS 3/	Area - sq. km	Population density - persons/sq. km	Towns - number	Villages - number	Degree of economic development
Veliko Tarnovo	4661,6	60,8	14	322	Average
Pazardzhik	4456,9	66,8	13	104	Lagging behind
Burgas	7748,1	54,0	17	240	Prosperous

Source: NSI 2006

**Table 6 Distribution of villages by districts**

NUTS 2 Raion	NUTS 3 Oblast	Obshtina	Villages, towns
South Central	Pazardzik	Pazardzik	Gelemenovo Kostandovo Dorkovo
South East	Burgas	Karnobat	Nevestino Krumovo Gradishte Ekzarh Antimovo
North Central	Veliko Tarnovo	Pavlikeni Pavlikeni Svishtov	Nedan Karajsen Morava

Source: SCARLED database

For better understanding of the possibility of employment of the villages /table 7/, 9 mayors were interviewed. They described the villages and opportunities of employment are as follows:

#### **South Central region<sup>5</sup>:**

##### **Gelemenovo village**

This village is situated near the Thrakia highway, the longest one in Bulgaria, and 5 km from the district town Pazardzhik. The population is 790 inhabits /2006/, which is by 10 persons less than in 2003. The major economic activity is crops and livestock breeding. Until 1990 the village was known as a rice growing centre, but now rice growing no longer exist at all. The main reason for closing down the rice growing, by opinion of interviewed, is that this activity is unprofitable /due to the high price of water and for maintaining the irrigation canals/. Out of agricultural sector the people are working in the near town Pazardzhik. The people are involved also in seasonal work in agricultural activities. The unemployment rate is 6.5% /2006/ but in 2003 this number was higher. The main reason for decreasing unemployment rate are the programs in the village for seasonal workers. The perception of the opportunities to find employment is pessimistic. The annual income per capita is 1500 leva which is much lower then the minimal salary in Bulgaria /2880 leva in 2006/.

##### **Kostandovo /town/**

The town of Kostandovo is situated in Pazardzik district. The population is 4780 inhabits /2006/, or 10 people more compared to 2003. The unemployment rate is much lower than the average for the region /1.6%/ and the average income per capita is about 3500 /2006/ leva per year or by 20% higher than the minimum salary in Bulgaria. The major activities are small craftsmanship /mainly in wood processing sector/ and livestock breeding.

<sup>5</sup> See appendix 1

Vegetables are not traditional sector in this kind of villages and towns because they are mountainous and their natural conditions are mostly suitable for growing only potatoes.

#### **Dorkovo village**

The village of Dorkovo is situated near to Kostandovo. The population counts 2091 persons/2006/- an 11% decrease compared to 2003. Although the unemployment rate is only 1.8%/2006/ there is outmigration. This can be explained with the better opportunities for employment outside the village. The main agricultural activity is livestock breeding and in particular milk production. Four milk collection stations are situated in the village.

#### **South East region<sup>6</sup>**

##### **Krumovo Gradishte**

Krumovo Gradishte is part of Karnobat district. In 2003 the population was 750 inhabitants, but in the following few years it decreased to 440 /2006/. The lack of employment opportunities and the lower level of income in 2003 are the main reasons for migration. As a result a large number of unemployed people and their families left the village. By the end of the period the major employment is in the agricultural sector. The people involved in farm activities were better-off compared to those not involved in the sector. The farms are large and profitable. The annual income per capita is 6500 /2006/ leva which is higher than the national average. The unemployment rate is 2% - much lower than the average for the region. Outside the agricultural sector the people work in the construction sector. In the village are operating two cooperatives. One of them has a large tractor park station and fodder station.

##### **Ekzarh Antimovo**

Ekzarh Antimovo is the biggest village /by population/ in the district of Karnobat. The population is 1162 /2006/, but in 2003 it was 1312 inhabitants. The unemployment rate is 10% /2006/ nearly twice higher than for the region. The reason of this high unemployment rate is the liquidation of almost all firms and cooperatives in the village /TPK Chernomorska, TPK Nov Jivot, bakery/ which provided jobs for more than 500 people. Now the total number of workers those enterprises is only 50 employees. The average annual income in the village per capita is 3000 /2006/ leva. The agricultural sector is well developed including plant growing and live stock breeding. Survey data show that the presence of high percentage of gypsies population in the village which favours the development of the agricultural sector as they are presented as cheap labour. Moreover they have small plots of land in addition to raise crops for their own consumption. Gypsies can be defined as subsistence farmers.

##### **Nevestino**

Nevestino has 506 people in 2006, which is by 5% lower than 2003. The reason for decreasing population is mostly by negative demographic process. The unemployment rate is about 2%, but it has to be mentioned that the largest part of unemployment peoples are in pension age and the share of working age people is very low. There is one agricultural cooperative Nadejda in the village, with about 200 employees. The average annual income

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<sup>6</sup> See appendix 1

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per capita is much lower than the minimum salary in the country /1200 leva compared to 2880 leva/. The low income forces people to run farms. Livestock breeding is more developed than plant growing.

### North Central region<sup>7</sup>

#### Nedan

The village of Nedan is situated in Veliko Tarnovo district in North Central region. The population is 1560 /2006/ villagers which is much lower than in 2003 /1800 people/. Unemployment rate is 4% /2006/, and the annual average income per capita is 1200 leva /2006/. The agricultural sector and in particular the livestock sector provide the main employment. The farms specialise in poultry and pig breeding.

#### Karajesen

Karajesen is situated in Veliko Tarnovo district in North Central region. The population is 1463 /2006/ or by 13% lower than in 2003. The decline in population is mainly due to the demographic processes, but the migration particularly of young people is another reason for the negative growth. The average annual income per year is 2400 leva /2006/. In the village the unemployment rate is very high, about 12% /2006/. After 1990 many of the firms and cooperatives were liquidated, and they are still closed. There is a wine factory which relies on grapes from other regions and does not support vineyards. According to the respondent the grape price offered by the local winery is low and producers prefer to sell their output to middlemen. There is one cooperative Vazrajdan in the village with about 200 seasonal workers per year.

#### Morava

Morava has a population of 2300 inhabitants /2006/ while in 2003 the population were 2450. The unemployment rate is about 2% /2006/ and the annual income per capita is about 4800 leva /2006/ or nearly twice higher than the minimum income in the country. A few tailor workshops and a canning factory are the main enterprises providing job opportunities.

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<sup>7</sup> See appendix 1

**Table 7 Enterprises in villages and number of employees at the beginning of transition and by 2008**

Village	Name enterprise	Field of Activity	Workers Prior 1990	Workers After 1990-2008	What happened?
Gelemenovo	Evastroj EOOD	building materials	n/a	25	fragmented into small firms
Gelemenovo	Cooperative	paddy field	300	20	liquidated
Gelemenovo	Cooperative	paddy field	150	10	liquidated
Kostandovo	"Rim Darv"/romewood/	timber	64	0	closed
Krumovo Gradishte	"APK Krumovo gradishte"	agricultural activity	100	30	privatized
Krumovo Gradishte	DAP Karnobat	transport	80	0	liquidation and privatization
Krumovo Gradishte	Semkompleks	stock breeding	40	10	privatized
Krumovo Gradishte	fodder workshop	Transport + physical workers	20	10	privet owner
Krumovo Gradishte	TZAO Karnobat	Transport +tractor-driver	20	0	no information
Ekzarh Antimovo	TPK Chernomorska	sewing	30	0	liquidation
Ekzarh Antimovo	APK Antimovo	agribusiness	300	60	liquidated, and transformed into new cooperative - JITEN KLASS
Ekzarh Antimovo	PK NOV JIVOT	Trade agro. Crops	70	3	rent out the business
Ekzarh Antimovo	TZEH DMZ	agro. Machines/parts/	30	0	liquidated
Ekzarh Antimovo	bakery	bakery	10	0	liquidated
Nevestino	TKZS Vasil Levski	cooperative	600	200	privatized and renamed "Nadejda" "Hope"
Nevestino	Internat	tailoring	15	10	closed
Nedan	Zlaten class	crops	60	20	liquidated



Karaisen	Vagrianka workshop	transport machines	70	20	privatized
Karaisen	packing workshop	packing workshop	20	20	closed
Karaisen	sewing workshop	sewing		0	closed
Karaisen	glass, weaver	glass, weaver	10	0	closed
Karaisen	wood-workshop	wood-workshop		0	closed
Morava	Republika Svishtov	canning factory	800	70	fragmented into small firms
Morava	RODOPA	Packing-house.	500	50	fragmented into small firms
Morava	Argus Liaskovetz	part of weapons	70	0	closed
Morava	bobbin-winding frame	service of el. Motors	20	0	closed
Morava	bricking workshop	bricks	20	0	closed

Source: SCARLED database- village survey

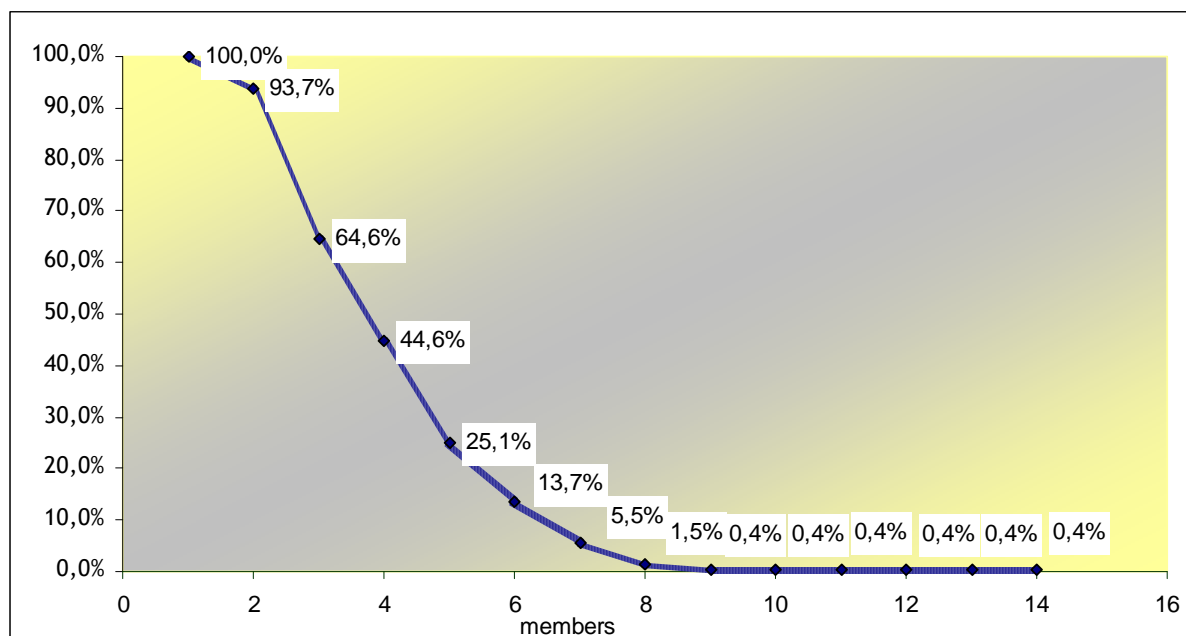
Conclusions that could be drawn from the analysis of the labour situation in the surveyed villages could be summarised as follows:

1. There is a negative population growth in all surveyed regions with only one exception.
2. The unemployment rate declined in all regions but it is quite different among the villages. The age structure could be considered as one of the major factors having impact on unemployment rate /in villages with higher share of the aged population the unemployment rate is lower/.
3. The main activity in all observed villages is agriculture. In some of them there are other job opportunity /wood processing, canning industry, transport, trade, etc./ but in general other jobs opportunities are limited. This is one of the main reasons for the lower income in the surveyed villages and for migration particularly of the young.
4. The farms in the surveyed villages are mixed crop and livestock farms. Specialised farms were encountered only in one of the villages.

### 3.3 The situation of farming and rural households in the surveyed regions

The average size of the interviewed households is 3.5 members. More detailed information about the distribution of members of families is shown in fig. 10.

**Figure 10** Cumulative distributions of the household members, N=271 households, 2184 household members



Source: SCARLED database

As shown above 6.3% of the households interviewed consist of only one member, and only 0.4% of them consist of more than 13 members. One quarter of the households have between 4 and 5 members.

The distribution of households by age of household's head is shown in Table 8.

**Table 8** Age structure of interviewed households based on household head. N=271<sup>8</sup>

	Percent of total households
Age 0-15	16.4
16-65	69.5
66-	14.1
Total	100.0

Source: SCARLED database

As seen from the table, 2/3 of all member are in the group of the active population, the other 1/3 is almost equally divided - children and elders. 21% of these people which are on age 16 -65 pointed out agricultural activate as a main activity. Others are involved in a

<sup>8</sup> Due to the complicated data processing data will be used only for head of household. Also the reason for this is that the data for household heads are most complete and not missing any.

variety of activities, as wage jobs, own non agricultural business, self employers. People who are older than 15 years estimate their possibility /table 9/ to find a job in a local labour market as follow:

**Table 9 Estimation of the possibility to find a job in a local labour market. N=987 household heads**

	percent
1,00 very bad	56.7
2,00 bad	8.3
3,00 either bad or good	12.4
4,00 good	9.0
5,00 very good	13.5
Total	100.0

Source: SCARLED database

From table 10 it is evident that more than 50% of the people perceived the opportunity to find a suitable job as very bad /according to their education and desired salary/. Only 13.5% evaluate the possibility to find an employment as a very good. In addition it is more interesting that only 10% of all household members are looking for another or a new job /not shown/. If we put together the evaluation of possibilities of finding a job and whether they are looking for job the situation is as follows /Table 10/. The data practically illustrates that regardless how the respondents estimate the odds to find a job, 90% of the working age people do not look for a job and only 10% really are looking for a job.

These results show that most of the unemployed people in the observed areas are unemployed more that 3 years and are discouraged to look actively for the jobs. If compared with national data where only 33% of the unemployed are in this category is obvious unfavourable labour market in the rural regions of the country. According to data from the labour statistics in Bulgaria in 2006, 33 % of the unemployed are unemployed for more than 3 years.

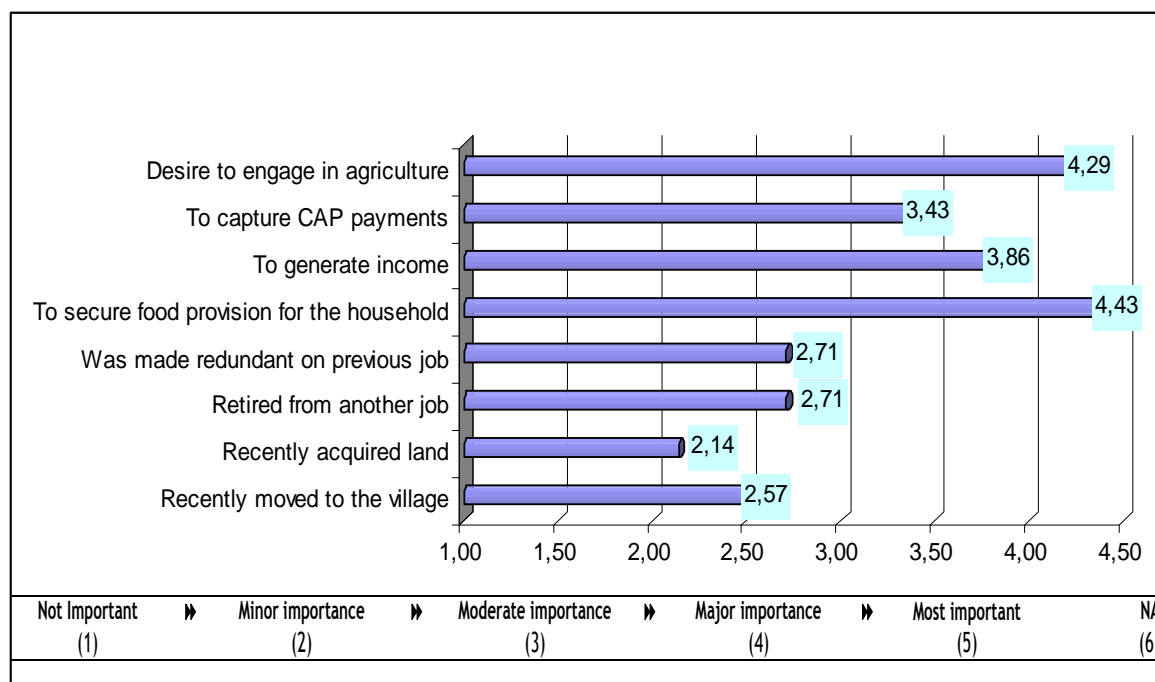
**Table 10 Comparison between perceived chances to find a job and desire to find it, N=271 household heads**

Preceived chances	Not looking for jobs	Looking for jobs	Total
1 very bad	88%	12%	100%
2 bad	88%	12%	100%
3 either bad or good	89%	11%	100%
4 good	92%	8%	100%
5 very good	97%	3%	100%
Average	90%	10%	100%

Source: SCARLED database

According to the data from the field survey in Bulgaria only 3% of interviewed households point out that they run their agricultural activities after 2003. These holders indicated the following reasons /Figure 11/, as important reason to start farming:

**Figure 11 Main factors having impact on decision to run agricultural activities /averages/ N=7 household heads<sup>9</sup>**



Source: SCARLED database

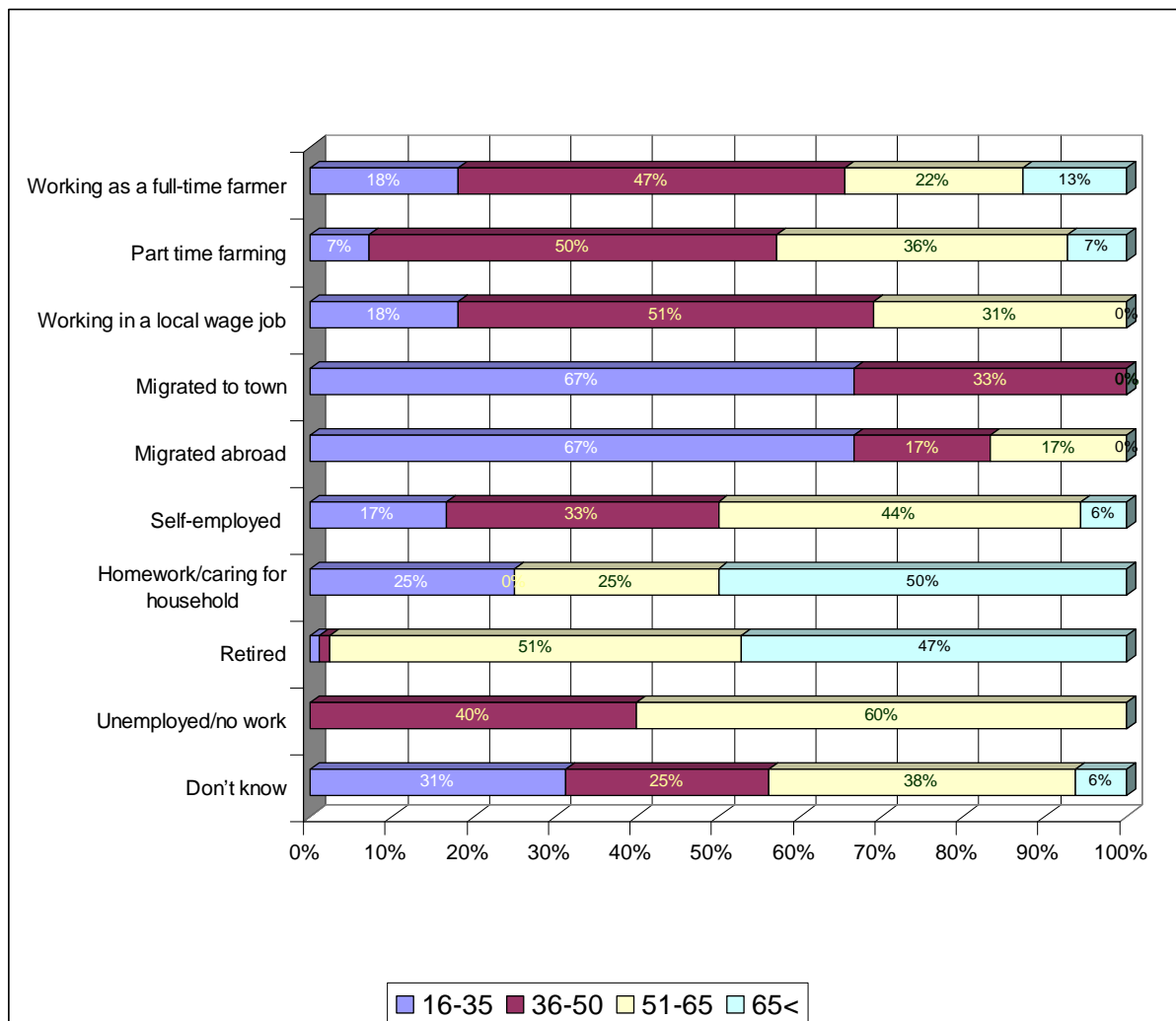
From all factors the most important factor is to secure food provision for the household members, followed by their internal preferences to be involved in agriculture.

Factors as recently acquired land, or moved to the village did not influence the decision to run agricultural activities.

It is very important to know the expectations of Bulgarian farmers for the next few years. Will they really stay in the sector or will they leave agriculture? Will the farmers who once have left their farms return and start to produce agricultural crops and/or breed animals? The answers about their future intentions collected by the SCARLED survey in Bulgaria are shown in Figure 12.

<sup>9</sup> The estimates are simple average among the respondents answers

**Figure 12 Expectations for development of household heads after 5 year according their age structure N=271**



Source: SCARLED database

According to the answers, it could be expected that one third of all household heads will retire and therefore they will stop their agricultural activity. The work as full-time farmer will continue 20% compared to 6% who want to do this as part time. Another 20% will move to a local wage job.

Data from the above figures show some distress signals. The majority of people in age 16-35 who are the most perspectives as young farmers intend to migrate either to towns or abroad. Very few of them see their future as farmers. High is the percentage also from the people in the age group 36-50 who intend to migrate to towns. Obviously measures as supporting young farmers and jobs activity outside agriculture would allow more from these age groups to see their future with villages and rural areas.

It is more interesting to consider the future expectations by farm types. For that the farmer households are divided on 4 groups:

- 1st group - farmers who neglect their farm activities after 2003
- 2nd group - farmers who has economic size up to 1/ESU/

- 3rd group - farmers who has economic size between 1 and 4 /ESU/
- 4th group - farmers who has economic size more then 4 /ESU/

Allocation of farms in these groups is based on criteria shown in Annex of Bulgarian ordinance<sup>10</sup> of semi-subsistence farms in Bulgaria. The distributions of farmers by ESU are as follows /table 11/:

**Table 11 Distribution by ESU according Bulgarian ordinance, N=271 households**

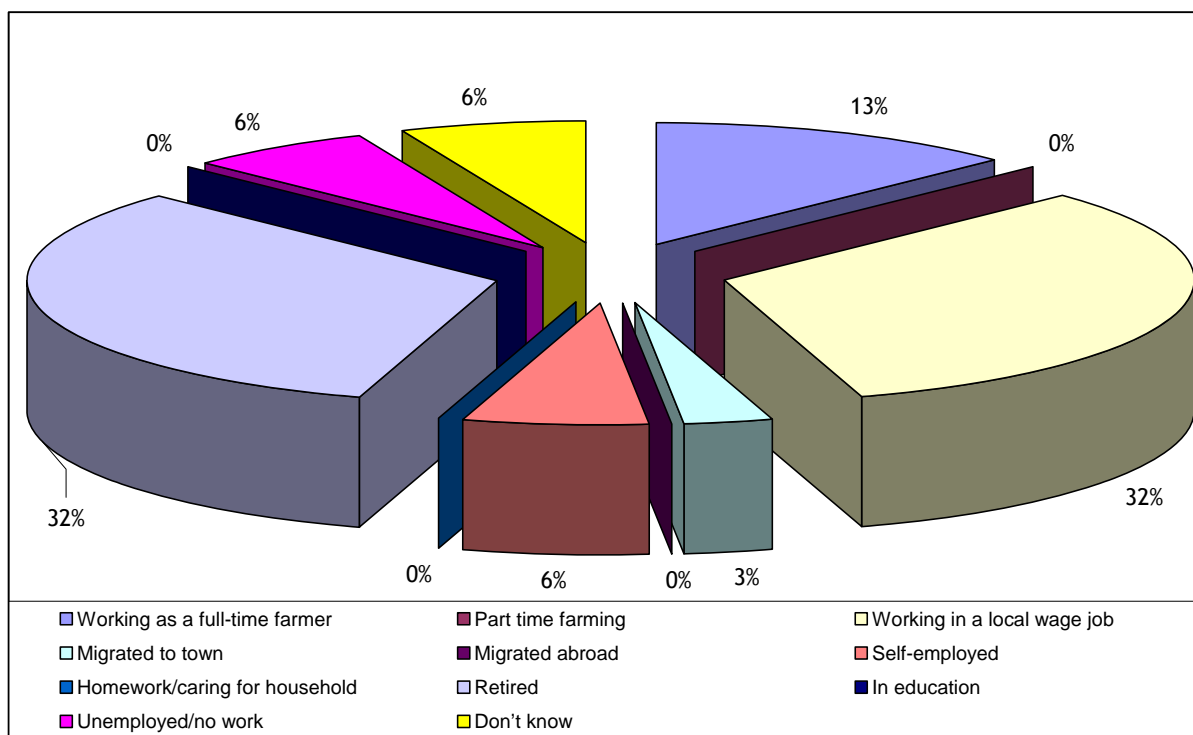
	Frequency	Percent / n.a excluded/
Exit or 0 ESU	31	11.4
Up to 1ESU	103	38.0
1-4 ESU	81	29.9
>4 ESU	56	20.7
Total	271	100.0

Source: SCARLED database

The future expectations of farmers, who do not have agricultural activities after 2003, could be considered in three main groups. 1/3 of them expect that they will work on local wage jobs. Another 1/3 will retire and only 13% of them expect that they will return in agricultural sector /fig.13/. The rest will be either employed in family business outside agriculture, or do not have vision for the future /unemployed or do not know/.

<sup>10</sup> Semi subsistence ordinance - № 28/5.08.2008 МАР /НАРЕДБА № 28 от 5.08.2008 г. за условията и реда за предоставяне на безвъзмездна финансова помощ по мярка „Подпомагане на полупазарни стопанства в процес на реструктуриране” от Програмата за развитие на селските райони за периода 2007 - 2013 г. /Издадена от министъра на земеделието и храните, обн., ДВ, бр. 74 от 22.08.2008 г., в сила от 22.08.2008 г./

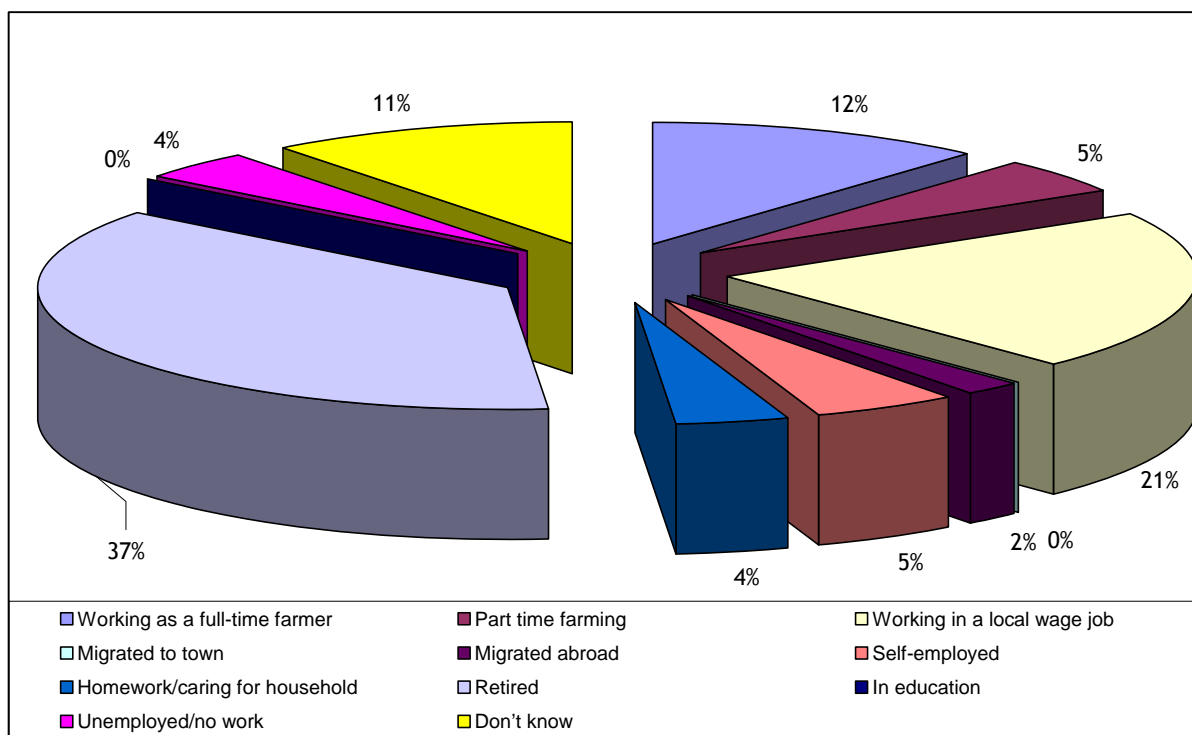
Figure 13 Development of household head of Exit farmers, N=31



Source: SCARLED database

The second group includes subsistence farmers who run farms up to 1 economic unit. The biggest part of them expects that after 5 years they will be pensioners /37%/. Twenty one of them will look for a job outside agriculture and only 17% of them expect that their major activities will be agriculture as full or part time job /Figure 14/.

Figure 14 Development of household head of farmers to 1 ESU, N=103

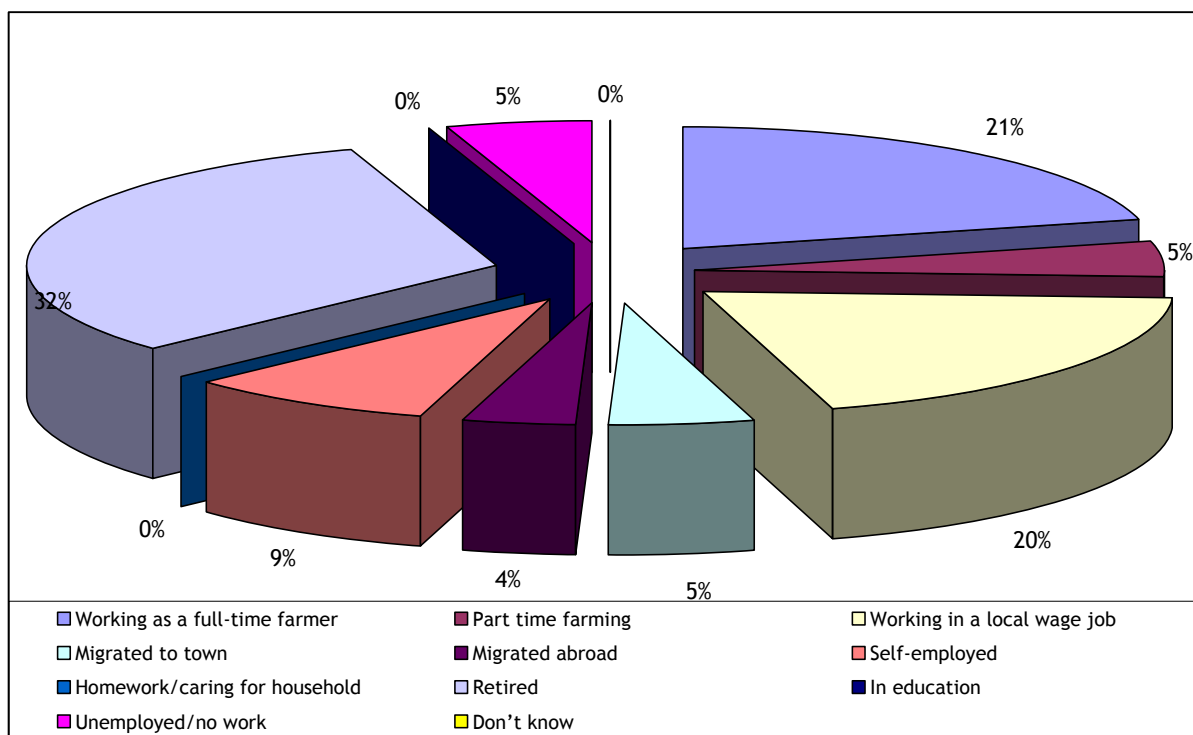


Source: SCARLED database

The expectations of semi subsistence farmers /1-4 ESU/ are not much different from those of subsistence farmers. Thirty two per cent of them expect that in 5 years they will be pensioners. Twenty one per cent will continue to work as full time farmers, and in addition another 5% of them expect to be involved in agriculture but on a part time base. 20% of the farmers in this group will move outside agriculture and will work for a salary.



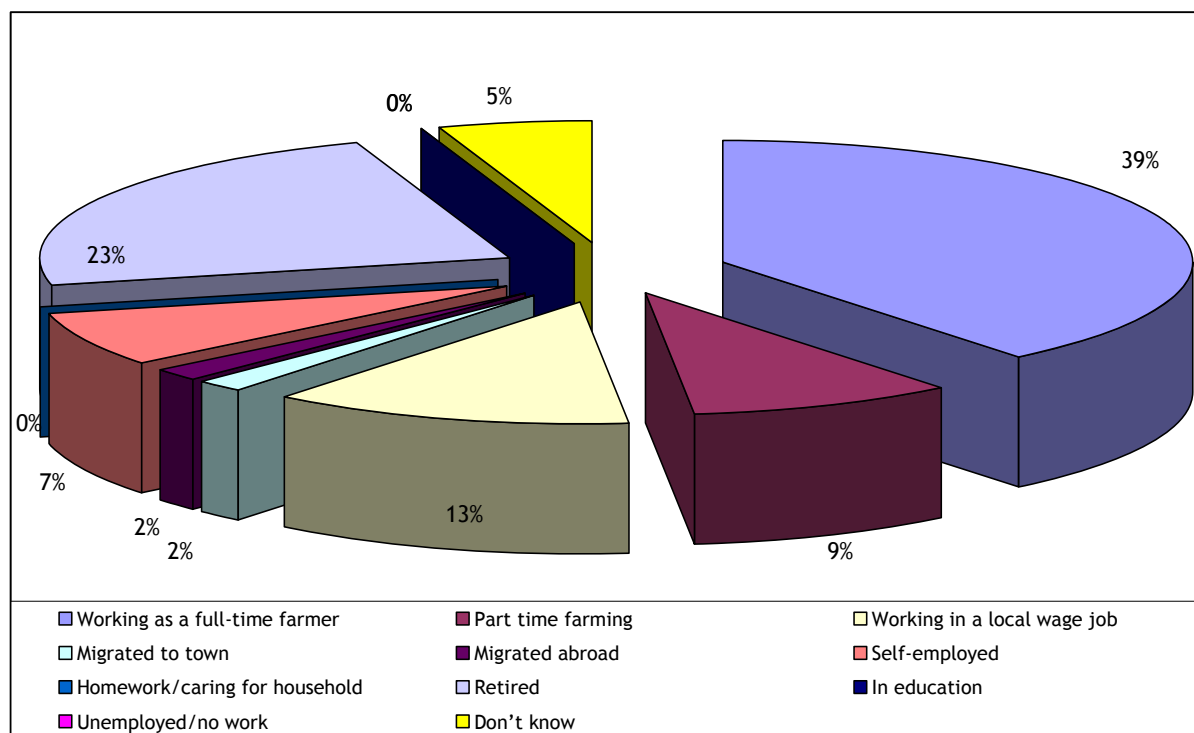
Figure 15 Development of household head of farmers 1-4 ESU, N=81



Source: SCARLED database

The last group of farmers includes those who operate farms bigger than 4 ESU. Their expectations about the future are quite different in comparison with the other three types of farmers /Figure 16/.

Figure 16 Development feature attentions of household head of farmers >4 ESU N 56



Source: SCARLED database

Almost 50% of farmers in this group expect that they will continue to be farmers, with 39% planning to be full-time farmers and 9% part-time farmers. 23% of household heads will become pensioners, and 13% will work for a salary.

The results of this analysis could be summarised as follows:

1. In five years only 25% of all surveyed households expect to stay in agriculture but this figure differs according to the type of farm they operate. The expectations are that nearly 50% of the commercial farms will keep operating in agriculture and only 17% - 26% of small farms will remain in the sector. Another 13% of the farms with no farm activity at the time of observation will go back to agriculture.
2. The unfavourable age structure of the farmers will have a substantial impact on the future development of farms. 32% of the total number of farmers will retire, although there are some differences between the different types of farms but they are not really substantial. The existing age structure of Bulgarian farmers shows that measures for early retirement will be not efficient. On the opposite, every measure for stimulating young farmers would have much more importance.
3. Twenty percent of the total number of farmers expect that they will stop operating and will move to jobs outside agriculture, although at the time of the survey they did not see any good opportunity /chances to find a suitable job were reported to be either very bad or bad.

### 3.4 Distribution of time spent in agricultural activities

The time spent in agricultural activities is an indicator of the time balance of the household head<sup>11</sup>. If he spends more time in agricultural activities he will have less time to work for a salary outside of his own farm. Table 12 shows the distribution of time allocated to agricultural activities on average and by farm type.

**Table 12 Allocation of time of household head to agricultural activities, N=271**

Measure	On average for the observed households	Households up to 1 ESU	Households 1-4 ESU	Households >4 ESU
0%	5%	8%	2%	2%
10%	4%	4%	5%	2%
20%	7%	13%	4%	2%
30%	8%	8%	6%	11%
40%	5%	7%	4%	5%
50%	7%	6%	7%	7%
60%	1%	0%	4%	0%
70%	2%	3%	2%	0%
80%	2%	1%	4%	2%
90%	1%	1%	1%	0%
100% <sup>12</sup>	58%	50%	60%	70%
Total	100%	100%	100%	100%

Almost 60% of farmers spent all their working capacity on agricultural activities. 23% of household heads invest not more than 30% of their time on farms. 7% of the household heads spend 50% of time in their farms. But this picture is quite different if the farms are split by farm types. 70% of the household heads having commercial farms spend 100% of the time on farm activity and only half of the household heads having subsistence farms spend all their time on farms. Nearly 50% of the household heads having subsistence farms spend less than 50% of their time in farms as this percentage is much lower for households having semi subsistence or commercial farms.

<sup>11</sup> The report used data only for head of household. The reason for this is that the data for them are most complete and not missing any.

<sup>12</sup> Based on all time spent in one activity. The calculations are based on total amount of work involved by one person, regardless of the nominal time. As an example: a farmer working in own farm 10 hours and not make any other work, the 8-hours are equal to 100%.

**Table 13 Spent time in self employment activities /non-agricultural activities/ by economic size**

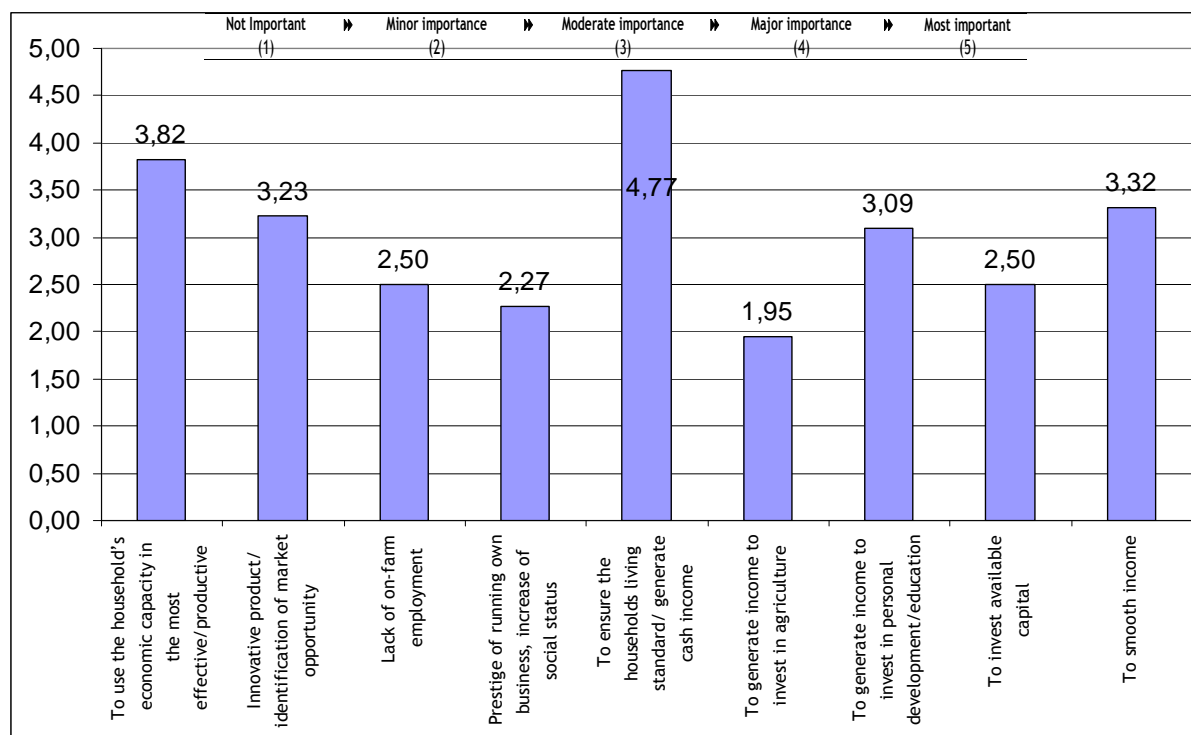
Measure	of spent time in self employment activities	<1 ESU /N=103/	1-4 ESU /N=81/	>4 ESU /N=56/
0%		95%	96%	95%
10%		0%	0%	0%
20%		1%	0%	2%
30%		1%	0%	0%
40%		1%	0%	2%
50%		0%	1%	2%
60%		0%	0%	0%
70%		1%	1%	0%
80%		0%	0%	0%
90%		1%	0%	0%
100%		0%	1%	0%
Total		100%	100%	100%

Source: SCARLED data base

In respect to the non agricultural business, it gives employment only for few households. Such activities are mainly groceries, cafeterias and in rare cases self employment activities as craftsmanships /brick work, carpenters, tailoring and others/. Only about 4% of the household head work in the family business, and the time allocation is as follows between the different ESU groups. This shows that family, non-agricultural business is not well presented in villages. /Table 13/:

The factors influencing the households in their decision to run own non agricultural business are shown in Figure 17.

Figure 17 Decision of the household to run own non agricultural business- N 271<sup>13</sup>



Source: SCARLED date base

The most important factor having impact on decision for running self non agricultural business is “To ensure households living standards/ generate cash income”. The influence of this factor is estimated at 4.77 of 5 maximum which shows that nearly all respondents consider this factor as the most important one. Another important reason behind this decision is “To use the household’s economic capacity in the most effective/productive way”/3.82/. As less important factors the respondent show “To generate income to invest in agriculture”/1.95/, and “Prestige of running own business, increase of social status”/2.27/.

The analysis of the answers to question shows that agricultural activities in rural Bulgaria are considered the most important source of income for living. It is not considered for business activity, neither generating social status or prestige it is just making the leaving. These results are confirm and by the attitude of rural people towards the possibilities of starting non-agricultural business.

75% of the households which do not have own business pointed out that there is no possibility to run such an activity in next 5 years, and only 5% thought that they might have own business outside agriculture. Considering only farmers willing to run own business it is interesting that 38% of them are semi subsistence farms and 31% of them are subsistence farms /table 15/. At the same time only 8% of household heads who respond positively of this question are from the group that has stopped the agricultural activity or do not have such activity. The conclusion could be that the rural areas in Bulgaria are still far away

<sup>13</sup> Estimated as simple averages

from the sustainable development. The rural people just make their living by agricultural activities with limited possibilities for non-agricultural businesses. Any measures for diversification of economic activities in rural areas will positively influence the rural areas development.

The semi-subsistence and subsistence farmers are the most inclined to start non-agricultural business as they are looking for every opportunity to raise their living standard. But it is obviously not the reason for more than 20% of commercial farmers to want to start non-agricultural business. Their motives are mainly stemmed from the desire to add more value to their agricultural activities.

**Table 14 Distribution of farmers who are willing to run self non- agricultural business in next 5 years by Economic size**

Exit	8%
to 1 ESU	31%
1-4 ESU	38%
>4 ESU	23%

Source: SCARLED data base

The main factors<sup>14</sup> that impede from running such an activity can be summarised as follows:

- lack of money/capital
- too old to start such activities
- do not have enough skills
- lack of developed markets
- prefer agricultural activities
- others

According to the data for the time spent on wage paid jobs about 24% of household heads have a wage jobs outside agriculture. There is some differences depending of the type of the farmers. Most often subsistence farmers are employed outside the sector /32%/, and only 21% of the farmers operating farms with more than 4 ESU have a job outside the agriculture. Further more farmers from the later group did not spend 100% of time for a salary out of agricultural sector, and only 1 case invested 80% in that kind of activities. The exact distribution of time spends on non agricultural activity by farm type is shown in Table 15:

<sup>14</sup> The responses are sorted by most frequently given answers and summarized.

**Table 15 Distribution of time spent by farmers for a wage jobs**

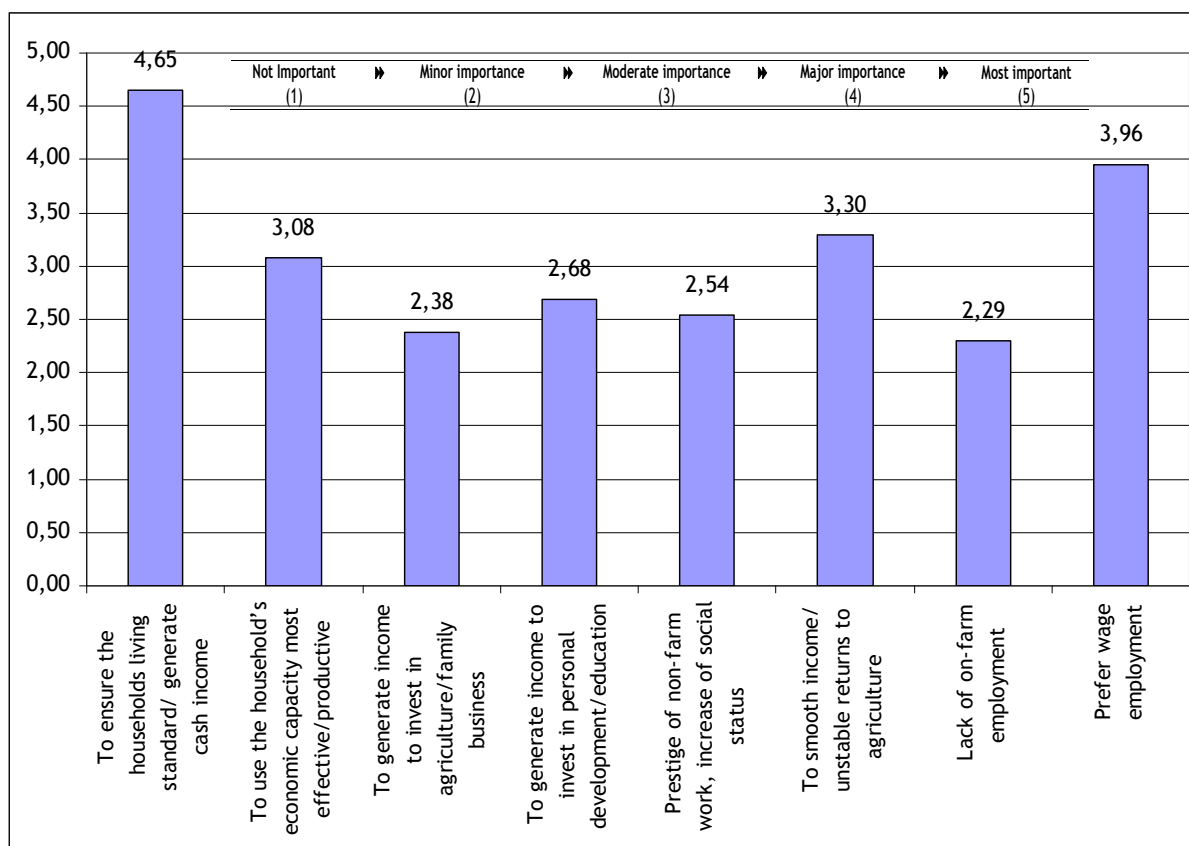
measure	of spent time	to 1 ESU N 103	1-4 ESU N 81	>4 ESU N 56
0%		68%	75%	79%
10%		0%	1%	0%
20%		1%	1%	0%
30%		1%	1%	0%
40%		0%	4%	0%
50%		6%	2%	5%
60%		7%	4%	5%
70%		5%	2%	9%
80%		11%	4%	2%
90%		2%	4%	0%
100%		0%	1%	0%
Total		100%	100%	100%

Source: SCARLED data base

Factors behind the decision to have a job outside the sectors are shown in Figure 18.

As in the case of self employed almost maximum mark /4.65 of 5/ has received the factor "To ensure the household living standard / generate cash income". The answer that members prefer wage employments is marked as a factor of major importance. All other factors are between 3.3 and 2 which means they are of moderate or minor importance for the decision to have a job as wage employed. This again shows the crucial importance of measures for creating non-agricultural businesses in rural areas and improvement of attractiveness of the villages as place for living.

**Figure 18 Decision of the household heads to work in wage employment N 271**



Analysis of allocation of time among different activities by farm types shows that 50% of household heads having subsistence farms spend 100% of working time on farm, 60% of household heads having semi subsistence farms spend 100% of the time on farms, and 70% of household heads of large farms spend 100% of their time on farm activity. The allocation of time between the three activities /farm, own business and wage job/ for the three groups of farms is shown in table 16. As seen from the table the average time spend on farm increases with the size of the farm, as the time allocated to wage jobs declined. Generally, the own business is not well presented in the villages observed.



**Table 16 Allocation of time among different activities and type of farms in percent**

	Subsistence farms N 103	Semi subsistence farms N 81	Large farms N 56	Average for all type of farms
Agriculture	75	82	85	80
Own business	2	3	2	2
Wage job	23	15	13	18

SCARLED data base: own calculation

Results of the analysis above could be summarized as follow:

1. Fifty eight of the respondents spend 100% of their working time on agricultural activities. The rest part of them allocates their time between agriculture and self employment in non agricultural activity and wage jobs.
2. There are substantial differences in respect to the time allocation by farm types as time allocated to agriculture increase with the size of the farm, and the time allocated to other activities declined with the size of the farm.
3. Generally the respondents do not think that they will have possibility to start their self employed business outside agriculture in the next 5 years although many of them are ready to start non-agricultural activity is there are such possibilities.
4. The most important factor having impact on decision for starting a job outside agriculture /as self employed or wage job/ is "To ensure households leaving standards/ generate cash income".

## 4 CONCLUSIONS

The agricultural sector is on one of the last places by salaries amongst the other sectors of the Bulgarian economy. Although the wages in agriculture are increasing yearly between 6% /2003/2004/ and 11% /2006/2007/ the difference between the wages in agriculture and on average for the economy increased in analysed period. This could be one of the main reasons for the decreasing number of employees in the sector, which may lead to further structural changes in the sector.

The sectoral study and the survey revealed that unemployment rate in the villages are higher than at the national level. Although the unemployment rate declined in all regions it is quite different among the villages. Substantial diversities between the villages are observed also in income, job opportunities, age structure, etc. Still the main activity in all observed villages and small towns is agriculture. The limited jobs opportunities in the villages as well as search for better jobs and higher living standard is the main reason for migration out of the rural regions especially of young people and negative population growth in practically all the regions.

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## 5 POLICY RECOMMENDATIONS

The survey conducted in Bulgaria in the framework of SCARLED project revealed substantial influence of structural changes in the farming sector on the rural labour market. The active labour market in the villages is very important to prevent the depopulation in the rural areas in Bulgaria. The specific policy measures aiming at improving the labour market condition in the rural areas can be defined as follows:

1. As agriculture is still the only alternative for employment in many regions in the country all the measures for increasing its efficiency and productivity will create better jobs opportunities and higher living standard for the rural people.
2. Stimulating rural non-farm employment should be main objective of the policy and activity of MAF and local authorities. They have to define clearly objectives and choose appropriate measures from the second CAP pillar which have rural non-farm employment. Measures as "Adding value to agricultural and forest products", "Diversification of non-agricultural activities", "Support to creation and development of micro enterprises", "Promotion of tourist activities" would have a positive effect for stimulating rural non-agricultural employment.
3. Improving labour market in rural regions requires bottom-up approach and active involvement of all the stakeholders - local administration, structures of civil society, local business, etc.
4. Addressing rural poverty and creation of better jobs opportunities needs combined efforts and measures not only from agricultural, but also from social and regional policies. Many pensioners are working on their plots of land as subsistence and semi-subsistence farmers to ensure their living. Stronger social policy would allow them to stop their production activities and will allocate land resources to commercial farms. Reducing the economic and social disparities between rural and urban areas in Bulgaria which is the main goal of regional policies will decrease the desire of young people to migrate from rural areas and will create preconditions for sustainable development of rural areas.

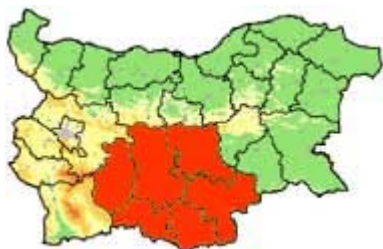
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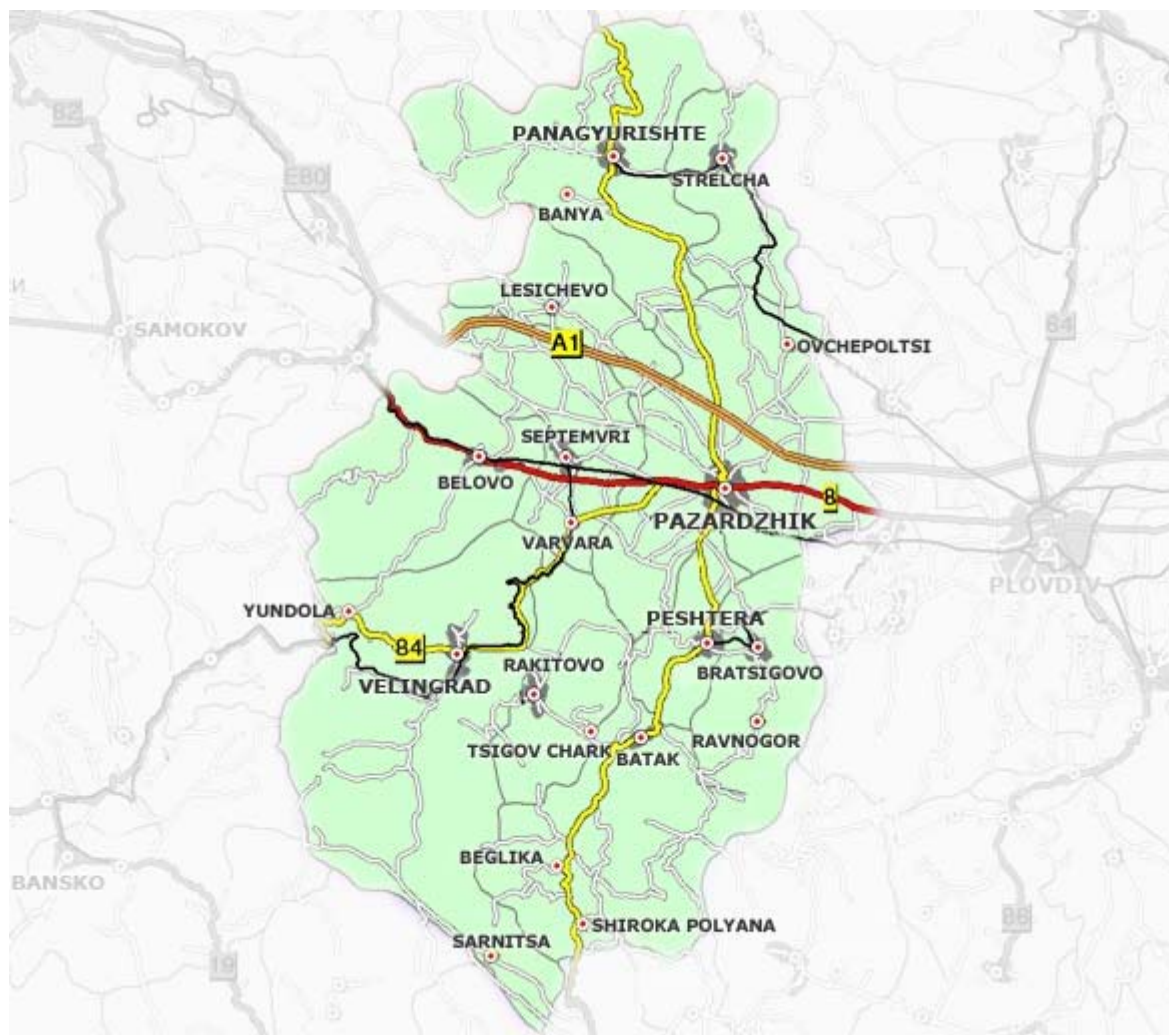
## APPENDIX

### 1. South Central region of Bulgaria



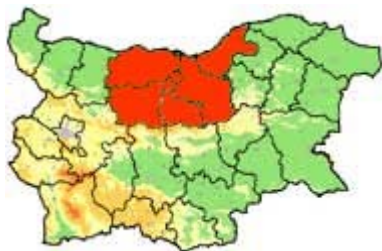
Source: <http://bg.guide-bulgaria.com/>

#### 1.2 Pazardzhik oblast



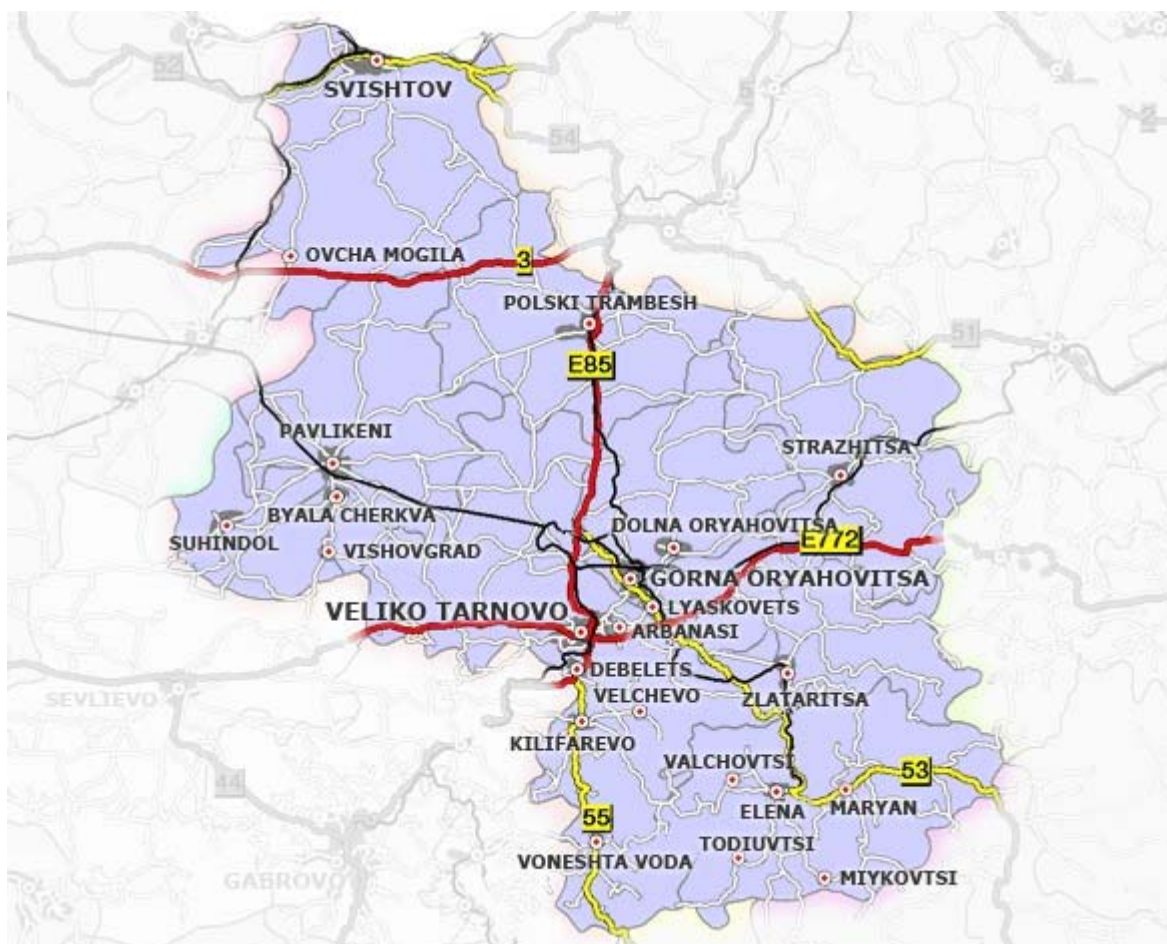
Source: <http://en.journey.bg/>

## 2. North Central region of Bulgaria



Source: <http://bg.guide-bulgaria.com/>

### 2.1 Veliko Tarnovo oblast



Source: <http://en.journey.bg/>



### 3. South East region of Bulgaria



Source: <http://bg.guide-bulgaria.com/>

#### 3.1 Burgas oblast



Source: <http://en.journey.bg/>