# THE PLACE OF THE AGRARIAN SECTOR IN THE NATIONAL ECONOMY-VEGETABLE PRODUCTION

**Eman Kadhum[1], Messar Tabit[2], Nidal Shaban[2]**
**[1] Ministry of foreign affairs, Bulgaria**
**[2] University of Forestry, Sofia, Bulgaria**

**Abstract**

During the period 2000-2007,reported vegetable production was characterized with following trends: The big specialized producers produced big assortment from vegetable crops, some of them with low productivity and quality. The Bulgarian producers are not ready to the new EU conditions after 2007. The state policy include subsidizing this field by the application of a mechanism based on the scheme for unified payment per area unit. Grant support was paid at the amount of 894 thousand BGN, that is 59,6% of the funds envisaged and 3,7% less than the support provided during the preceding year for the finished quality production manufactured. A total number of 269 vegetable producers were supported from 16 regions for 741 hectares of tomatoes actually planted, /i.e., 45,8% of the ones who initially submitted requests and 1,2% less than the negotiated in 2005/ and 1918 hectares of peppers /i.e., 68,6% of the intended and 55,3% more compared to the preceding period. Insufficient financial resource from the state and EU funds. High social and economic price of competences with other EU producers. Bulgarian vegetable producers are not ready in socio-economic aspects to the new situation after 01.01.2007. Necessary of right agrarian policy to keep and develop the skills of farmers, to stimulate optimal conditions for growth of this sector. Insufficient take care to the women participating in vegetable production. The women present main group in vegetable farms.The aim of the paper is to outline the development of CAP on the development of farms producing vegetables during the period of application of the Single payment scheme. To clarify the possibilities of this sector in agrarian national economy.

**Key words:** economics, vegetables, EU, subsidies

Bulgaria is famous for its old and rich horticultural traditions. The geographic position of the country at the crossroads of three continents and near the places of origin of a number of vegetable crops attests for the historical importance of vegetable production in this region of Europe. Bulgaria has rich gene fond and biodiversity in vegetable crops.

The production of vegetables and potatoes is traditional and important part in Bulgarian agriculture which form about 30 % from the field plant production. For this reason, the sustainable development of this sector in conditions of equal and complete EU member is an important part from the priorities of Bulgarian Government as Common Agricultural Policy on the Development of Horticultural Farms.

Instead of the rich experience in vegetable production, from 90$^s$ from the last century, the cultivated area and the quantity and quality of the vegetable production decrease every year. The main reason is unfavorable economic conditions.

Vegetable production in Bulgaria is organized in small-sized farms that cover 1.5-2% of the exploited farming land but it forms about one third of the gross plant growing production which reveals the importance of the sub-sector not only for the satisfaction of consumption but also as a source of incomes. In 2003, about 408 579 vegetable farms have been found, which accounts for 67% of all farms and shows the rife distribution of horticulture in the country. At the same time, 406 724 farms are owned by physical persons with average size of 0,97 da, 1 265 are farms run by sole proprietors with average area scale 15 da. Regarding the legal subjects, 190 are cooperatives with mid size 106,5 da, while other legal entities are 289 with average area of 79 da, along with 111 partnership entities with mid size of 15,4 da.

The feature of small vegetable producing farms is that they rely predominantly on own land, financing and family labor and regardless that nowadays they are profitable after accession of Bulgaria in EU they face serious hardness due to lack of enough liquidity for investment in modernization and further enlargement. To solve this situation it’s necessary from one hand, to enlarge the vegetable farm with new structure and functions due to the national conditions and specificity, and from another hand these farms must solve their obstacles in terms of adoption of advanced technologies; following the standards for quality, hygiene and safety environmental practices and market adaptation.

The main tools of CAP up on [3], which pertain to vegetable-producers are: direct payment of single area in first three years after accession, the marketing standards for quality and compliance control, interventions, foreign trade regime and producers' organizations (PO). The expected impact on the vegetable producers will evince in following aspects:

- The first three years after accession the size of horticultural farms will be ultimate factor for the impact of CAP on their development. Since the margin of the subsidies is 1-2% supposing the net income of those farms, the subsidies in fact will not influence on their development thus their sustainability will be determined and limited by farms' general competitiveness and their ability to respond adequately to market signals;
- The adherence to the marketing standards is an element of CAP. It can temporarily hinder the producers but indisputably high quality products find better reception on the market;
- The foreign trade regimen ensures a specific protective clause that aims to avoid the influence of the factors that are unfavorable for the foreign market and to follow better the trade flows of some sensitive products;
- The producers' organizations provide possibility for solving their market problems. Their creation in Bulgaria is hampered by various factors, such as: lack of markets; lack of concentration of plantations in one region; small-sized plots; lack of the necessary start -up capital; inability to provide the required production of 1,000 t per year; breach of law by the agricultural producers; deficiency of experts; insufficient motivation.

Regardless of the fact that the mechanisms of CAP are generally positively disposed to the producers the accession of our country to the EU is not expected to provoke sudden vitalization of vegetable production. Those farms that are most quickly and best adapted to the market mechanisms by effective production and adherence to the requirements and standards will continue to exist in the sector.

The Gross Added Value created in the Agriculture and Forestry Sector in 2006 amounted to BGN 3 415 million. As a result of unfavorable natural and climatic conditions in the course of the previous years, certain reduction of the physical volume of GVA produced in the sector is observed. The Gross Value Added of the agrarian sector in current prices during recent years is within the limits of BGN 3.3 – 3.5 billion. In 2005 the physical volume of DAV marked a drop of 9.5% compared to 2004. In 2006 the reduction amounted up to 1.9% compared to the preceding year. The relative share of Gross Added Value produced by the agrarian sector preserved the downward trend of previous years: from 11.7% in 2003, 11.0% in 2004, and 9.4 in 2005 to 8.5% in 2006.

The external trade balance commodities and services of Republic of Bulgaria is negative and amounted to BGN 9 320 million in 2006 compared to BGN 6 926 in 2005. In 2006 the export of the country increased nominally by 21.9% (materially– by 9.0%) compared to 2005 and reached BGN 31 421 million.

With real growth in Gross Domestic Product (GDP) for the studied period is above 4% (table 1), the dynamic of the level of Gross Product (GP) and Gross Value Added (GVA) from agriculture is fluctuate tendency. The major drop in (GVA) in compare with the previous period is registrated during 2000 and 2005, with 10,3% and 8,6% which due to unfavorable climatic conditions.

**Table 1. Major macro economic parameters over the period 1998 – 2006**

| Parameters | 1998 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|
| Real growth in GDP In BG in compare with previous year, % | 3,5 | 5,4 | 4,0 | 4,9 | 4,4 | 5,7 | 5,5 | 6,0 |
| Production in agriculture with value in BGN million | 5249,5 | 6868,7 | 7491,4 | 7366,2 | 6674,4 | 7105,6 | 6871,8 | 6780,9 |
| - including field plant production relative, % | 2931,8<br>41,1 | 2762,6<br>46,2 | 3185,8<br>48,4 | 3435,3<br>55,4 | 3387,1<br>50,4 | 3679,3<br>51,8 | 3385,6<br>49,3 | 3373,9<br>49,8 |

(continued)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gross Value Added (GVA) in agricultural production with value in BGN million | 3769 | 3301 | 3579 | 3446 | 3484 | 3576 | 3327 | 3078,0 |
| Changes in GVA in agriculture in compare with previous year, % | 1,4 | -10,3 | 0,3 | 6,1 | -1,4 | 3,8 | -8,6 | -2,9 |
| Relative part in GVA in agriculture in compare with the total production in BGN | 18,8 | 13,9 | 13,4 | 12,1 | 11,6 | 10,8 | 9,3 | 7,0 |
| Investment in agriculture with BGN million | 201,5 | 212,2 | 190,3 | 380,9 | 506,2 | 722,3 | 584,0 | 327,1 |
| Relative portion from the investments in compare with the total in BGN, % | 3,3 | 2,1 | 2,0 | 2,6 | 3,2 | 3,9 | 3,0 | 2,6 |
| Used agricultural area (UAA)[1] thousand, ha | 5645,0 | 5582,0 | 5498,3 | 5324,7 | 5326,3 | 5330,5 | 5264,5 | 5190,0 |
| Cultivated area in agriculture thousand, ha | 3392,1 | 3277,3 | 3350,5 | 3277,3 | 3238,8 | 3262,8 | 3128,2 | 3089,5 |
| Balance of externally trade–agriculture production in BGN million. | 252,4 | 227,4 | 222,1 | 498,5 | 321,0 | 389,0 | 545,7 | 310,0 |
| Inflation rate, % | 18,7 | 10,3 | 7,4 | 5,8 | 2,3 | 6,1 | 5,0 | 7,7 |
| Exchange rate BGN/USD | 1,76 | 2,12 | 2,18 | 2,08 | 1,73 | 1,58 | 1,57 | 1,50 |

*Source: Ministry of agriculture BG, Agrarian report 1998-2006 with data from National Statistic Institute*

*[1] Used agricultural area (UAA) comprises: Arable land; Areas of perennial plants; Areas of perennial green grass; Family gardens; Greenhouse areas.*

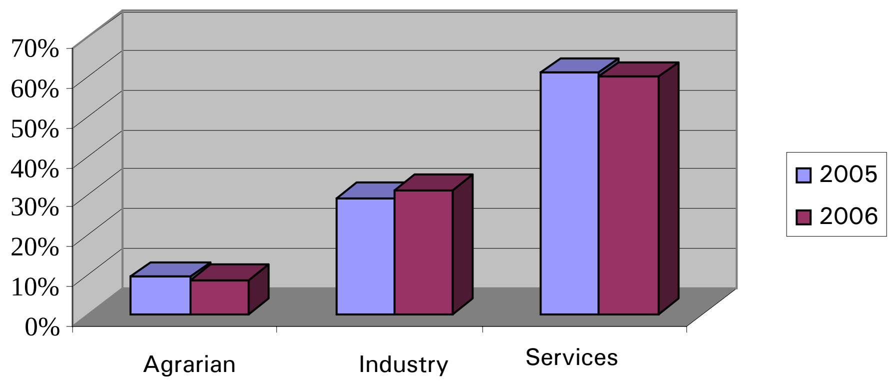



**Fig.1. Structure of the economic sectors with regards to the Gross Added Value(GVA) for the period 2005-2006**

Stable decreasing tendency is observed in(GVA) with 13,9% during 1998 and 9,3% during 2005. This drop is highest in compare with other countries from EU.

**Table 2. Major macro economic parameters over the period 2003 – 2006**

| | Parameters | 2003 | 2004 | 2005 | 2006* |
|---|---|---|---|---|---|
| 1. | Gross Domestic Product (GDP) – current prices in BGN million, including: | 34 627 | 38 823 | 42 797 | 49 091 |
| | Gross Value Added (GVA) – BGN million | 29 604 | 32 437 | 35 220 | 39 972 |
| | Gross Value Added from Sector “Agriculture and Forestry” in BGN million, including: | | | | |
| | - Agriculture, hunting and forestry | 3 465 | 3 546 | 3 308 | 3 400 |
| | - Fishing | 13 | 14 | 14 | 15 |

(continued)

| | | | | | |
|---|---|---|---|---|---|
| | Change of the physical volume of GVA from Sector "Agriculture and Forestry" compared to the preceding year in BGN million, including:<br>- Agriculture, hunting and forestry<br>- Fishing | -2,3%<br>-2,4%<br>+0,4% | 2,3%<br>+2,3%<br>+5,3% | -9,5%<br>-9,5%<br>-4,6% | -1,9%<br>-1,9%<br>-1,7% |
| | Share of the Gross Value Added from Sector "Agriculture and Forestry, and Hunting" in GVA for the economy as a whole | 11,7% | 11,0% | 9,4% | 8,6% |
| 2. | Growth of GDP (compared to the preceding year) | +5,0% | +6,6% | +6,2% | +6,1% |
| 3. | GDP per capita<br>- in BGN<br>- in USD** | 4 426<br>2 554 | 4 989<br>3 168 | 5 529<br>3 513 | 6 376<br>4 088 |
| 4. | Foreign Trade balance – in BGN million | -3 728 | -4 480 | -6 926 | -9 320 |
| | Including:<br>balance of trade of agricultural commodities – in BGN million** | + 321,0 | +389,0 | +545,7 | +310,0 |
| 5. | Investment expenditure on acquisition of long-term assets – in BGN million | 8 503,1 | 9 949,6 | 13 262,5 | 15 440,8 |
| | Including:<br>Investment in acquisition of LTA in the agrarian sector (agriculture, hunting, forestry and fishing) – in BGN million | 267,5 | 376,3 | 440,1 | 455,5 |
| | Acquired long-term material assets – in BGN million | 7 583,4 | 8 712,9 | 11 388,2 | 12 639,6 |
| | Including:<br>Acquired LTA in the agrarian sector (agriculture, hunting, forestry and fishing) – in BGN million | 238,7 | 346,0 | 385,2 | 328,0 |
| 6. | Inflation rates:<br>- average during the period<br>- in the end of the period | 2,3 %<br>5,6 % | 6,1 %<br>4,0 % | 5,0 %<br>6,5 % | 7,3 %<br>6,5 % |
| 7. | Exchange rate BGN/USD | 1,733 | 1,575 | 1,574 | 1,560 |
| 8. | Unemployment rates – average annual level | 13,5 % | 12,2% | 10,7% | 9,1 % |
| | Registered unemployed – total number | 500 664 | 450 566 | 397 340 | 337 796 |
| 9. | Annual average salary of employed people – in BGN | 3 280 | 3 509 | 3 885 | 4 255 |
| | - in agriculture, forestry and hunting – in BGN | 2 431 | 2 596 | 2 809 | 3 053 |
| | - in fishing – in BGN | 1 498 | 1 772 | 2 043 | 2 186 |

*Source: NSI*

*Note: *Preliminary data; **Calculated as per the exchange rate of Item 7*

Negative effects on agricultural production showed many other factors related with economic conditions as follow:

- decreasing the used agricultural area(UAA) with 0,46 million ha including 0,31million ha arable land. The small farming area characterized 7,6 million private owners with average 0,5 ha which prevent rational using of EU funds;
- decrease the quality of used agricultural area(UAA). Growing up the percentage of fallow land. The extensive cultivation is the main part of the production;
- low investment activity with rate around 2-3%, either the total investment grow up ;
- lake of financial resources related with high risk in agricultural production, the difficulties in ensuring credit from the trade banks, the state fund "Agriculture" hasn't sufficient financial resources which hade been used from the big farms. These reasons delayed the modernization process in agriculture;
- not efficient state policy of Bulgarian government in compare with other members from EU.

Nodaway the vegetable cultivated area is 2,2-2,4% from total cultivated, the part of cultivated area with fresh vegetables go dawn under 1% from UAA (table 3). The value of gross production from vegetable crops with big fluctuate tendency 1157,8 million BGN during 2000 and 1343,7 million BGN during 2002. In spite of minimum part of the cultivated area with vegetable crops, this sector form 1/3 from the gross production of field crops and 15% from gross production from agriculture, which showed the efficiency of this sector. The export of vegetable products grow up three times during 2000-2005 period. With value - 14,9 to 54,8 million USD, with part total export of agricultural products grow from 3% to 4%.

**Table 3. Major parameters of the role of vegetable production in Bulgarian agriculture**

| **Parameter** | **1998** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** |
|---|---|---|---|---|---|---|---|---|
| Cultivated area with vegetable crops, thousand ha | 209,3 | 214,9 | 134,5 | 135,7 | 122,3 | 104,3 | 73,0 | 71,0 |
| Relative part from UAA[1], % | 9,7 | 3,8 | 3,6 | 3,1 | 3,2 | 2,4 | 2,4 | 2,2 |
| Relative part with fresh vegetable crops from UAA[1], % | 1,3 | 0,8 | 1,5 | 0,9 | 0,8 | 0,6 | 0,8 | 0,7 |
| Gross production from vegetables, million BGN | 964,9 | 1157,8 | 1183,2 | 1361,0 | 1343,3 | 1267,3 | 1199,4 | 1060 |
| Including vegetables without potatoes | 785,8 | 940,1 | 944,1 | 1169,6 | 1119,7 | 1020,7 | 1027,5 | 998,1 |
| Relative part of vegetables in Gross production of agriculture, % | 18,4 | 13,7 | 12,6 | 15,9 | 16,8 | 14,4 | 14,9 | **15,0** |
| Relative part of vegetables Gross production of field crops, % | 41,7 | 34,0 | 29,6 | 34,0 | 33,1 | 27,7 | 30,3 | **29,6** |
| Export of vegetables, million USD | - | 14,9 | 14,8 | 32,2 | 34,4 | 48,5 | 54,8 | 48,2 |
| Relative part of vegetables in total export of agricultural products,% | - | 3,0 | 3,0 | 4,5 | 4,5 | 4,6 | 4,3 | 3,7 |

*Source: Ministry of agriculture BG, Agrarian report 1998-2006 with data from National Statistic Institute*

*[1] Used agricultural area (UAA) comprises: Arable land; Areas of perennial plants; Areas of perennial green grass; Family gardens; Greenhouse areas*

***External trade***

The main exported vegetable crops are fresh tomato (produced in greenhouses and open field), Dutch cucumber, sweet pepper, onion and potatoes (table 4). Exporting process of Dutch cucumber to EU market go very slow for many reasons belonged to **Phytosanitary control** requirements. Since 01.01.2007 phytosanitary export certificates are issued for goods destined for export for third countries. The goods for EU are moving freely or with Phytosanitary plant passport, guaranteeing that during the production process they were subjected to the obligatory phytosanitary control according to the requirements of the laws of the country and Directive 2000/29 of EU. For this reason the number of issued phytosanitary certificates during the first six months of 2007 is significantly smaller for the last six months of 2006. The tendency of decreasing will continue also during the next few years. The main imported quantity is from onion and potatoes during the studied period.

**Table 4. Export and import of fresh vegetables**

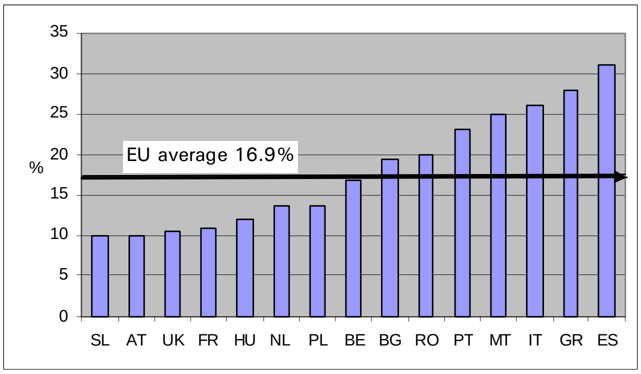
| Product | Import, t | | | Export, t | | |
|---|---|---|---|---|---|---|
| | 2006 | 2005 | 2004 | 2006 | 2005 | 2004 |
| Greenhouse tomato | 9168 | 7321 | 6948 | 212 | 68 | 1668 |
| Open field tomato | 750 | 1216 | 933 | 227 | 172 | 21 |
| Greenhouse cucumber | 4366 | 3045 | 3440 | 5901 | 5633 | 3975 |
| Sweet pepper | 3020 | 13994 | 6379 | 1559 | 1142 | 2604 |
| Onion | 24881 | 16515 | 18361 | 430 | 426 | 659 |
| Potatoes | 10706 | 27807 | 39179 | 109 | 105 | 971 |

*Source: Ministry of agriculture BG, Agrarian report 1998-2006 with data from National Statistic Institute*

**Situation of vegetable production in EU:**

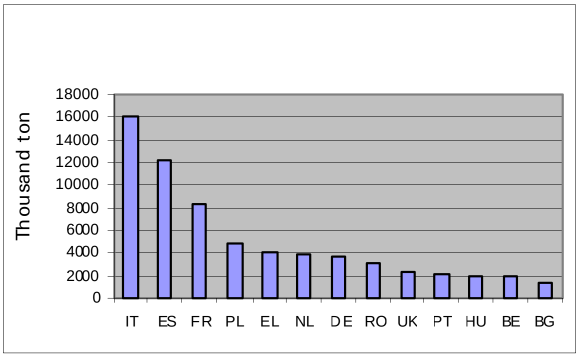
The production of fruits and vegetables in EU countries present 16,9 % from total agricultural products. The main producers are Italy, Greece, and Spain with 25%. Bulgarian production is 20% (Fig2).

EU countries produce 72,2 million т vegetables which present 8,3 % from the world production. The main producers are Italy, Spain, France and Poland (Fig 3).




*Source: Eurostat*

**Fig. 2. Relative sharing part of fruits and vegetables fro EU countries (with upper than 10 %) in compare with total agricultural production (average 2003-2005)**




*Source.: Eurostat*

**Fig. 3. Major producers of vegetables in EU countries (2003-2005)**

The main products are 6,3 million т tomatoes in which participate, Spain- - 2,1 million. т, Italy- 1,3 million т, Greece-0,8 million т, France and Netherland - with 0,6 million т for every one, Bulgaria produce only 0,2 million т.

**State support for agriculture producers through State Fund"Agriculture"**

- **Target subsidies for short-term financial support lines**

In 2006 through a grant payment was implemented under 23 short-term lines through "Agriculture" State fund. Funds were provided for target subsidies, including export subsidies as well as one financial line including a target credit for the purchase of mineral manures for the production of wheat from crop `2007. A total of 57 178 thousand BGN were absorbed as subsidies. The report data for the period indicate as follows:

- A decrease in the total amount of the resource envisaged (purpose subsidies and short-term credits) by comparison with the funds provided in 2005 which is a result of the substantial decrease of the sum envisaged for short-term crediting;
- The level of grant support sustained;
- Low percentage of absorption of the credit resource – hardly 24,3%;
- Increase in the number of contracts signed.

**Production of vegetables**

*Potatoes*

- **Target subsidy to support the farmers for purchasing sowing material from potatoes for producing seeds and for consumption, crop 2006** – the financial resource allocated under this line is at the amount of 1 552 thousand BGN, that is 26,7% more than the subsidy paid during the preceding year, including 436 thousand BGN for seed production and 1 116 thousand BGN for consumption. Following the terms and the conditions of the financial line, 413 potato producers from the country were supported, or 65,5% of the farmers who submitted requests for participation in the subsidy and 11,6% more compared to the year 2005. The financial support covers a total area of 1 963 hectares, that is 8,7% of the harvest areas with potatoes and it exceeds with about 85,7% the areas subsidized in the preceding reporting period.

*Peppers and tomatoes*

- **Target subsidy to support the production of vegetables – pepper and tomatoes, crop 2006**

– during the period reported vegetable production was subsidized by the application of a mechanism based on the scheme for unified payment per area unit. Grant support was paid at the amount of 894 thousand BGN, that is 59,6% of the funds envisaged and 3,7% less than the support provided during the preceding year for the finished quality production manufactured. A total number of 269 vegetable producers were supported from 16 regions for 741 hectares of tomatoes actually planted, /i.e., 45,8% of the ones who initially submitted requests and 1,2% less than the negotiated in 2005/ and 1918 hectares of peppers /i.e., 68,6% of the intended and 55,3% more compared to the preceding period

**Conclusion**

The analysis of the results showed:

- The capacity producing of specialized vegetables with farms is low.
- Insufficient financial resource from the state and EU funds.
- High social and economic price of competences with other EU producers. Bulgarian vegetable producers are not ready in socio-economic aspects to the new situation after 01.01.2007.
- Necessary of right agrarian policy to keep and develop the skills of farmers, to stimulate optimal conditions for growth of this sector.
- Insufficient take care to the women participating in vegetable production. The women present main group in vegetable farms.

**References:**

1. Agrarian annual report of the Ministry of agriculture and food in Bulgaria. http://www.mzh.government.bg/Article.aspx?lmid=820&id=820&lang=2
2. Strategy of development of vegetable production in Bulgaria.
3. HADJIEVA V. 2007: Expected influence of the common agricultural policy on the development of horticultural farms. Journal of management and economy of agriculture. Vol 52 number 5 p.3-8.