

AGRO*plan*

**Title: VOCATIONAL TRAINING IN FARM MANAGEMENT AND
ENTREPRENEURSHIP**



Country Report and Training Needs Assessment

For BULGARIA

Developed by:

B B & T Ltd”

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2 COUNTRY BACKGROUND

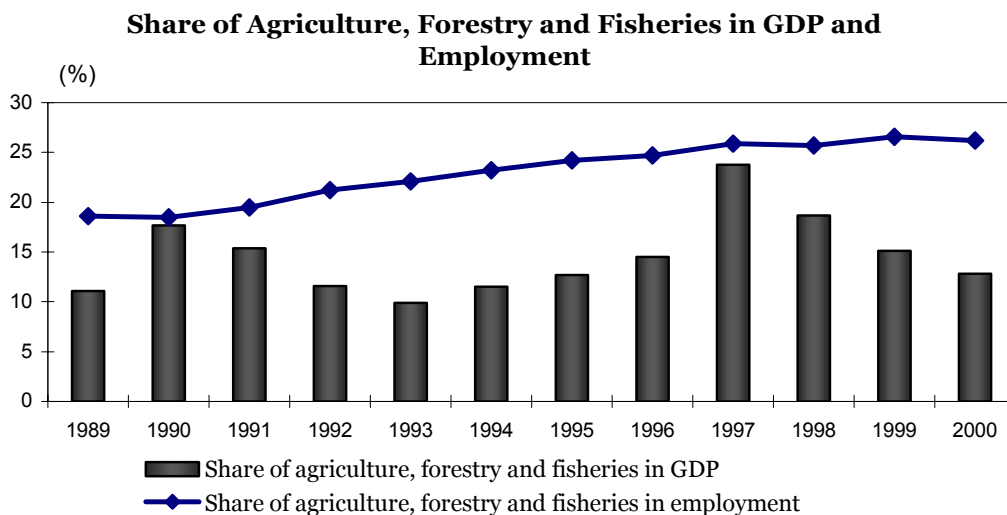
With its area of 109 910 km² and population of slightly below 8 million, Bulgaria occupies the south-eastern part of the Balkan Peninsula. A small country with centuries-long history, Bulgaria stands at the crossroad of major routes from Europe to Asia. While undergoing substantial changes in its recent economic and social life, the country is firmly set on its way to a market economy and democracy.

During the last five years the economic environment in Bulgaria has continuously improved. Currently, the macro-economic framework within which the sectors of economy are developing can be described as stable. Large-scale privatisation and restitution of agricultural and forest land has been successfully completed as a result of which the main part of the economic activities today is being performed by the private sector.

Since July 1997 the Bulgarian economy has been operating under a currency board arrangement (CBA). Thanks to CBA and supporting IMF programs, inflation was cut from nearly 600 percent in 1997 to only 1 percent in 1998. Subsequently, the CBA has contained inflationary pressures and in 2000, 2001 and 2002 inflation stood at 11.3 percent, 4.8 percent and 3.8 percent, respectively.

Following declines in GDP in both 1996 and 1997, GDP has grown in real terms for the past four years (4.0 percent in 1998, 2.3 percent in 1999, 5.4 percent in 2000, 4.0 percent in 2001, 4.8 in 2002 and 4.3 in 2003).

The currency board agreement in 1997 stabilized the macroeconomic environment in Bulgaria and allowed for sustainable development of various economic sectors. As a result, Bulgaria's gross domestic product (GDP) in 2002 was by 22% higher compared with 1997. The agricultural sector share in country's GDP, as well as in employment is presented below.



Source: NSI, AEAf

The different sectors of the economy have developed with different speed for the period in question. The service sector witnessed particularly rapid development, increasing its share in gross value added (GVA) by 24.4% in 2002 compared with 1997. For the same period, GVA in communications has increased more than twofold. Sectors such as financial brokerage, trade and industry have also been quite dynamic, reporting an increase of 56%, 35% and 20%, respectively, during the five-year period from 1998 to 2002.

Only the agricultural sector experienced uneven development after 1997 marked by downturns and periods of growth. The agricultural GVA contribution increased by a meagre 1% over 1998–2002, due chiefly to a substantial loss of more than 10% in 2000.

Table 1. Structure of Gross Added Value by economic sectors (%)

	1997	1998	1999	2000	2001	2002
Agriculture	26.2	18.8	16.3	13.9	13.4	12.5
Industry	27.9	30.5	28.2	29.1	28.7	27.8
Services	41.0	45.3	49.5	50.4	51.4	52.6
Gross Added Value	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Statistical Institute, 2003

3 AGRICULTURAL SECTOR OVERVIEW

The agricultural sector development in Bulgaria is an integral part of the wider geographical, economic, and social context. Farming and related sectors are the basic economic activity of rural areas, which in Bulgaria include all municipalities, except the 28 district centres and five other municipalities (Svishtov, Gorna Oryahovitza, Dimitrovgrad, Kazanlak and Dupnitsa). In other words, out of 263 municipalities, rural areas cover an area of 90,371 sq. km, or 81.4% of the country's territory, and include 3,612,974 inhabitants constituting 43.6% of Bulgarian population. Population density in the rural areas is about 40 people per sq. km versus 74.6 for the country's average.

3.1 2.1 AGRICULTURAL EMPLOYMENT

The trends in development of the labour market in Bulgaria in the last years have been determined by the negatives from restructuring of the economy, privatisation of major part of state owned enterprises, liquidation of the non-profit productions and at the same time emergency of new and non-traditional activities.

According to data from Bulgarian National Economic Development Plan 2000-2006, the unemployment rate in the country fluctuated depending on the business situation, persisting above 15%¹. The pool of long-term unemployed comprises 62,7% of all unemployed aged 15 years and over. In 2001, some 12.9% of males and 11.7% of females belong to the long-term unemployed. Persons with a primary or lower level of education account for almost 50% of pool of long-term unemployed and 70% of long-term unemployed youths.

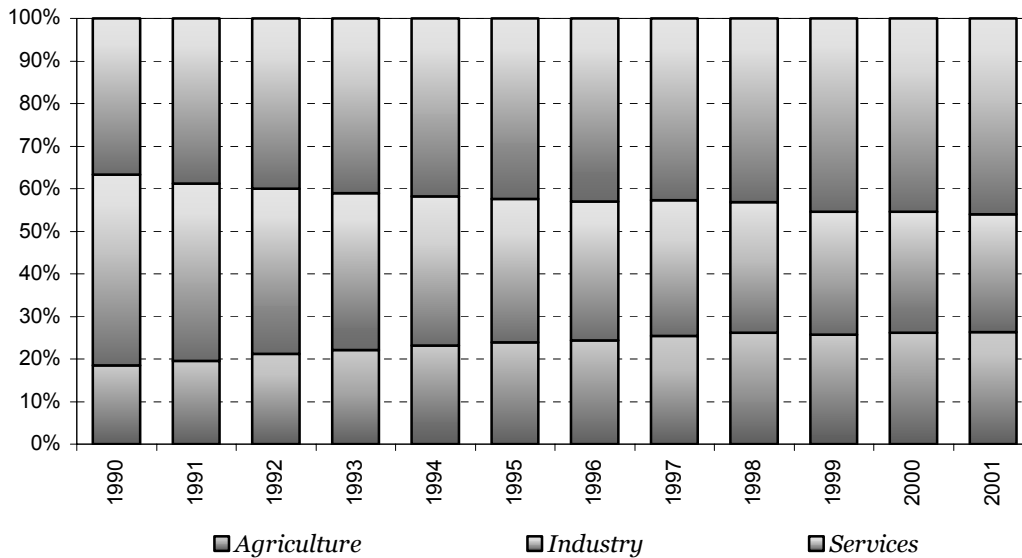
Since 1997, the private sector, including agriculture, has been providing employment to the better part of labour force in the country. In 2001, the share of private sector employees reached 73.4%, stepping up by around 3% on a year earlier.

The number of employed in the industry has been constantly following a downward trend since the onset of transition. Considerable fluctuations in employment in manufacturing had been discerned in the 1997-2000 period. The number of service sector employees exhibited a consistent upward trend in unison with the trends monitored in the other Central and East European countries.

The high unemployment level is critical factor contributing to poverty in rural areas given that rural unemployment is twice as high as urban unemployment. Nevertheless, after the initial large declines of agricultural employment in the first years of transition, in 2000-2002 job gains in agriculture increased as a consequence of restoration of land ownership and noticeable upturn in the sector.

¹ There are two available sources of data on unemployment complementing one another: the first one presents unemployed persons, registered in the Employment Agency. The second rests on the Labour Force Surveys carried out since 1993, using the definition of unemployment accepted by the International Labour Organization (ILO). According the EA, the highest number of registered unemployed was reported in 2000 and the first half of 2001 which is to a great extent associated with the speed-up of privatization in 1998 and 1999 and the launch of reforms in social insurance and health insurance systems.

Average Annual Number of Employed by Sectors



Source: NSI, AEAFF

Information that could give a precise picture on the labour force engaged in the agricultural sector is still not available. The already conducted surveys by the Ministry of Agriculture and Forestry (MAF), Directorate “Agro-statistics” are giving only some estimated figures, while confirmation of such is expected to be obtained **on the basis of the agricultural census, conducted in 2003.**²

The employed in agriculture comprises of permanent and seasonal workers; those, hired under labour contract and unpaid workers; family and non-family workers; pensioners and unemployed. The last two categories are the biggest share in labour force in agriculture. They use the agriculture as an additional income source.

In general, the agricultural holdings (individuals and legal entities) in Bulgaria employ around 368.5 thousand people. Still about 1 million people use the agriculture only as an additional income source. The volume of work input is estimated in number of annual working units (AWU).

Table 3. *Employment in agriculture*

Legal statute	Labour force		People declaring the agriculture as main (sole) employment	People declaring the agriculture as additional employment
	Total	Number working units	Number	Number

² Some official results are expected in June 2004 at earliest. The census will give detailed information on the size of the cultivated areas, number of the bred animals, the volume of the production, produced in the holdings.

Individuals	1 288,8	671,5	325,4	963,4
Legal entities and sole proprietors	43,5	42,4	43,1	0,4
Total	1 332,3	713,9	368,5	963,8

Source: MAF, "Agro-statistics" Directorate; Observation on the structure of the agricultural holdings in Bulgaria in 2000/2001

The share of the young people employed in agriculture is low. Only about 12.5% of people working in agriculture are under the age of 35. Respectively the share of people older than 64 is high - 28%. More than half of the employed in agriculture sector is in age of pension or of pre-pension. The share of women employed is nearly 1/3 of the total employed in the sector; while at the same time their share in the officially employed in holdings (legal entities and sole proprietors) is only 26%.

3.2 MAIN FARMER PROFILES

Land structure

The Bulgarian agricultural sector has gone through sweeping and painstaking structural changes as a result of land ownership restitution. All this has made the exact identification of agricultural holdings and their number difficult. Two surveys³ conducted by the Agri-statistical Department of MAF provided the necessary statistical groundwork for the assessment of the agricultural holding structures in Bulgaria.

The number of agricultural holdings in Bulgaria counts for about 770 000, processing more than 3.4 mil ha of cultivated agricultural land (CAL). The legal entities and sole proprietors own 5300 holdings or only 1 % of the total number of agricultural holdings. But despite the low share in the number of holdings they cultivate nearly 2.5 mil ha of CAL (74 % of the total land). From this group of holdings around 2900 are co-operatives, cultivating 51% of the CAL or average 599.5 ha each. The rest of the holdings are forming the bigger group - holdings of individuals unregistered by law, processing around 26 % of the total CAL, or average of 1,2 ha per person.

Table 4. Structure of agricultural holdings and land size for 2000/2001

Legal statute	Agricultural holdings		Total agricultural land in use		Average size
	Number	%	Thousand ha	%	(ha)
Individuals, unregistered by law	763 000	99%	880	26%	1,2
Legal entities and sole proprietors	5 300	1%	2 555,7	74%	482,2
Incl. agriculture co-operatives	2 900	0,4%	1 738,6	51%	599,5
Total	768 800	100%	3 435,7	100%	4,5

Source: MAF, "Agro-statistics" Directorate

³ Surveys on the structure of agricultural holdings in Bulgaria 1999/2000 and 2000/2001

The legal entities and sole proprietors are owners to only 2 % of the land they cultivate. Nearly half of the remaining land is taken on lease, while the other half is rented land.

The share of the own land cultivated by individuals is higher compared to the legal entities and sole proprietors. However, the rented/leased land is nearly 80 %.

Table 5 Distribution of cultivated agricultural land by form of management

Legal statute	Own land	On lease	Rented	Sharecrop and other forms	Total
Individuals	23%	30%	46%	1%	100%
Legal entities and sole proprietors	2%	48%	50%	0%	100%
Total	5%	45%	50%	0%	100%

Source: MAF, "Agro-statistics" Directorate

Agricultural holdings ownership structure

At present more detailed information with concrete data are analysed for the **animal breeding farms**, grain production and fruit-growing. Detailed data for the other type of farms and the overall structure of the agricultural holdings is expected in the mid-2004, when official results of Agricultural Census will be available. In general the number of large-scale entrepreneurs in plant growing is higher than in the sector of the animal breeding.

The predominant part of Bulgaria's animal breeding sector uses extensive methods of subsistence agriculture. The number of the commercially oriented holdings is comparatively low. An interesting fact for the ownership structure of holdings is that most of them are not registered as enterprises under the Commercial Law. About 89% of all professional animal breeding holdings⁴ are owned by individuals. The number of the legal entities and sole proprietors engaged in animal breeding is very low.

Typical for the structure of the animal breeding holdings is their fragmentariness. About 239 thousand milk cows in Bulgarian are in holdings breeding from 1 to 4 cows – or 1.4 cows average per farm. These holdings represent 94,9% of the total number cattle breeding farms. The holdings breeding more than 10 milk cows are about 2 780 with average number of cows - 27.5. About 76,6 thousand milk cows are concentrated in this type of holdings.

As of 1st November 2002 only 8,5% of the cattle, 13,9% of the buffalos, 34,2% of the pigs, 2,7% of the sheep and only 0,1% of the goats in Bulgaria are bred by legal entities and sole proprietors. Individuals breed more than 95% of the sheep and goats.

The analysis of the available data shows that the individuals are specialized mainly in animal breeding, while the legal entities and the sole proprietors - in plant-growing.

85% of the **areas planted with grains** in the country are owned by legal entities and sole proprietors. 86% of the areas planted with wheat and barley and 82% of the areas

⁴ Professional animal breeding farm is an entity, breeding at least 10 cows, or 10 buffalos, or 50 sheep, or 50 goats, or 50 pigs

planted with maize are also concentrated in these holdings. More than 50% of those areas are in co-operatives.⁵

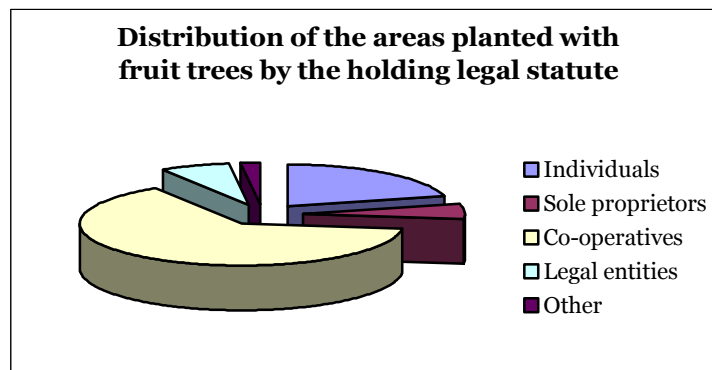
Despite the legal entities and sole proprietors' prevalence in the areas distribution, the share of holdings owned by individuals is very high (average 84% of all holdings). Therefore in the grain production, the legal entities and sole proprietors own comparatively large-scale holdings. The share of cooperatives in the total number of legal entities and sole proprietors is very high. They cultivate about 56% of all areas planted with grain crops.

Table 6. Distribution of the areas with main grain crops by holdings

Legal statute	Wheat		Barley		Maize		Total grain crops	
	Holdings	Area	Holdings	Area	Holdings	Area	Holdings	Area
Individuals	85%	14%	79%	14%	90%	18%	85%	14%
Legal entities and sole proprietors	15%	86%	21%	86%	10%	82%	15%	86%
Incl. co-operatives	9%	57%	14%	63%	5%	44%	3%	56%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: MAF, "Agro-statistics" Directorate

About 64% of the CAL planted with **fruit-cultures** is controlled by agriculture co-operatives. However, the share of co-operatives is only 5% of the total number fruit-growing holdings. Sole proprietors own more than 90% of the plant-growing holdings in Bulgaria, but they cultivate only 21% of the areas planted with fruit-cultures.



Source: MAF, "Agro-statistic Directorate" – "Survey on the fruit production" – 2002

⁵ Observation on the structure of the agricultural holdings in Bulgaria conducted by the MAF "Agro-statistic" Directorate, in 2001 ("structural inquiry `2001"), according to the activities envisaged by the European Union legislations – Regulation N° 571/88.

3.3 CURRENT LEVEL OF KNOWLEDGE, SKILLS AND QUALIFICATION ACROSS THE SECTOR ⁶

Most of labour force in the country is characterised with a relatively high level of education. At the same time, it lacks modern professional competencies and is specialised in a given narrow professional field, which predetermines its low mobility. The educational level and professional skills of the unemployed population and particularly of the long-term unemployed persons are a serious matter of concern.

The labour force lacks certain modern basic skills, mainly inter-disciplinary and inter-professional skills and knowledge as well as essential qualifications. There is a shortage of skilled labour in occupations in the field of new technologies in manufacturing and services, modern technologies and equipment in agriculture. Entrepreneurial skills are also missing.

Despite the difficulties in the years of transition the Bulgarian entrepreneurs and managers have made considerable progress in the recent years. However they still lack many of the management skills and experience needed to operate their firms efficiently and profitably.

70% of the small and medium size enterprises declare that they need improvement of their qualification, especially concerning distribution of their finished goods, the introduction of new products on the market and performance export activities, basic skills in the area of management and planning. ⁷

The education and qualification level is low especially in the agricultural sector. 84% of the farm managers have no agriculture education, but only practical experience. 10% of them have graduated specialized secondary education and only 6% - higher agriculture education.

The educational level of managers of individuals' holdings is considerably lower than of managers of legal entities and sole proprietors. Only 12% of the managers of individuals' holdings have an agricultural education/training.

In plant-growing sector the share of managers with agriculture education is higher than in animal breeding. This is due to the fact, that the holdings in plant-growing are bigger and the share of commercially oriented holdings is higher.

Compared to the case of the individual holdings, the situation in the case of legal entities and sole proprietors is much better. 65% of the managers of legal entities or sole proprietors have agricultural education. However, the level of the educated managers in the animal breeding is again lower.

The educational level is highest among the managers of co-operatives - average 71% have some form of agricultural education.

⁶ Study on the agricultural producers conducted in 2000 under PHARE BG 9810-02-01-03: Preparation of similar measures for NPARD under SAPARD programme/Measure 3.1 Improving of the vocational training: Analysis of the supply and demand of vocational training in the field of agriculture, forestry and diversification in the rural areas in Bulgaria, 2001

⁷ 2001 Interlaken International Conference – Working Group 4: Case Study “Bulgarian SMEs declare to need skills development in marketing”

Table 7. Share of managers of agriculture holdings with some form of agriculture education, by holdings' specialization

	Holdings' specialization					Total
	Plant-growing	Mixed plant-growing	Animal breeding - ruminant	Mixed animal breeding	Mixed animal breeding & plant-growing	
Individuals	22%	12%	10%	9%	11%	12%
Legal entities and sole proprietors	67%	71%	41%	44%	51%	65%
Incl. co-operatives	70%	77%	86%	-	77%	71%

Source: MAF, Directorate "Agro statistics"

3.4 ICT USE IN THE AGRICULTURE

The ICT is of key importance for the extension of market niches and the establishment of new markets, for the maintenance of effective non-labour consuming planning and management of business, cheap and quick information access to news and information, and rapid interaction with public institutions and municipal administrations in the near future.

Nearly half of the Bulgarians live in small towns, not yet reached by the economic progress underway in urban areas. The further is a community from a large city, the bigger is the gap in the ICT development.

A study on the small and medium enterprises in Bulgaria, including those in agricultural sector, shows that SMEs lag behind, although not critically, from the world tendencies in the ICT. Usually, small and medium-sized businesses cannot afford the prices of contemporary technical and programme devices and for this reason they need to be encouraged to use ICT⁸.

The number of the farmers working with computers is still very low. These are mainly bigger holdings and co-operatives, working for the market. The ICT use can improve the positions of the agricultural producers, and especially to the smaller-scale through rendering of information on the rising demand of certain goods.

In 2002 in National Agricultural Advisory Service was introduced Management information system. The database comprises of 614 information materials and 316 users have registered for access to the library. For the first 6 months of 2003 the same figures are as follows – 289 information materials and 682 registered users.

⁸ Survey of the business environment for SME development, 2001

3.5 ENVIRONMENTAL ISSUES RELATED TO AGRICULTURAL AND RURAL DEVELOPMENT⁹

Since 1989, usage of agro-chemicals in Bulgaria has been substantially decreased due to cut of subsidies for agriculture. In August 1999, the Parliament adopted a new Act on Plants Protection, which stipulates standards for organic production, establishes a certification authority and introduces labelling requirements to organic production.

90 % of farming land in Bulgaria is suitable for organic farming. Lack of resources for pesticide treatment and intensive stockbreeding allows farmers to produce bio production, which constitutes a purely Bulgarian niche on the EU markets. Almost all traditional Bulgarian products are suitable for organic farming - wheat and barley, spring potatoes, various fruits, vineyards, variety of vegetables, cotton, oriental tobacco, essential oil roses and sesame.

Modern methods of organic farming, which depend on raw materials internally produced in the farm (manure, forage), and not on external substances (chemicals and fertilisers, food concentrates for the stock) reduce the cost of production. Those methods are very suitable for private family farms (cows and sheep breeders, etc.) in the mountain and semi-mountain areas of Bulgaria. Farming technologies used in such farms almost fully comply with organic farming requirements.

Regardless some gaps in the Bulgarian legislation, the first officially recognised production of organic food started in 1996, under a FiBL project that was financed by the Swiss government. At the moment, nearly 60 farmers from Karlovo, Kazanlak, Sevlievo, Troyan and Tryavna work under that project. Most of them produce fruits and vegetables, but according to EU experts, there will be also demand for traditional Bulgarian products such as buffalo milk or herbs. In addition, the project of the Swiss government provides credits to Bulgarian organic farmers.

An Agro-Ecological Center (AEC) was established under the EU project on the line of Tempus program. The AEC operates as the first Bulgarian demonstration, training and experimental farm for organic production to be used as a model for transition from conventional to eco-friendly farming under PHARE program.

SAPARD program is anticipated to allocate budget for similar production, not as a credit facility but in a subsidy form. Measure “Development of Environmentally Friendly-agricultural Practices and Activities” aims at encouragement and support farmers to start using environmentally friendly agricultural production methods.

The natural and structural diversity of Bulgarian land combined with a high number of environmentally sensitive areas (more that 100 sites) demands several pilot projects to cover the general and specific objectives of this SAPARD measure. Each pilot project covers a certain geographical zone or environmental sensitive area or type of agro-ecosystem and includes at least one and usually more agro-environmental actions corresponding to the different managerial needs of the agro-ecosystem.

The implementation of more than one environmental action per holding demands a certain level of training and know-how by farmers, by farmers’ consultants and the administration, that are not common practice in Bulgaria yet.

⁹ National Agri-Environment Program, MAF

4 OVERVIEW OF VET SYSTEM IN BULGARIA

4.1 CURRENT SITUATION IN VET

The national system of education includes the sub-systems of pre-school education, school education (primary and secondary, including VET) and higher education.

Bulgaria has long years' traditions also in postgraduate qualification and pre-qualification. Up to 1989 workers, specialists and managerial staff were trained within unified national, centrally governed system of training, qualification and pre-qualification. It allowed annual training of 700 000 to 1 million people studying in more than 900 VET centres, schools and their branches.

After 1989 the centralized VET started to fall apart. Many VET centres, most of which are situated in the enterprises were closed. In 1992 only 5 % to 10% of the training centres remained, and the number of the trained became less than 100 000 yearly.

Meanwhile the educational and consulting services market started to develop. The former training centres were displaced by rapidly forming, market-oriented private and state companies, offering educational services in different spheres: practical vocational courses, management training, foreign language training, marketing etc. Most of these organizations are oriented to the labour market and are cooperating with the existing structures, especially the National Employment Office (NEO).

During the transition to a market economy vocational training is implemented in the following ways:

- training for initial qualification;
- raising the level of qualification;
- training for additional qualification;
- acquiring new profession, specialization /retraining/.

In the recent years, due to the changes in the economy and the high unemployment, the interest towards the opportunities for pre-qualification, or raising the qualification is steady increasing. More than 500 institutions and private companies are registered in the National Employment Office for organizing of vocational training courses in different specialties.

4.2 LEGISLATIVE FRAMEWORK

The legislation in force that regulates the VET in Bulgaria is in a process of harmonization with the EC legislation. The functioning, contents and organization of the VET system are determined basically in the following documents:

- National Education Act (last amended 2002);
- Regulations for implementation of the NEA(1999);
- The VET Act (last amended 2002);
- Unemployment Protection and Employment Initiatives Act (last amended 2002);
- The Act for the level of education, general educational minimum and educational plan (last amended 2002);
- Secondary legislation regulations (Regulations, Directions, Instructions, etc.).

The Vocational Education and Training Act, applied by the National Agency for Vocational Education and Training, regulates the conduction of VET. The Act recognizes the right of every person to receive VET, in order to be able to meet the requirements of the labour market. The ordinances to this Act foresee four levels of vocational education, corresponding to the EU classification and the relative International Standard Classification of Education (ISCED'97).

The Act defines the levels of the vocational education (article 8) on the basis of the international models for competence. The professions and the subjects are classified in professional levels by level of education and level of vocational qualification. The four levels of vocational qualification are:

- **First level** - professional competence for practicing of profession, including routine activities, performed in invariable conditions (a base worker level);
- **Second level** - gained professional competence for practicing professions, including complex activities, performed in changing conditions (experienced worker level);
- **Third level** - gained professional competence for practicing professions, including complex activities, performed in changing conditions, as well as taking responsibility for the work of other people (supervisor level);
- **Fourth level** - gained professional competence for practicing professions, including wide range of complex activities, performed in changing conditions, as well as taking managerial responsibility for the work of other people and for allocation of resources (manager level).

The act regulates also the “continuous vocational education” (article 5 and 12) – programs for those, who have graduated their secondary education and are working or are looking for a job. The issue of educational programs and their structure is also treated (article 27 and 28).

The main VET institutions are the centres for vocational training - both state as well as private (article 21). These centres must be legal entities with a license for conducting vocational training, issued by the National Agency for Vocational Education and Training (Article 22).

The institutions responsible **at national level** for implementation of the VET policy are as follows:

- Ministry of Education and Science;
- Ministry of Labour and Social Policy;
- Employment Agency;
- Ministry of Health;
- Ministry of Culture;
- National Agency for VET.

MES is responsible *for the VET as part of the secondary education* and is also responsible for the VET within the frameworks of the formal education, including the education for the adults.

MLSP participates in the development, implementation and coordination of the state policy vocational qualification of labour force (employed and unemployed persons).

EA implements the state policy measures in the area of vocational qualification, offers trainings for vocational qualification to the registered unemployed persons, and in some cases also to employed.

MH participates in the coordination of the List of professions for VET, specifies the chronic diseases and physical disabilities that exclude participation in VET and determines the requirements for health-safety conditions during practical training.

MC participates in the coordination of the List of professions for VET and is responsible for the content, organization and conduction of education or training in the schools for art.

NAVET is responsible for accrediting the institutions in the VET system, developing The List of professions for VET, developing state educational requirements for acquiring of qualification for certain professions.

4.3 INSTITUTIONS FOR ACCREDITATION AND LICENSING OF VET

The National Agency for Vocational Education and Training is authorised by the state for accreditation and licensing of all activities in the field of the vocational education and training. This agency, established in 2000, plays the main role in the development of the vocational training. The main functions of the NAVET are:

1. develops and approves criteria and procedures for licensing and relevant documentation;
2. issues and suspends the licenses for vocational training and orientation;
3. elaborates and offers to the minister of education and science the list of the professions for vocational education and training and the state educational requirements for obtaining of qualification by professions;
4. participates in the elaboration of state educational requirements for the documents in the system of the public education and for the system for estimation in their parts where the vocational training is concerned;
5. develops and approves unified requirements for the conditions, the organization and the content of the vocational training offered by the vocational training centres by professions, whose practicing requires certain qualification;
6. assists for the international recognition of the documents for vocational education and training;
7. creates and support a register of the centres for vocational training and the centres for information and vocational orientation;
8. approves a program for training outside the state educational requirements of the Public Education Act, as well as the requirements of the programs for educational services, provided from physical persons or legal entities to children, students and persons older then 16 years.

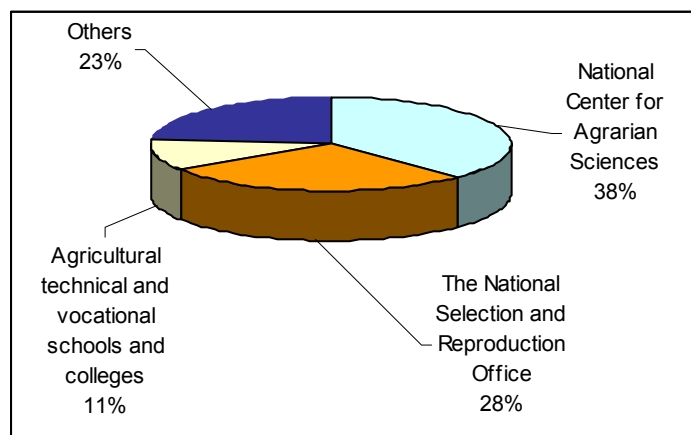
4.4 VET IN AGRICULTURE

Organizing vocational courses for practical and technical skills in the agriculture requires special capacity, existing only in the state educational and research institutes and the big companies. The private vocational education market in the sector is still underdeveloped and does not attract as many private companies as in the other sectors. The lack of appropriate basis is also one of the major obstacles to the private companies, willing to conduct qualitative VET in the sector.

Despite the growing interest towards vocational training and the increasing understanding of the need of raising the qualification among the labour force in the country, the data from National Employment Office show that agriculture and rural areas development are not among the most popular spheres for vocational training. In 2000 only 5 courses for agriculture were organized and 3 of them were for combine-operator.

The main suppliers of VET in agriculture in Bulgaria are the scientific institutes at National Centre for Agrarian Sciences (NCAS), National Selection and Reproduction Office, MAF, agricultural technical and vocational schools and colleges, universities.¹⁰ The Fishery and Aquaculture Institute also participates actively in the conduction of vocational training.

The farmers' groups and producers' associations currently play an important role in the providing of seminars and training activities for their members.



The institutes at NCAS usually offer different types of vocational education - concise courses, “open lessons”, consultations, specialized TV and radio programs. 40 short-term courses with more than 5000 participants were organized in 2000. Most of the courses are oriented towards plant-growing and only few to animal breeding. However these institutes together with the state schools have the experience and means for conducting VET and most probably will be the most active training institutions in future

The Ministry of Agriculture and Forestry finances 99 state schools. They are specialized in three directions - “Agriculture”, “Forestry and woodworking” and “Food-

¹⁰ Analysis of the supply and demand of vocational training in the agriculture, forestry and diversification in the rural areas in Bulgaria, 2001 (in the frame of PHARE project BG 9810-02-01-03: Preparation of detailed measures for the National Rural Development Plan under the SAPARD Programme in Bulgaria.

processing industry". For the academic year 2001-2002 in the schools offering agricultural training/education are trained 24% of all students in all schools in the country.

The main subjects in which the training schools and institutions has traditions are:

- "Cultivator"
- "Farmer"
- "Agricultural mechanization"
- "Forestry mechanization"
- "Silviculture and logging"
- "Timber processing and internal decoration"
- "Food processing technician"

With development of the market economy and the SMEs sector, together with increase of the opportunities for self-employment the VET had to meet the labour market need of certain skills and qualifications. The consequent VET development was encouraged also by the revived development of activities, formerly traditional to Bulgaria. Following this tendency some new subjects were recently established:

- „Wood-carving”,
- "Restoration of stylish furniture and woodwork”,
- "Technology of pharmaceutical and perfumery and cosmetics production”,
- "Perennials cultivation”,
- "Plant protection and agro-chemistry”,
- "Vine-growing and Wine-production”,
- "Forestry and Hunting”,
- "Wine technician”,
- "Small enterprise management”,
- "Hotel management ”,
- "Park construction” etc.

In the last few years new sub-sectors of the agriculture gain impetus, in consistence with the MAF ambitions towards diversification of the rural areas¹¹. The State support for the development of certain sub-sectors called for immediate respond from the educational and training institutions through creating of new subjects, such as herb-gathering and herb-processing, rural tourism etc. In the process of introducing of new subjects an emphasis is laid upon the economic and demographic specificity of the region, the labour market needs and the participants' requests.

There are few state-owned **universities** offering bachelors and masters degree courses in number of agricultural and agro- economic specialities. The prevailing financing is from the state budget (for the university education schemes) and self-financing (paid courses) for their post -diploma institutions. The universities are making attempts to be market oriented. They make their own TNA and try to offer attractive courses. In the framework of some international projects the universities have developed links with other prevailingly European universities and institutes. The results are joint programmes and courses.

The universities are relatively well equipped. Normally they have enough lecturing halls, demonstration farms, administrative capacity for offering and managing short and long-term courses. The Tracian University - St.Zagora has more than 20 lecturing halls, Agrarian University in Plovdiv 80 halls and Post-Diploma Education Institute at UNWE - Sofia - 18 lecturing halls. The universities have enough lecturers and technical staff- 80 lecturers in Post-Diploma Institute in UNWE, 620 lecturers in Tracian University, 230

¹¹ National Agriculture and Rural Development Plan over the 2000 - 2006

lecturers in Plovdiv. The Universities participate actively in international projects especially in numerous Tempus projects.

Specialised institutions for post-graduate studies are set up in the three universities. Gradually these institutions have developed number of vocational training courses. The problems with Universities as providers of VET are linked with the facts that they are not specialised in VT courses and it is not very clear how they will meet the requirements of the very practical, not academic type of education and training such as VET.

4.5 SAPARD PROGRAM AND THE MEASURE “IMPROVEMENT IN VOCATIONAL TRAINING”

SAPARD (“Special Accession Programme for Agriculture and Rural Development”) is one of the EU instruments, preparing the candidate countries for their future EU membership. The programme will be implemented for a 7-years period - from 2000 to 2006. The objectives of the programme are development of effective agricultural production and competitive food-processing sector, through improvement of the market and technological structure and strategic investment policy for achieving of the European standards; and sustainable development of the rural areas in conformity with the best environmental practices through generating alternative employment, diversification of the economic activities and construction of the relevant infrastructure.

One of the accredited SAPARD measures is “Improvement in Vocational Training”. The scope of individuals to be trained under this measure is broad and includes the targeted training of farmers and forest holders as well as operators, involved in various sectors and with different levels of responsibility, and finally the training of farmers. Special attention is paid to the training of women as well as of young farmers.

The measure’s objective is clearly defined in Article 9 of the Council Regulation 1257/99: “The Support for vocational training development will contribute to the improvement of the professional skills and competence of the farmers and other persons, employed in the agriculture and forestry.”

The measure enables the farmers to apply for free training. It allows beneficiaries to acquire knowledge, skills and qualifications, directly connected with their investment projects. One of the requirements of the programme is the candidate to demonstrate, that he/she has the necessary qualification and experience in the sector in which he applies for financial aid. If this requirement cannot be fulfilled, the candidate must submit a certificate that he/she has passed a 150 hours course for vocational training.

Indirectly, the measure encourages also development of the training institutions themselves.

Under this measure MAF organizes training for agricultural producers, tobacco producers and forests owners willing to be trained. 150-hours and 30-hours courses are organised. Each course provides four levels of training - Level 1 – Basic skills; Level 2 – Specialist skills; Level 3 – Supervisory skills; Level 4 – Management skills.

The structure of the 150-hour courses for enterprise management (livestock and crops) is as follows:

Content of training for crop production:

1. Practical farm and enterprise management
2. Marketing of agricultural products
3. Maintenance of agricultural machinery (specialised depending from the type of investment)
4. Ecology and plant protection
5. Crop production technology (specialised depending from the type of investment)

Content of training for livestock production:

1. Practical farm and enterprise management
2. Marketing of agricultural products
3. Maintenance of machinery in the livestock production
4. Veterinary hygiene and protection
5. Forage, feeding and breeding of livestock

The structure of the 30-hour vocational training courses includes:

1. Farm holdings courses
2. Livestock production courses
3. Horticultural production courses
4. Arable production courses
5. Vegetables, essential oils, grain and oil-yielding cultures, perennial medicinal plants, flowers, high quality tobacco and cotton
6. Agricultural business and farmer cooperatives
7. Farm diversification courses (bee-keeping, silk-worm breeding etc.)
8. Non-farm diversification courses (eco-tourism, farm-based crafts etc.)
9. Forest production courses
10. Courses on forest management
11. Courses on forest business
12. Courses on forest conservation
13. Courses on forest recreation

The official start of the measure was on 1 September 2003, but up to the end of February 2004 still any tender procedures for selection of training institutions are not announced. In progress is collection of applications from the agricultural producers/forest owners, members of their families and people working in the holdings.

3.6 CONSULTANCY SERVICES IN AGRICULTURE

In the years following 1989 consultancy sector in Bulgaria experienced a considerable growth. The country ranks to one of the first places in Europe by the growth in the consultancy sector. Despite the intensification the Bulgarian consultancy market is rather small, if compared to the markets of the neighbouring countries and the Central European countries. However, the changes in the economy, the private sector growth and the commencement of the EU and other external sources funded programmes resulted in increased need of consultancy services.

The biggest problem, which the private companies usually face, is the lack of access to available funds. This is a difficulty also in the agricultural sector, where most of the entrepreneurs are comparatively newly established and experience lack of capitals and skills, necessary for application for funding.

The increased need of consultancy help led also to increase in the number of the private companies offering consultancy in the field of agriculture. However, most of them are mainly working in other spheres of economy, which pose the question for the level of their acquaintance with the sector and the quality of their services.

Since the end of 1995 the National Agricultural and Advisory System was formed as a joint project between MAF and the Agricultural Academy under the Phare project. Following a Degree of the Council of Ministers (adopted on 28 December 1999|) the National Agricultural and Advisory System become the **National Agricultural and Advisory Service (NAAS)** with own budget.. Its major task is to implement the government policy in the sector through extension of reliable information, expert advice and consultations to agricultural producers thus facilitating their effort at developing efficient and competitive agriculture in accordance with the EU requirements.

NAAS comprises of 28 Regional Agricultural Advisory Services (RAAS) and an Analytical Laboratory. Its activity is targeted to clarification of the National Plan for Agricultural and Rural Development 2000 – 2006 and its priorities among the agricultural producers, supporting of the farmers with professional consultancy assistance in their efforts to establish competitive and effective agriculture and in the process of introduction of the Good Agricultural Practices. NAAS issues and distribute information, advertising and other materials for training; assists in establishing of producers' organizations; supports the elaboration of projects and process charts, preparation of model projects, analyzing of soil samples; advises on the fertilizing of the agricultural crops. Only for 2002 experts from NAAS have provided 25 795 consultations, as the on-spot consultations turned out to be the most effective and applicable for the agricultural producers. 790 information bulletins with advertising and educational nature were issued, as well as working calendars, brochures, training newsheets, technologies; 673 articles in national and regional press and the specialized issues, 313 participations in radio broadcasts, 296 TV appearances. More than 5000 information materials have been delivered to clients of the Service.

Significant part of the NAAS's work is the conduction of "demonstrations" and "open days". They have practical purpose and very good effect on increasing of the local agricultural producers' skills and knowledge. Another NAAS main activity is the conduction of thematic seminars, accompanied with lections and discussions, addressing problems of interest for wide range of the agriculture producers.

The services, rendered to the agricultural producers are free. NAAS is financed by MAF budget.

3.7 LEVEL OF MANAGEMENT CAPACITY IN AGRICULTURE

The level of knowledge and skills in the field of management and marketing in the agriculture is currently low. But in the recent years the agricultural producers show higher motivation towards acquiring more qualifications and skills. To a great extent this is a result of the increased recognition of the agriculture as a profitable and promising sector. In the process of implementation of aid funded programmes, the agriculture producers became more and more aware with the fact, that if they want to be eligible for financial support, they have to gain managerial skills and knowledge: to plan their production, to look for markets for their products, to analyze their financial condition. Another reason is that in the recent years the access to information on the importance of the management and marketing knowledge is increasing.

There is a lack of precise information on the level of management skills and knowledge in agriculture. In the structure of MAF are established registers of the producers of agriculture products according to the Act on the Agricultural Producers Support and the Tobacco Act. The requirement for registration is bound to the allotment of financial aid under national schemes and external financing instruments. It can be assumed that the registered producers represent the more active part of the agricultural entrepreneurs, who are looking for opportunities for support. They also keep accounting according to the legislation, sign contracts for sale of their products, and secure their production with the necessary materials. The registered agricultural producers as of the end of 2003 are 40 361, 6 436 of which are legal entities. The registered tobacco producers as of the end of 2003 are 64792. There is an evident increase in the number of registered producers since 2001.

Table 8 Registered agricultural producers

	2001	2002	2003
Individuals	26678	33633	33925
Legal Entities	2381	4203	6436
Total	29059	37836	40361
Tobacco producers	47784	60076	64792

Source: MAF, Agrarian report 2003

The larger-scale agricultural producers have better managerial skills - they sell rarely their production to casual middlemen, keep accountancy and more often have computers and mechanization. For this group of producers the business management subject is interesting¹². Preferable subjects are business plan development and methods for production realization, information on the market etc.

¹² Study on the potential for economic development under "Job Opportunities through Business Support" Project (JOBS), 2001. The JOBS is executed by the Ministry of Labor and Social Policy with the support of the United Nations Development Programme (UNDP). The JOBS project aims to enhance the economic development of regions with high unemployment levels by creating a sustainable environment for job generation through support to micro and small companies and agricultural producers.

For small-scale producers, most of which are not registered under law, the agriculture has not become business yet. Indicative for the level of production planning is the fact that a significant number of small-scale producers sell their production to casual middlemen. They slightly use the information, rendered in bulletins of MAF and their personal contacts are their main source of information. At the same time they point as a main problem the difficulties in finding a market for their production realization, which suggests that the development of skills for production planning will take more and more important place for the small-scale producers. Another special feature for small-scale holdings is the absence of book-keeping.

The new methods in the field of plant-growing and animal breeding are preferred subjects for education for small-scale agricultural producers. At the same time their future existence and the successful business development to a high degree is dependant on gaining of knowledge for finance management, book-keeping, production planning, marketing etc.

5 ANALYSIS OF VET NEEDS IN AGRICULTURE

Because of the limited time, independent research on the needs of vocational training in the country was not possible. The current analysis steps on two studies conducted from NAAS and UNDP¹³.

In **NAAS research** are included large-scale producers and it was conducted on the territory of the whole country, excluding Targovishte (no filled questionnaires are received from this region). The respondents of the NAAS research represent all main sectors of the Bulgarian agriculture – milk cows, beef-cattle, sheep, pigs, fowl, cereals, vegetables, vineyards, sunflowers, tobacco. Only 13 % of them cultivate less than 100 dka.

The **UNDP research** is narrower and includes farmers from 8 municipalities – Aitos, Velingrad, Gotze Delchev, Devin, Nova Zagora, Polski Trambesh, Razlog and Samokov. It refers primarily smaller-scale family farms, where the husband/wife of 56 % of the respondents is also working in the farm, and in 40% of the cases the children also work there. 31% of the interviewed producers control less than one hectare land and 42% - between 1 to 10 hectares. These are the most typical sized agricultural holdings in Bulgaria.

5.1 TRAINING NEEDS

5.1.1 *General training needs*

The results from both surveys (74% of the NAAS survey and 53% of the UNDP survey) show clear understanding of the need of training among the farmers/producers, their families' members and workers, employed in agricultural holdings. This is indicative for the potential demand of training. The two surveys, as far as they are targeted on different sized producers, show also some differences. The NAAS survey indicates that the need for additional vocational training is more recognized amongst the commercially oriented farmers.

5.1.2 *Specific training needs*

A. Practical skills training need

65% of the interviewed in NAAS survey are aware that the practical skills are the main factor, contributing to the success of the farm business.

The demand of practical farmer skills, supplement with improved animal breeding techniques and relevant business training, is corresponding to the future plans and the former problems of the respondents. 68% of the interviewed in the NAAS survey intend to increase their production in the next three years and are convinced that they will not be able to do it, without increasing their practical professional qualification.

B. Technical skills training need

¹³ National Human Development Report 2003, Rural Regions: Overcoming Development Disparities, UNDP.

The Bulgarian farmers are oriented mainly to the production, rather than to processing. 53% of the farmers (in both samples) have expressed their need for improvement of the crop production techniques, 35% (NAAS) and 28% (UNDP) have defined as important the improvement of the animal breeding techniques. A discussion with the agricultural producers shows that many of them realize that their basic agricultural practices need to be modernized and improved.

Only 32% (NAAS) have defined as a priority the need for environmental management skills and 18% (NAAS) have defined as a priority the need for hygiene, health and safety training.

5.1.3 Business skills training needs - farm management, production planning, entrepreneurship and innovations

Many of the agricultural producers admit that a priority must be given to the practical business skills training. The majority of the farmers affirm that they don't have access to market and business information. 57% (NAAS) and 64% (UNDP) stress on the importance of the training in field of the market information use and increasing the conversance.

The following priorities in the field of business vocational training have emerged on the basis of the received answers:

- Business investments/planning training (45% in NAAS survey and 26% in the UNDP survey)
- ICT training (32%-NAAS and 18%-UNDP)
- Financial management training (31% - NAAS)
- Personnel management training (27% NAAS)
- Food marketing techniques (25% - NAAS and 29% - UNDP)
- Producer groups /association training (20% NAAS)

The agricultural producers in Bulgaria still do not have the self confidence of entrepreneurs; they have a very limited skills and knowledge in the field of farm management and rarely plan their production according to the market demand. And if in the large-scale entities, mostly the co-operatives, there are certain traditions in the management and planning, in the small-scale entities the business skills are now deriving. The number of the agricultural producers introducing new technologies is limited. The business knowledge is still complicated and unfamiliar ground. The survey shows that 45% of them realize the need of additional training in business investment/planning, but only 25% agree that they have to improve their marketing skills. At the same time in the interviews they state as a main problem the difficulties in finding market for their production. About 30% of the responders in the NAAS research point out as an obstacle for the growth of their business the market tightening and insecurity, as well as the low prices. The improvement of the business skills is considered as an important factor for solving of this problem.

The small-scale producers do not realize the importance of the management and business skills training. The smaller is the agricultural producer, the lesser he/she realizes the role of the business management and production planning in the agriculture.

In the EU pre-accession process the importance of the training in farm management, production planning and entrepreneurship for the Bulgarian farmers will increase

constantly. The strong competitive pressure from the member state's agriculture, will force them to obtain skills for managing of farms in changing environment.

Both surveys show the existence of latent need of wide range of training in agro-business, including resource and financial management, planning and computer literacy. Most of those elements are in fact "basic business skills" and can be adapted from a number of other non-agriculture sectors in Bulgaria.

5.2 TRAINING PREFERENCES

5.2.1 Duration of the training

The nature of the agricultural production, together with the fact that most of the producers are small-scale (they count mainly to their own and their families' effort) define their preferences to rather brief trainings.

The middle-term courses (up to one week) are preferable (49% of the NAAS respondent and 58% UNDP respondents). The short-term activities (one or half day) are preferred by 32% of the respondents of NAAS and 22% of the respondent of UNDP.

5.2.2 Location of training

As the majority of the agricultural holdings are in fact family business, the place and duration of the training activities are essential for ensuring attendance. The agricultural producers prefer the training to be conducted outside farms (40% - NAAS and 42% - UNDP). However, another part likes better the training and the demonstrations to be located in the farms (27% both in the NAAS and UNDP surveys).

Farmers clearly prefer the seminars and the actions to take place close to the towns and villages where they work. 64% prefer the trainings to take place in the respective municipality and 33% would participate if the training is conducted in the district. Only 3% would attend training conducted in the capital. This illustrates a low mobility of the farmers and is connected to the high transport costs, the expensive hotels, as well as the time for quitting the work.

Very few of the agricultural producers have hired workers to take care for the farms while they are away. This is the reason why they mention as a difficulty leaving the work for more than a day. From the researches results is evident that in 87% of the cases the farmer must be replaced by a member of his/her family, while he/she visits the courses and the seminars.

5.2.3 Preferred providers of training

According the NAAS respondents the preferred organizers of the training are NAAS and the Research Institutes, while the UNDP respondents prefer the Agro-business centres and the Research Institutes. Less preferred are other organizations, including schools/colleges, universities, organizations of producers and other non-profit organizations. The cooperation between the wide range acting organizations, offering training shows, that there is a potential for building and encouraging of the partnerships

between them – institutions, organizations of producers and farmers groups, consulting services and private consulting companies.

5.2.4 Financing of training

The surveys results show that the participants (the agricultural producers) have paid themselves for the majority of the seminars and training activities, organized up to now. This is indicative for their readiness to pay for courses, which they recognize as answering to their needs and are organized in a place and time convenient for them. Some companies, supplying resources, sponsor part of the training. The participation of the equipment and raw materials suppliers in the agriculture vocational training support is very important at present.

6 CONCLUSIONS AND RECOMMENDATIONS

- There is apparent potential for vocational training among the private farmers. This potential is higher among the large-scale, market oriented farmers. Additional motivation for training is the EU and other sources funded programmes, which require a certain level of competence and professional skills.
- The vocational training market is still underdeveloped. Main suppliers are the existing educational and research institutes, which have the necessary basis and experience for practical and technical education.
- Predominating are the farmers willing to increase yields and production volume, rather than production effectiveness, creation of higher added value resulting from better production quality and ability to find new market niches.
- Prevailing is the technical training demand. 64% prefer to obtain practical and technical skills in the agriculture production, especially in the plant-growing and the animal breeding.
- The training in business management and planning is still not recognized as important. Even among the large-scale producers the need of above mentioned type of training is not fully understood. Even lower is this understanding among the smaller-scale family holdings. The need of training in investments and marketing skills is recognized from only 28%, and they still prefer the market information (64%), which is a result of their lower educational level.
- The agricultural producers prefer vocational training, conducted in a place convenient for them, flexible and short-term.
- There is also a potential in the ICT use in the vocational training. It would meet the need of flexibility and saving time in the training, especially concerning the farmers in the animal breeding, who cannot leave the farm for long. This type of education can attract mainly up to 40 years old farmers, who are computer literate.
- A potential exists for development of local partnerships for vocational training, for inclusion of bigger number of users, e.g. the different information and training suppliers and the beneficiaries themselves.
- The farmers' groups and producers' associations currently play an important role in the providing of seminars and training activities for their members. 67% of the members declare that they attend those activities.
- The agricultural producers are ready to pay for the seminars and the training activities, organized by the associations.
- There is potential for VET development in the field of low input agriculture - organic farming and other integrated agri-environment issues.

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