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The situation in Latvian agriculture in the context of European and global agricultural trends

Abstract. This scientific paper presents a consequent research of actual problems, trends and challenges in agricultural sector worldwide, in Europe and Latvia starting from global outlook and ending up with Latvian nationwide scale. The analysis of global and EU agricultural trends and problems has revealed that they all to a greater or lesser extent refer to Latvia as well. Thus, it can be stated that an analysis and application of worldwide experience in solution of Latvian agricultural problems would be utmost precious and useful, while taking into account not only mature economies as Scandinavian countries, but also experience of developing countries to which Latvian agriculture is more related. Novelty of this research consists of a consequent analysis of the situation in Latvian agricultural sector in the context of European and global agricultural trends. Practical effect of this research is based on the conclusion that the Common Agricultural Policy of the EU does not have any sufficient economic feasibility, as the EU Member States are not uniform in their vision of common agricultural policy, but separated in country groups with different agricultural problems and trends.

Key words: Latvian agriculture, Common Agricultural Policy, European Union, global agricultural trends.

Introduction

The Gross Domestic Product (GDP) of Latvian agricultural sector over the 2000-2009 period increased at current prices from 110884 Latvian lat (LVL) thousand up to 171245 thous. LVL or by 54.4%. according to the Central Statistical Bureau of the Latvian Republic (hereinafter LR CSB) [Table IKG061… 2012]. Meanwhile, the real GDP increased by 16.3% over the 2000-2009 period[2]. However, the crisis of 2007-2009 resulted for the Latvian agricultural sector in a sharp decline. The branch GDP as a key growth indicator dramatically dropped from 239209 thous. LVL to 171245 thous. LVL or by 28.4% [Table IKG061… 2012]. Despite the fact that the GDP decline was observed over the crisis period in all branches of Latvian economy, the agricultural sector experienced the heaviest fall. The average decrease of GDP in other sectors of the national economy was almost 3 times smaller than in agriculture (total GDP decrease at current prices was 9.3%) [Table IKG061… 2012]. In this regard, the situation in Latvian agriculture requires a special attention of researchers and practitioners. This is one of the economic sectors which experienced the worst impact of the crisis. In its turn, ramifications of the crisis might lead to irreversible changes which address new challenges for Latvian farmers. Another significant factor that defines a relevance of this research is the fact

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[2] Author`s own calculations based on data from the Latvian Ministry of Agriculture [Latvijas… 2004, p. 11; Latvijas… 2006, p. 14; Latvijas… 2009A, p. 14; Latvijas… 2009B, p. 22; Latvijas… 2011, p. 20] and the World Bank [Agriculture... 2010].

that the Latvian agriculture is incorporated in the context of European and global agricultural trends. Consequently, the study of the situation in Latvian agriculture is impossible without relevant analysis of European and global agricultural trends.

There are extensive discussions in Latvian media on 'the greatest paradox' of the Latvian countryside which is a situation, when 'farmers have no work, when thousands of hectares are overgrown with hogweed and creeping thistle, while the customers at supermarkets buy Polish potatoes, Dutch tomatoes, cucumbers, cabbages..." [Seleckis 2011]. Agricultural problems are widely discussed also in scientific community of Latvia, with attempts to find a scientifically substantiated explanation for the 'greatest paradox' of Latvian agriculture. Besides, there is another problem, namely 'the majority of the rural population does not wish to apply new and innovative ways of earning money in their economic practice' [Liscova 2011, p. 8].

Thus, the objective of this paper is to analyze the most actual development problems, trends and challenges of the agricultural sector in Europe and worldwide, which form the basis for development of Latvian agriculture. As it has already been mentioned, it functions not separately, but in connection with global trends in agriculture, so far it produces agricultural commodities. In order to achieve the objective of this research, the author has carried out an analysis of statistics which describes the developmental tendencies of global, European and Latvian agriculture, as well as an analysis of the global, European and Latvian analytical reviews. In her research the author is basing also on the actual scientific works by Latvian researchers on economic and social problems of agriculture [Jirgena 2009; Siliņa 2009; Baraškina 2010; Šūmane 2010; Liscova 2011].

The paper is structured into three sections. The first focuses on the global trends of agriculture and food security in relation to the agriculture of Latvia. The second section presents an analysis of trends and challenges in the development of European agriculture, while the third section focuses directly on the situation in Latvian agriculture.

The global agriculture and food security trends and the challenges related to Latvian agriculture

International organizations consider an increase in the prices of agricultural products as one of the main global problems, which has its direct impact on agricultural sector and food safety in various regions of the world. Nevertheless, in the early 2000s, a decrease of the worldwide food prices diminished or was at least interrupted with an increase of food prices in real terms, reaching its culmination in 2007-2008. Although the worldwide prices of food decreased a little in 2009, they still remain higher than in previous years. The statistics as on October 2010 show that the Food Price Index increased again within the time period from 2009 to 2010 [The State… 2011, p. 15].

It seems at first sight that an increase of agricultural products prices is a serious problem for the population, not for the farmers. Nevertheless, when analyzing this subject from the standpoint of economic theory, it is to be noted that an increase of prices (due to low productivity of agricultural sector) leads to a deterioration of the competitiveness of agricultural

production. It hinders the integration of local farmers to the global market of agricultural products. For example, a large amount of local potatoes, carrots and other vegetables was left in the fields in Latvia in autumn of 2011 and Latvians were buying in stores cheaper imported agricultural products.

The second significant global problem of agriculture, to which one must pay particular attention, is the price instability in the global markets of agricultural products. Although the instability of prices has always been typical for the markets of agricultural products, there are tendencies nowadays, due to which this phenomenon should be particularly emphasized. The climate changes can lead to more frequent extreme events, eventually to shocks at the agricultural markets. The expansion of biofuels production, which is based on agricultural products, will make agricultural markets more dependent on the global markets of energy resources.

Latvia also has its own practice of establishing food security networks and mechanisms. Ffor instance, the Food Bank, which is a food program of the www.ziedot.lv charity portal. The Food Bank, in cooperation with local charity organizations, renders assistance to needy inhabitants by distributing food packages to inhabitants throughout Latvia.

The food security issue which is actual on a worldwide scale, and which refers to Latvia as well, is closely related to the agricultural sector, where there is often a surplus of manufactured products (as, for instance, in Latvia in 2011). This surplus remains in the field, without being used for the implementation of social programs in the sphere of food safety.

Another global problem, which is very important, and which is closely related to the sphere of agriculture, is the condition of worldwide land and water resources for food production and agricultural activities. The research on this topic was carried out in 2011 by the UN Food and Agriculture Organization, and the review was issued in the same year [The State… 2011, p.26]. This review describes the condition of the worldwide land and water resources, which are necessary for food production. It analyzes corresponding threats to food security and to sustainable development. The UN Food and Agriculture Organization emphasizes that these threats have not come into existence only due to the relative shortage of land and water, but also due to its inefficient utilization.

Nowadays, latest global agricultural trends are characterised by climate changes, population growth worldwide and changes in nutrition habits. They all predispose to transformation of current agricultural production methods. According to the assumptions of the UN Food and Agriculture Organization, population and income growth by 2050 will result in an increase of demand for global food production by 70%, whereas demand in developing countries will rise by 100% as compared to 2009. Nevertheless, allocation of land and water resources in the countries with a low developed agricultural sector is not favourable. Availability of farm lands in the countries with a low income level is per capita more than twice lower than in countries with a high income. Some countries which are characterised by a rapidly rising demand for food, meanwhile experience severe shortage of land and water resources. Obviously, future growth of agricultural productivity might be achieved mainly by means of business intensification on existing agricultural lands. In its turn, this will require both a large scale implementation of a long-term land management and an efficient water

management of land irrigation by improving the flexibility, safety and simultaneity of water supply. In addition to the problem of availability and sufficiency of land and water resources, it is worth to mention the problem of agricultural land productivity. According to the global research, this productivity 'varies dramatically worldwide' [Todaro & Smith 2011 116].

Table 1. Comparative table of agricultural productivity worldwide

Country	Comparison of agricultural productivity (added value per 1 worker in 2005-2007, constant dollars of 2000), USD/worker/year	Average grain crop in 2006-2008, kg per hectare
Average worldwide	1 016	3 397
USA	45 015	6 578
Japan	39 368	5 977
United Kingdom	28 065	7 110
Latvia	3 260	2 770
Russia	2 914	2 092
Sudan	844	600
India	460	2 574

Source: [Implementing... 2009, p. 44].

The data summarized in Table 1 shows that Latvia with its agricultural productivity belongs to developing countries, and the author believes that herein is embodied one of the key challenges that is addressed to Latvian agricultural sector.

Based on the analysis of actual problems in the agricultural sector worldwide, the author has come to the conclusion that the Latvian agricultural sector will have in the future better climatic conditions, favourable for agricultural activity, but at the same time these conditions will deteriorate in developing countries with a relatively high population density. In a logical consequence, it follows that Latvia will be forced to 'share' its physical agricultural resources in order to make its contribution to the alleviation of global food crisis.

Having studied further growth prospects for the global agricultural sector, the author discovered the factor, which is currently known as a retarding growth factor, i.e. a disproportional distribution of agrarian property in many countries worldwide [Otsuka et al. 1992, p. 1973]. According to the statistical data of 2010 from the Central Statistical Bureau of the Latvian Republic, the ratio of small farms (less than 5 ha of utilised agricultural lands) to the total number of farms stood at 34.0%, whereas the ratio of large farms (more than 50 ha of utilised agricultural lands) stood at 6.5%[3]. In its turn, small farms cover 4.0% out of the total utilised agricultural lands and large farms 57.5%, which is more similar to the developing Latin American countries. The average area of utilised agricultural lands in Latvian farms is more similar to Latin America than to Asia and amounts to 21.5 ha[4].

[3] Author`s calculations based on LR CSB publication [Table LSK10-I11… 2012].
[4] Author`s calculations based on LR CSB publication [Table LSK10-I11… 2012].

So, the analysis of experience and the current situation in agricultural sector of developing countries would be highly useful for Latvia, as results of the author`s research have revealed that Latvian agricultural sector often faces the same problems as developing countries.

Agricultural problems in Europe

The main problems of the EU agriculture are: competitiveness, farmer's income level, shape of agricultural policy (relationship between 1 and 2 pillar) [How… 2012]. An analysis of the European agricultural sector reveals that in recent years the EU and its Member States have experienced a real growth in the agricultural sector; this growth is backed by two structural growth indicators which are the sector's growth and labour productivity. Thus, it can be inferred that the EU agricultural sector has no reasons for worries. Nevertheless, the problem still exists and it lies in the third structural growth indicator which is the extent to which the EU agricultural sector has provided a growth in the living standards of the EU residents. It is measured by the real GDP produced by the sector or by the agricultural output per capita. It turned out that the total 'contribution' of the EU agricultural sector to the growth of EU population living standards over the 2004-2011 period was negative. It points to the fact that the EU agricultural sector is able to a lesser degree to provide the EU residents with growth of the living standards. That is, most likely, a typical agricultural problem of the 'old' Europe (with its steady population growth and rather slow growth of both the GDP [Prospects… 2011, p. 23] and the agricultural output [Economic… 2011] as compared to the EU-12). This brings up the question, if all Member States have common interests in the agricultural sector as it is declared by the EU Common Agricultural Policy.

To answer this question, the author has carried out a cluster analysis based on three indicators, i.e. demographic dynamics, cereal production (as the main product of European agriculture, from the point of view of Eurostat) dynamics, agricultural income dynamics (in percent, over last three years) [Europe… 2012; Economic…values… 2012; Population… 2012; Economic… agricultural… 2012]. As a result, the EU Member States have been divided into three different groups:

- states with the highest population growth, an average increase in cereal production and the slowest income growth in the agricultural sector (Belgium, the Netherlands, France, Germany, United Kingdom etc.)
- states with a decrease in population and cereal production, but at the same time an income growth in the agricultural sector which is twice more than in the first group of countries (Latvia, Lithuania, Bulgaria, Hungary, Romania)
- states with the most rapid income growth in the agricultural sector and the most significant decrease in cereal production along with a slow rise in population (Denmark, Estonia, Poland).

In the author`s opinion, the first and the largest group of countries initiates and moderates the EU Common Agricultural Policy. The author believes that in the context of 'one of the goals set by the EU Common Agricultural Policy is to provide sufficient living standards for

farmers' this by chance did not appear because the slowest growth of income in the agricultural sector is observed exactly in such group of countries which are the key donors to the EU structural funds.

By the definition of the UN Food and Agriculture Organisation, Europe mainly consists of regions with moderate climate and with intensive agricultural production, to which key threats are soil and water pollution, loss of biodiversity and ecosystem degradation around fresh water sources [The State… 2011]. The UN Food and Agriculture Organization and European scientists are at one in their conclusion that one of the key socioeconomic and environmental problems in Europe is soil erosion as a kind of physical degradation of agricultural lands, though noting that this problem is more actual for Southern Europe due to its disastrous effect than for Northern Europe, where soil is less destructed by erosion [Montanarella 2011, p. 5]. Soil erosion leads to a decrease of agricultural productivity and ecosystem degradation. More than half of European utilised agricultural areas are endangered by erosion which is caused by water and in one-fifth by wind [Europe's… 2011, p. 17].

On the other hand, the EU farmers are familiar with and widely use in their practice such preventive agricultural measures as control of soil erosion, crop rotation, organic production etc. In opinion of scientists, the significance of the aforesaid measures in farming is of a vital importance in the context of EU Common Agricultural Policy [Franzke et al. 2003, p. 4].

Situation analysis in the Latvian agricultural sector

The situation in the Latvian agricultural sector is quite well explored. Advanced research facilities of the Latvian University of Agriculture, economists and sociologists have contributed to studies of current situation in Latvian agriculture and its historical background.

Two key factors have had their strong impact on the contemporary rural reality in Latvia [Šūmane 2010]. Firstly, period of Soviet collectivism and subsequent structural socioeconomic and political changes after 1990. They were driven by two crucial factors, namely transition to the market economy and restoration of democratic form of government. For rural areas it meant restructuring of rural economy (de-collectivisation and privatisation) and formation and development of civil society. The impact of Latvian accession to international organizations, in particular the European Union and the World Trade Organization, is also not to be underestimated, as it played a crucial role in setting up priorities and defining standards, achievement of which was backed by a financial support. Accession to the WTO enabled Latvia to introduce and implement proven practices and knowledge, standards and tactical models which are widely applied in the Western Europe, thus offering some innovative solutions to local problems (for instance, the EU LEADER program enabled Latvia to implement the principle of partnership aimed at local development). However, following external standards without regard to local specificity can also be a constraint for the development.

As a result of the structural changes in economics and society dating from 1990, rural communities faced an escalation of such social and economic problems as the unemployment, poverty, social detachment, relative deterioration of social and economic infrastructure, limited

access to some services etc. In recent years, rural socioeconomic and demographic situation has been worsened due to short-term departures of rural inhabitants or their moving abroad. These deep-rooted problems significantly reduced the rural human and social capital, thereby limiting the rural development potential [Šūmane 2010, p. 53].

Agricultural development is still strongly affected by economic transformations of the early 1990 which are de-collectivisation and restoration of private property [Šūmane 2010, p. 27]. In the agricultural sector, they resulted in liquidation of collective and state farms or their re-organization into other collective activity forms (companys and cooperatives), restitution of former pre-war property, privatisation, setting-up of private farms. Over the short-term period 800 large farms were replaced by 200000 private farms [Tisenkopfs 1999, p. 78], which were small or medium size. Although in recent years the agricultural sector tends to consolidation of agricultural production, at least five years ago 84% of the total number of farms were small holdings which produced agricultural products mainly for their own consumption [Latvijas… 2006, p. 37].

Nowadays, Latvian authorities provide farms and rural businesses with a wide range of support measures. Thus, the 'arsenal of measures' of the Ministry of Agriculture of Latvian Republic contains such support tools as national subsidies, support for biofuels production, direct support for production of bioethanol and biodiesel, indirect state support (alleviation of the excise tax), loans aimed at purchase of working assets, loan guarantees for rural business etc. [Latvijas… 2011, p. 48].

To conclude, it can be stated that almost all Latvian relevant institutions have been deeply involved in the analysis of situation in the Latvian agricultural sector in general, and in rural communities in particular. From the author`s point of view, the specialists of Latvian State Institute of Agrarian Economics (LVAEI) have shown the main agricultural trends in the Latvian agricultural sector related to its growth in the penultimate year, i.e. negative growth in crop output (-7.3%) and positive growth in cattle breeding (+3.2%), labour productivity growth (+60.1%) (one of the most significant sectoral indicators), growth of living standards provided by the sector (+38.8%). Other actual challenges are rising prices of agricultural commodities (+14.8%) along with decreasing prices of purchased resources (-0.6%), deterioration in sectoral employment (-9.0%). Nevertheless, the aforesaid indicators suggest that the Latvian agricultural sector has some potential for its further growth and development. While disputing about further implementation of the EU Common Agricultural Policy, the most important issue for Latvia, from the point of view of politicians, is the revision of direct payments system [Latvijas… 2011, p. 25]. However, based on the statistical analysis, the author assumes that from an economical point of view, Latvia with its rapid decline in population and 16% of uncultivated lands out of all utilised agricultural areas [LIZ… 2012], can hardly justify its claim for largest amount of direct payments to its agricultural sector, unless it offers its uncultivated lands to migrants who deem to be a heavy burden for the 'old' Europe.

In her analysis of the situation in Latvian agricultural sector, the author brings to the forefront mainly four sectoral growth inducers, i.e. investments, labour force, export of commodities/services and economically active market entities which are included in the economic growth model elaborated by the author [Svarinska 2011, p. 101].

The results of the author`s research reveal that investments in agriculture (including forestry and fishery) form 3-5% of all non-financial investments to Latvia and approximately 2.5% of foreign investments in equity of Latvian enterprises. As for the workers engaged in the agricultural sector, about 90% of all workers are employed in farms with the total number of workers up to 5, including herein approximately 55% of the farms with 1-2 workers, i.e. family farms. Overall, human potential in Latvian agricultural sector is quite low in terms of education and age (including farm managers). The analysis of agricultural export capacities points that Latvian agriculture has quite low export potential. Nevertheless, combined with food industries, which produce the highest added value in agricultural commodities, agricultural exports stand for approximately one fifth of the total Latvian exports. The analysis of agricultural enterprises reveals that for the period 2005-2010 the share of agricultural enterprises in the total number of Latvian enterprises dropped by 6.7%. Notwithstanding this trend, the author does not consider it unfavourable, because, as it was mentioned before, it is followed by an extension of agricultural areas, i.e. an increase of capacity; although insufficiency of farm size for most holdings is a significant matter of concern for the Latvian agricultural sector.

Taking into account that global/EU agricultural challenges and problems also refer to Latvia, the author can conclude that using worldwide experience in solution of Latvian agricultural problems would be much precious and useful. Attention is to be paid not only to mature economies as Scandinavian countries, but also to experience of underdeveloped countries to which Latvian agriculture is more similar. For example, some common indicators are agricultural labour productivity, land capacity, disproportional land distribution.

Conclusions

- The key agricultural problems worldwide are price volatility in agricultural markets, food insecurity, undernourishment, shortage of land and water resources used in agricultural activities. Latvian agriculture faces all these problems too, including the problem of undernourishment.
- The analysis of growth in European agricultural sector showed that the EU total agricultural production increased in 2010 by 1/4 (24.7%) as compared to 2005, despite the slowdowns in 2006 and 2009. However, in most EU countries the agricultural sectoral growth was accompanied by a progressive reduction in the total working force employed in agriculture during the 2004-2011 period.
- Referring to the analysis of growth in agricultural sector of the EU and its Member States based on two structural growth indicators, i.e. the sectoral growth and labour productivity, it can be stated that in recent years the EU agricultural sector has experienced a real growth.
- However, the analysis of growth in the living standards provided by the agricultural sector across the EU allowed the author to reveal many marking worthy processes in different EU Member States. They prove the fact that agricultural sectors of those countries have different problems in contemporary circumstances.

- The author reckons that today Europe has no economic justification for the Common Agricultural Policy, because the agricultural sector in different EU Member States has different challenges and, hence, different development mechanisms and directions.
- One of the key socioeconomic and environmental problems in Europe is soil erosion as a kind of physical degradation of agricultural lands which leads to a decrease of agricultural productivity and ecosystem degradation. More than half of European utilised agricultural areas are endangered by erosion which is caused mainly by water and only in one-fifth by wind.
- Making an outline of the situation in Latvian agricultural sector in the context of global and European challenges, the author brings to the forefront four Latvian agricultural growth inducers, which were defined basing on an analysis of economic growth theory, i.e. investments, labour force, exports of commodities/services and number of economically active market entities.
- As a result of various historical reasons, system transformations, as well as of the impact of economic crisis and global agricultural development trends, the growth potential of the Latvian agricultural sector is considered to be low. It is determined by a low level of investments in agriculture, low quality of human resources and low economic capacity of farms. Notwithstanding this fact, there are still some positive tendencies, for example exports growth based on inclusion of farms into the value added chain, which might be achieved in co-operation of farms with food processing industrial enterprises within common supply chains or food clusters.

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