ANALYSIS OF THE EVOLUTION AND INFLUENCE OF THE NUMBER OF MEAT ANIMALS IN ROMANIA

ANALIZA EVOLUCIJE I UTICAJA BROJA ŽIVOTINJA ZA MESO U RUMUNIJU

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ABSTRACT

Over the past years, the Romanian rural sector has been facing a number of issues such as a decrease in the number of livestock, the loss of their genetic potential, the destruction of the majority of zootechnical production areas and animal production.

The data obtained and processed in the 1991-2017 period involve the following animals: cattle, pigs, sheep, goats and adults laying poultry. With the exception of goats, all the other categories exhibited a drastic decrease in herds, especially cattle and pigs. The results obtained are a consequence of the unsound management in most of the local, regional and central rural administrative structures, agricultural holdings and agricultural companies. Moreover, the value of food imports, especially of meat products, has increased, especially in the last years of the studied period, and is most likely to continue to increase due to the swine flu in Romania in 2018.

Key words: meat animals, food safety, statistic data, import/export, Romania.

REZIME

Vrednost izdataka za uvezenu hranu u Rumuniju je previsoka, neprihvatljivog učešća za zemlju poljoprivrede, s preko 17% potrošnje hrane i preko 34% izdataka za hranu. Preko 60% uvoza hrane u Rumuniju čine proizvodi koji se mogu nabaviti u zemlji, dok meso i mesni proizvodi u poslednjih nekoliko godina vrede više od 30%. Trenutna realnost rumunskog ruralnog područja obeležena je ozbiljnim ekonomskim i društvenim fenomenima, među najčistijim su ozbiljna dezootehnizacija, odnosno samo smanjenje stoke, gubitak njihovog genetskog potencijala, uništenje većine zootehničkih proizvodnih područja, a proizvodnja životinja u poljoprivrednoj proizvodnji dostigla je učešće oko 35%. Studije i istraživanja koja smo sprovedi za ovaj rad leže u periodu neposredno nakon revolucije u Rumuniji, odnosno od 1991. do 2017. godine (poslednji dostupni podaci). Uzeti i obrađeni podaci odnose se na evoluciju u navedenom periodu goveda (sva goveda, mužjaci i ženke, na različitim starosnim grupama i ekonomskim destinacijama), svinje (sve svinje na gazdinstvu, uključujući svinje u porodilištima, uzgajivači i tova tela, bez obzira na pol, težinske kategorije i ekonomsku destinaciju), ovce (sve vrste ovaca, bez obzira na pol, starost, ekonomsku destinaciju i lokaciju), koze (sve koze bez obzira na pol, starost, ekonomsku destinaciju i lokaciju) i odrasle osobe peradi (ptice starije od 24 nedelje za proizvodnju jaja). Sa izuzetkom koza, sve ostale kategorije su zabeležile drastičan pad u stadima, posebno kod goveda i svinja, pri čemu je poslednja opala za više od 50% u ukupnom broju životinja. Pored toga, došlo je do niskog stepena prerade poljoprivrednih sirovina, odnosno, kao rezultat obuke sa dodatnom vrednošću. Svi predstavljeni kumulirali su se sa pogrešnim upravljanjem u većini lokalnih, regionalnih i centralnih ruralnih administrativnih struktura, poljoprivrednih gazdinstava i poljoprivrednih kompanija, prerađivača MSP-a, kao i sa značajnim nedostacima u upravljanju proizvodnjom hrane. Konačno, automatski su pripisani veliki nedostaci obezbeđivanju uravnotežene ishrane stanovništva (implicitno sigurnost hrane), kao i potreba za sirovinama za nepoljoprivredne aktivnosti i aktivan i profitabilan izvoz poljoprivredno-prehrambenih proizvoda. Takođe, vrednost uvoza hrane, posebno mesnih proizvoda, povećala se, posebno u poslednjim godinama proučavanog perioda, i najverovatnije će nastaviti da raste zbog svinjskog gripa koji je pogodio Rumuniju 2018. godine.

Ključne reči: Životinje za proizvodnju mesa, Bezbednost hrane, Statistički podaci, Uvoz/Izvoz, Rumunija.

INTRODUCTION

Problems connected with food safety including health issues are not isolated or regionally, politically or socially restricted; they may appear anywhere in the world in different forms and severities (Košutić et al., 2013). The knowledge, research, improvement and development of rural areas are vital to a country, regardless of its size and population. The Committee of Agriculture and Rural Development of the Council of Europe estimates that the European rural area accounts for 85 % of the total EU area and affects, directly or indirectly, more than half of Europe's population (Goșa et al., 2017). During the period of Romania's pre-accession to the EU, most experts in agricultural

and rural development were extremely doubtful regarding two critical points: the management skills of the farmers, from project management to farm management, and their financial capacity to support and further handle the public funding they might access (Sălășan, 2017). In the vast majority of countries, with intensive agriculture developed in a balanced manner and focused on top quality products, the share of animal production in the total agricultural production is over 60 %. In 1989 (the year of the Romanian Revolution), the animal production in Romania claimed about 45 % of the total agricultural production, varying significantly from area to area (Oțiman et al, 2015). Over time, this share has seen countless variations, currently being around 38 %, but never reaching 60 % (Figure 1).

Fig. 1. Share of animal and vegetable production in Romania, 1990-2016, %
(Data source The Romanian National Institute of Statistics)

MATERIAL AND METHOD

The data used in the present study were obtained from the site of the Romanian National Institute of Statistics, based on which further calculations, interpretations and comparisons were performed. The data used were on the cattle, swine, sheep and goat herds in Romania in the period 1990-2017. Furthermore, the data on imports and exports of animals and animal products in Romania (1991-2017), as well as on the investments in agriculture in Romania (1999-2017), were collated, analyzed and processed.

RESULTS AND DISCUSSION

Livestock production in commercial companies indicated a dramatic decline, especially in the period 1991-2000. Nearly all pig and poultry production facilities become subject to bankruptcy and judicial liquidation proceedings after the liberalization of input prices and the control of agri-food product prices. The unacceptable delay in privatization of these facilities in most cases has led to their advanced physical degradation, rendering them extremely unattractive for investors.

The number of cattle declined practically continuously from 1990 to 2011, after which it remained relatively constant until the end of the analyzed period (2017). Therefore, in recent years, the number of cattle has been reduced to almost one third of the number in 1990, from 5,380 thousand heads to 2,010 thousand heads in 2017 as seen in Figure 2. The cattle livestock in Romania in the period 2005-2012 recorded a decrease of 29.8 % compared to only a 3.6 % reduction at the EU-27 level (Romania being the last with the most pronounced rate of decreasing) (Otiman et al, 2011) . Concerning the production of cattle meat (carcass weight) in the same period, Romania recorded a decrease of 86.1 %, ranking the last in the EU.

The same tendency of drastic decrease was also found in the case of swine. After the 1990-2001 fall, a period of 5 years (until 2006) marked an increase in swine production numbers, followed by a further decrease to a value below the minimum recorded in 2001 (as seen in Figure 3). In addition, since June 2018), African swine fever has ravaged in Romania, causing losses of tens of millions of euros. The disease continues to expand today, despite the fact that over 360,000 animals have

already been killed. As a result, the imports of pork meat in Romania increased by over 30 % in 2018.

Fig. 2. Bovine livestock from Romania, 1990-2017, thousands
(data from the National Institute of Statistics)

Fig. 3. Swine livestock from Romania, 1990-2017, thousands
(data from the National Institute of Statistics)

Regarding the number of sheep, as discussed above, the sheep number was virtually cut in half during 1990-2001, after which (with the exception of 2010) the number of sheep has increased steadily approximating to 10 million heads at the end of the period under consideration (2017) (Figure 4). After this period, a further increase in the number of sheep is expected, especially as the Ministry of Agriculture and Rural Development launched a campaign (on October 26, 2017) for informing and promoting the consumption of sheep meat called "Choose the sheep!". This Campaign was supported by all sheep breeders in Romania who wanted to make consumers more interested in sheep meat and sheep meat products. The aim was to capitalize on sheep agri-food products, to increase the value of processed products, to attract the labor force in the sheep meat processing sector, but also to preserve the traditions of the culinary products of this species, especially in mountain areas. The campaign was held nationwide for three months and was aimed at encouraging the consumption of meat and sheep meat products throughout the year, not just on Easter holidays. All this happened within the context in which Romania mainly exports live sheep to the Middle East, Libya, the Palestinian territories, Jordan, Lebanon,

Fig. 4. Sheep livestock from Romania, 1990-2017, thousands (data from the National Institute of Statistics)

Fig. 5. Goat livestock from Romania, 1990-2017, thousands (data from the National Institute of Statistics)

Turkey and Italy, while importing sheep meat from Hungary, Spain, Greece and Austria. The same downward trend was recorded in the period 1990-2001 in the case of goats (Figure 5), followed by the increase in the period 2001-2017. However, this is the only case in which the increase in recent years exceeds the starting point of 1990. This increase was mainly due to the fact that goat farms do not need a very large budget for starting and the business of goat production features less labor and cost requirements. A goat farm of approximately 30 heads generates enough income in one year to cover the investments and make a small profit. Moreover, the price of goat milk and cheese is significantly higher than those of cows. With regard to the number of laying hens, the decrease observed in the previous trends ends faster, namely in 1997, followed by an increase until 2004. With the exception of the year 2005 (the year when bird flu was reported in Romania), a decrease in the number of laying hens has been continuous for the past 10 years (Figure 6). This decrease in the number of laying hens caused implicitly a decrease in the number of eggs produced in Romania.

Fig. 6. The number of adult laying hens from Romania, 1990-2017, thousands (data from the National Institute of Statistics)

Fig. 7. Trends in the import and export of food and live animals in Romania, 1991-2018, mil. Euro

Fig. 8. Difference between the import and export of food and live animals in Romania, 1991-2018, mil. Euro

As can be seen in Figures 7 and 8, the imports of food products and animals were always higher than the exports in the period 1991-2018. The smallest differences were recorded for the period 1996-1997 (namely 2014-2015), whereas the greatest differences were recorded in the period 2008-2009 (namely 2018). The largest differences (approximating to 50 %) were recorded during the crisis period in 2008 (financial crisis) and 2018 (swine fever). These differences between the import and export of food and live animals were also complemented by very small investments in this field. In fact, out of the total investments made in Romania, the agricultural sector benefited on average (period 1999-2017) less than 5.5 %, the only year in which it exceeded 11.5 % was 2002 (figure 9).

Fig. 9. Share of agricultural investments in the total investment structure in Romania, 1999-2017 (%)

CONCLUSION

Over the past years, the livestock production in Romania has indicated a sharp downward trend. Poor economic policies relative to animal husbandry have led to the collapse of this sector, particularly pig and poultry production. The causes for the bankruptcy and liquidation of livestock farming complexes are multiple: the unwarranted delay in the privatization of pig and poultry farms, the failure to adapt to market economy requirements, the liberalization of input prices and the maintenance of animal products prices under the control of

governmental organizations, high interest rates (60-120 %) and indebted agricultural companies, and diseases (swine fever and bird flu).

To revitalize the animal sector, the following measures should be taken into consideration:

- Pig and poultry complexes should be privatized according to a particular brand, and thus enter the national and foreign agri-food market (such as the promotion of the Hungarian Mangalitsa pig).

- Agricultural and food production should ensure the national food security and guarantee the food safety of the population by doubling the agricultural yields in the future, as well as the value of vegetable and animal production and the value of agri-food production and processing.

- Food chains should be organized as a whole, including the processing and marketing of agricultural products, promoting animal welfare and risk management in agriculture (programs like the so-called "Choose Sheep!" so far have no particular impact).

- Opportunities for the processing of related products, such as sheep wool, should be created.

In conclusion, the agricultural production (especially the animal production) in Romania is still far from the performance of the agri-food economies of the other Member States (for example in Romania the animal production has a share of 35 % of the total agricultural production compared to the EU average of 55 %), which makes the productivity and efficiency gaps even more pronounced. However, the place occupied by Romania with regard to a number of products of animal and plant origin argues in favor of the significant growth potential of the Romanian agri-food sector.

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