GLOBAL AND NATIONAL THINKING ABOUT THE CATTLE PRODUCTION, DEVELOPMENT IN POLAND

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Cattle production is an important part of practically every country economy. In Poland for example it gives about 20 per cent of agriculture gross output value. As each part of the national economy cattle production development is influenced by many factors: objective and subjective, internal (national) and external (international), they may be influenced by political, economic, social and national reasons.

We professionals like veterinarians, zootechnicians and majority of people engaged in agriculture production, seldom are putting enough attention to those questions expecting that economists will take care of them. It is not a great pity in a peaceful times and in the countries with stabilized economy but it gains importance in the periods of great transformations like those for example which recently are taking place in CEE countries. Here we passed during the last one and half decade through a great economic, political and social convulsions. During transition from planning to free market economy agriculture suffered probably the most.

In this presentation I wish to bring closer to you these problems with reference to the current processes of globalization and regional integration using polish cattle production development issues as an example.

FEW facts about polish agriculture

Poland is relatively large European country with nearly 40 million people and over 300 thousand square kilometers of land . Since 1989 it passes through important political and economic changes from central planning to free market economy.

Entering recently the European Union Poland brings large agriculture production potential only partly exploited and a great market capacity . Since it was not a subject of collectivization like in other CEE countries it is characterized by a great number of small farms.

The average farm in Poland has only 7 hectares so about 30 per cent of the population lives out of agriculture but unemployment in rural areas is high /about 30 per cent/. So the process of land concentration which is unavoidable in Poland may create in the future a great social problems due to the lack of economic prosperity which would allow to create new
working places and new houses in urban areas. The prospects for a rapid rural areas development in other sectors than agriculture are small. With other words agriculture is and will stay for some time very important part of the polish economy and as the source of income for large part of the society.

Tab. 1  Farm and cattle herd structure

<table>
<thead>
<tr>
<th>Farm size in hectares</th>
<th>Per cent of total land</th>
<th>Per cent of cattle on those farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 2</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>2 – 5</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>5 – 10</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>10 – 15</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>15 – 20</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>20 – 50</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Over 50</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Statistical Yearbook of the Republic of Poland 2004

Cattle numbers

During the last 15 years the number of cattle dropped in Poland from 10,7 million to 5,2 million. The reduction was higher than caused by second world war. The reasons are drastic change of policy, sudden liquidation of state farms, reduction of average incomes, unfair competition of subsidized export from the West, intense export of young alive calves to the EU-15 countries, and others.

Diagram 1. Changes in cattle number.

a) projection IERiGZ-PIB
Source: Statistical Yearbook of the Republic of Poland 2004

The great problem however is that the reduction of cattle population continues in Poland by about 2 percent per year. As a result we have now one of the lowest density of cattle in Europe, namely 30 heads per 100 ha of agriculture land when in Germany for example it is 90 and in Holland 200.
Out of 2.2 million calves born annually, 1 million are slaughtered or exported live in age of few weeks. If we add to that the fact that at present are in Poland about 3 million ha of follow land and about 2 million of unemployed in the rural areas / phenomenon unknown 15 years ago / we may see how complicated the situation is. But it is not enough. Our agriculture structure is very dispersed. More than 50 per cent of polish dairy cows are kept on the farms up to 15 ha. With the concentration of milk processing industry and with growing milk quality demands most of these farms will have to drop milk production so the reduction of number of cattle may continue.

**Milk production**

In 1998 polish farmers produced 12.2 million tons of milk but in 2004 11.5 million tons. Number of total dairy cows dropped at that time from 3.4 million to 2.6 million. It shows that reduction of number of cows was partly compensated by increase of milk yield per cow. Indeed when the average milk yield per cow in 1988 was about 3000 kg, so in 2004 it was 4200 kg. However when milk consumption/together with dairy products as milk equivalent/ was in 1986 280 kg per head and year it dropped in 2004 to 180 kg. In this same time the butter consumption dropped from 9 kg to 4.5 kg.

Diagram 2. Milk production and milk yield per cow

![Diagram 2. Milk production and milk yield per cow](image)

Source: Rynek Mleka 2004
The national polish quota allocated by EU for milk production is 8964 thousand tons and will grow up to 9380 thousand tons in 2007/8. If we add to that milk which does not reach the market it expresses more less the present level of production.

**Beef production**

Parallel to cattle number reduction was the decrease of beef production. From 1989 till 2004 the beef production in live weight dropped from 1,25 million tons to 0,59 million tons. What was however practically unchanged in this period of time was the high number of young calves (over half a million) exported for further fattening to Italy and other EU countries. In 2004 the number of live exported calves reached the number of 918 thousand heads. Out of it 793 thousand went to EU – 15.

**Diagram 3. Beef production**

![Diagram 3. Beef production](image)

a) projection IERiGZ-PIB

Source: Rynek Miesa 2005

In the period of transformation the dramatic reduction of beef consumption took place. When 15 years ago average Pole consumed per annum 17 kg of beef so in 2004 only 4,5 kg.

**Cattle quality**

The grate majority of polish cattle are black and white Friesian. The breed was greatly influenced by importation since centuries of seed stock mainly from Holland and Germany.
but recently (semen) also from USA and Canada. During last two decades intensive process of so called holsteinisation is taking place.

The number of cows artificially inseminated is high (about 60 per cent). In spite that national programs of cattle genetic improvement exist the main progress in productivity has been achieved mainly due to imported genetics so in form of live animals as in form of semen. The average production of milk recorded cows in Poland is 6150 kg what shows the good genetic potential.

**International trade**

Poland is a net exporter of milk and beef. In 2004 the net export of dairy products (in milk equivalent) was about 1,4 million tons what is about 13 per cent of total production. The value of last year total net dairy export was 455 million euro.

**Diagram 4. Value of milk and dairy products export and import**

![Diagram showing value of milk and dairy products export and import]

Source : Rynek Mleka 2004

49 per cent of that export went to EU-15, 30 per cent to developing countries and 9 per cent to CIS countries. The increase of export in 2004 by about 60 per cent was mainly due to good prices on the world market, lifting of EU-15 trade barriers, local currency depreciation, improvement of quality of row milk and control of processing by veterinary services. About 90 per cent of purchased milk by dairy industry is now of extra quality / EU standards /.

Poland is also the net exporter of beef. In 2004 it exported / net / about 80 thousand tons /in meat equivalent / but almost half of it was exported in the form of live young calves for further fattening in EU-15 countries.
Table 2. Polish beef export and import value in million EUR /

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004 a)</th>
<th>2005 b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export total</td>
<td>172.0</td>
<td>166.5</td>
<td>280.0</td>
<td>336.7</td>
</tr>
<tr>
<td>Beef and beef products</td>
<td>83.9</td>
<td>71.7</td>
<td>133.4</td>
<td>186.7</td>
</tr>
<tr>
<td>Live animals</td>
<td>88.1</td>
<td>94.8</td>
<td>146.6</td>
<td>150.0</td>
</tr>
<tr>
<td>Import total</td>
<td>1.4</td>
<td>2.1</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Beef and beef products</td>
<td>1.4</td>
<td>2.1</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Live animals</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Balance</td>
<td>+170.6</td>
<td>+164.4</td>
<td>+276.0</td>
<td>+330.7</td>
</tr>
</tbody>
</table>

a) preliminary b) projection IERiGZ - PIB

Source: Rynek Miesa 2005

The destinations of beef meat were mainly EU-15 and Russia.

What strategy for the future?

There is no doubt that the situation in cattle production sector in Poland should be a matter of great concern not only for the local cattle breeders and producers but also for national government and even Brussels authorities. The reactions however of mentioned above groups and suggested by them remedies could be different. Indeed they would depend very much on their point of view – national, regional or global.

National approach

Considering the question – what about the polish cattle production sector in the future – the answer from the national point of view is rather simple. Taking into the account natural production resources on one hand and market potential on the other the only answer is that we should rebuilt the cattle population number at least to the level of 1989 it is up to about 10 – 12 million heads and the level of milk and beef production up to that time as well. We have enough land, labor and consumers to aim at such target.

The answer is however not so simple if we ask what kind of cattle we should have in the future? Before 1989 we had about 11 million cattle including 5,5 million dairy cows and the population was almost entirely Frisian type. The average milk production per cow and year was 3100 kg. what gives 16 million tons of milk produced per annum. Our European Union milk quota is now 8964 th. tons but the average milk production per cow is 4200 kg and still grows rapidly.

Since milk quota system works well within the European regional integration system and since it will be kept at least until 2015, we have to accept it in our national planning.
Most probably milk quotas will grow slowly for example for Poland in 2007 / 2008 it will be 9380 th. tons. Adding to that the milk which will not reach a market / about 20 per cent produced / our milk production goal in the perspective of about 10 years should be about 12 billion kg. it is more less the present level.

Expecting the average milk production per cow at the level of about 6 th. kg. it means that our dairy cows population should be 2 million, what would mean the total cattle population of about 5 million what is more less of the present level. So from the milk production point of view the situation looks not bad, farmers have production targets, stable market and reasonable prices are assured at least for so long as CAP is respected and maintained.

The situation looks however completely different if we consider beef production sector. During the last 15 years the production of beef dropped by half and internal annual consumption per caput went down to one third and the beef export dropped. If we add to that the fact that EU-15 became recently net importer of beef and that this import grows when the production has the tendency to go down it is clear that there are good reasons to aim at increasing beef production in Poland.

**Considering regional (EU) integration process**

Since over one year Poland is a member of European Union and our agriculture is a subject of the Common Agriculture Policy and it means a lot. Means a lot in general in the positive sense. However as always there are some buts. Maybe not so much in the milk production sector as in beef production. In the dairy sector we have been given milk production quota, our farmers are meeting European quality standards and they expect stable market and reasonable prices.

But the situation is different and more complicated in the beef sector.

As it is well known beef production was a most subsidized sector of EU-15 agriculture. However last CAP reform introduced the policy of decoupling (what means that subsidies should not stimulate increase of production) and lamp sum premiums per farm based on the previous subsidies level. This however has not been accepted by all “old” member countries and exceptions have been approved at least up to 2007. Among countries which still pay slaughter and nursing cows premiums are such important for us countries (due to trade relations) as for example Italy, Spain and France. This way CAP lost its uniformity even for the “old“ EU countries. In addition it hampers equal competition opportunities rights of member countries.
Let us take as an example polish export of young calves to Italy. How can we plan to fatten them in Poland without subsidies when if they are finished in Italy they will be paid premiums?

As it is known decoupling policy has been introduced in Poland from the beginning of our membership since our farmers receive subsidies according to the number of hectares (only 25 per cent of the standard level at the first year). It should be stated however that decoupling means something different for the countries of EU-15 where agriculture was subsidized since decades and where the modern highly productive agriculture already exists and something different for such countries like Poland where recently due to the restruturisation for example cattle population and beef production has been reduced by more than a half.

Let us illustrate this problem by comparing beef production in Poland and Italy.

<table>
<thead>
<tr>
<th>Table 3. Beef production in Poland and Italy</th>
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<tr>
<td></td>
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<tr>
<td>Cattle population mln</td>
</tr>
<tr>
<td>Arable land mln ha</td>
</tr>
<tr>
<td>Beef production th. tons (carcass weight)</td>
</tr>
<tr>
<td>Beef per head of cattle/year</td>
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</tbody>
</table>

Source: Own calculations.

With similar size of land and slightly higher cattle population Italy produces three and half times as much beef as Poland. It should be understandable that in such situation Poland should not agree with the new EU policy of universal blocking of increasing agriculture production. As in other cases the exceptions from generally accepted policy should be possible and the polish beef production sector seems to be the best example.

**Facing globalisation processes**

There is now a lot of discussion in the world about the impact globalization may have on the economic, social and political problems in different countries. In general the opinion prevails that globalization process is taking place in the interest of rich and strong and that it is at least risky if not detrimental for poor and weak.

Seldom however these discussions touch the question what impact globalization may have on the sector of agriculture. Generally it is expected however that globalization bringing intensification and concentration of production is causing depopulation of rural areas and the end of family farms (Tomczak 2005). As it comes to the question of total free market idea let us to quote the unanimous opinion of leading economists “non of European agriculture is able to compete on the world free market and accept world prices” (Szymanski 2001)
Do we like it or not globalization is taking place however and for our further considerations it is not important if it is an objective process or dictated by certain forces. Since globalization means no borders for flow of capital, commodities, labour and services its supporters attack all state market interventions. The instruments of regional integration like for example CAP of EU are strongly criticized by supporters of trade liberalization. It is true that free market for agriculture products practically does not exist in to days world, but there is a lot of pressure from WTO, USA and the Third World for more liberalization of international turnover of agriculture products. The target is CAP which is also attacked from inside of EU. Reminding these general issues let me to bring them into the consideration of the future plans of cattle development in Poland.

If globalization and trade liberalization is the future economic and political environment of European farmers the main problem which they will have to face is competition ability where quality of products and costs of their production will be the main factors.

With quality of products should be no problem but with the costs of production would be a great one since it is well known that the costs of production of majority of agriculture products are much lower in USA and Southern Hemisphere than in Europe. It looks that without market intervention and subsidies European farmers would have no chances for example in milk and beef production. It is well demonstrated by data in table 4.

Table 4. Beef production costs in different countries (Euro per 100 kg of carcass weight)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cost (Euro)</th>
</tr>
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<tbody>
<tr>
<td>EU-15</td>
<td>400</td>
</tr>
<tr>
<td>Cent. East. Europe</td>
<td>300</td>
</tr>
<tr>
<td>Brazil</td>
<td>200</td>
</tr>
<tr>
<td>Argentina</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Eurostat 2004 and own calculations

Figures in table 4 are striking even if the lowest production costs in Argentina were due to local currency appreciation.

So the hope of European farmers is the continuation of the main principals of The Common Agriculture Policy of EU. Last developments show that European farmers and the whole European society should fight for it if they do want to enjoy food security and alive rural areas.

What in such situation should be our advise to the young European farmers. The best what we can do in my opinion is to repeat old saying “think globally but act locally”
References

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