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# **Transformation and its Impact on Structural Changes in Polish Agriculture**

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**„What was expected, what we observed,  
the lessons learned.”**

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## **ABSTRACT**

The following article analyses the structural changes of the Polish agriculture, which have been influenced by the transformation processes. These processes have been caused and influenced by phenomena of a various scope and impact, but from the point of view of functioning of agricultural farming a few major factors may be outlined. Amongst the mentioned factors one can find: price decontrol and liberalisation, which have influenced the processes of price and agricultural products realisation, international trade realisation, which have 'forced' the increase of business competitiveness in the rural areas, liquidation of state owned and monopolized farming institutions, the lack of which has given those areas the push towards individualized entrepreneurship and finally the processes of the privatization of the social agricultural sector, which have caused the flux of land ownership but has also become the cause of potential problems for post-State owned agricultural areas.

**Key words:** transformation, structural changes (transformations), agriculture, Poland

## **1 INTRODUCTION**

The following article analyses the structural changes of the Polish agriculture, which have been influenced by the transformation processes. Its aim is to pinpoint the most substantial transformation aspects, which have had the biggest impact on those changes.

The research method applied, was the written assessment method, based on base method and the deduction method. Mainly the statistical data was the subject of research, the source of which were The National Census (NSP, Narodowe Spisy Powszechnie) and Common Agricultural Census (PSR, Powszechnie Spisy Rolne). The NSP and PSR results consist of a very broad scope of information regarding the current situation of the Polish agriculture sector, therefore the analysis described concerns years 1988-2002. The described period is the correct time for doing so as it allows for showing all the changes that immediately stem from transformations and at the same time does not encompass the influences of integration processes with the European Union.

The first part of the article presents a general idea of transformation and all the phenomena which constitute the above. The privatization process has been paid utmost attention, the process which 'has freed' vast land surfaces, manufacturing properties and manpower as a result of liquidation of state owned and monopolized farming institutions (PGR, Państwowe Gospodarstwo Rolne). What needs further underlining is the fact even until today, the manpower management is a serious social and economical issue in Poland.

The next part of the article addresses the structural changes in the agricultural sector from a theoretical point of view and attempts to analyse them. Due to implementation of broad scope of transformations it was possible to address changes that occurred outside the farming sector and that refer to the manufacturing property and the manpower structure. Farming equipment was also included as well as consumption goods, which mirror the quality of life. An analysis of the main new trends in farming production was also conveyed.

The third part concentrates on the search for the cause-result relationships thanks to which it has been possible to specify the scope of influence of the transformation processes on the Polish agricultural sector. The conveyed research clearly states that the majority of the mentioned changes occurred under the influence of accommodation processes, to which most of the households based on the farming income had to adapt, and which appeared as a result of introduction of the new trade mechanisms in 1989.

## 2 THE ESSENCE OF TRANSFORMATION AND ITS MAIN OBJECTIVES

From the scientific point of view the essence of transformation is determined by its theoretical approach, which is the basis for further speculation<sup>1</sup>. In the light of economical systems theories, „the changes of the two basic characteristics are the essence of transformation; as those characteristics we should perceive the ownership of property fluctuations and regulatory activities” (BAŁTOWSKI, MISZEWSKI 2006, page 15). The new institutionalized economy perceives the essence of transformation in a much broader perspective, according to which the above term should be understood as „the changes of the economical order, which is the change of regulations and change of the formal and informal institutions that represent the given order” (HOCKUBA 2001, page 14). Disregardful of the theoretical discourse, the transformation processes in Poland, or even in the countries of the Central and Eastern Europe, meant a switch from the centrally steered economy to the free market economy.

There are two main subperiods of the Polish transformation processes initiated in 1989:

- 1) The First, in the years of 1989 - 1990,
- 2) The Second, In the years of 1991-1993.

In the years of 1989-1990 the so-called Balcerowicz Policy was introduced, the main aim of which was liberalization, stabilization and structural reforms. Liberalization was mainly connected to the liquidation of state control over the fixture of prices, cancellation of subsidies and grants for state owned companies. This process has been a milestone step towards the reinstatement of adequate price relations, decrease of deformations in the production structuring and allocation of resources aiming at the pickup of operation of the real market factors. Since the 1<sup>st</sup> January 1990 international trade operations have also been realised. The introduction of a solid, united exchange rate for Polish currency along with the introduction of internal interchangeability was also brought to life.

The stabilization policy encompassed a series of actions aiming at; the control of income amounts (especially wages); retaining of a solid exchange rate for the currency at the same time loosening the state control over international trade and balancing of the country's budget, subjected to which were restrictional monetary policies. The income control was mainly realized through the progressive taxation of excessive wages<sup>2</sup>. The credit and monetary policies were centralised on the limitation of the demand and consumption, increase in savings rates, limitation of investment rates and most of all on productivity rationalization. The budget policy was based on the constant limitation of expenditure.

One of the key factors of the transformation process was privatization of the state owned enterprises, the increase of their independence, creation of conditions for larger internal competitiveness and abolishment of monopolies and creation of a capital alongside with a labor market. As a consequence of legal boundaries created in the middle of 1990, the mechanisms for equal functioning of state owned and private entities were engaged.

Despite the generally difficult macro-economical and social situation (inflation , unemployment), the general reform movement was continued in the second period. A much larger accent has been positioned on the issue of privatization. The privatization programme encompassed commercializing of the stated owned enterprises; conversion into the national treasury partnerships and introducing them into the market regime, mass privatization,

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<sup>1</sup> As M. Bałtowski and M. Miszewski state: „There is no single, most important ‚essence’ of transformation. There must be a cognizant or nescient, specified epistemic stance behind every answer” (BAŁTOWSKI, MISZEWSKI 2006, page 15).

<sup>2</sup> It is widely believed that the conveyed policies had a strong anti-inflation influence, since the wage increase in the amount of 3%, resulted in the 200% increase of taxation levels.

privatization of large state owned enterprises through the sale of shares and privatization of middle-sized state owned enterprises by liquidation and leasehold. All of the above was accompanied by demonopolizing activities and development of new institutions.

In the next years, although there was a change of the political option at the power, the basic principles of monetary and trade restrictions were upheld, liberalization of trade and prices, battling the inflation and further process in creating the new market institutions were continued. All of the above were aimed to serve the three main functions, which were economic growth, ensuring its stabilization and strengthening its competitiveness.

The complex process of transformation also affected the agricultural sector. The changes that occurred were of both direct and indirect nature. The direct changes were as a result of liquidation and privatization of the state owned agricultural system and the latter were achieved through the change of conditions for functioning of farming households. The introduction of the free market regulations put most of PGRs in a very difficult economical situation. Due to production restrictions, high loan costs and lack of undertaking of accommodating steps, the first occurrences of liquidation of the state owned farming companies, occurred as early as in 1991 already (SPYCHALSKI 1999, s. 51). The 'freed' land resources were overtaken by the National Treasury Farming Ownership Agency, set up in 1992, whose role was to administer the National Treasury Property<sup>3</sup>. What aroused to become a substantial problem was the lack of the alternative for laid off PGRs' employees.

### **3 THE STRUCTURAL CHANGES OF THE POLISH AGRICULTURAL SECTOR**

#### **2.1 The essence of structural changes**

The starting point in the process of explanation of the structural changes is the understanding of the term 'structure'. Traditionally, with regard to farming, the term structure is mainly understood as the agricultural structure and concerns the allocation and farm size. Nowadays, the mentioned term should be understood in a much broader sense, which means that it also encompasses the productivity and economical factors of the mentioned farms<sup>4</sup>. The economical factor is dependent on the availability of; quality and quantity of manpower, the infrastructure and manufacturing equipment, production trends, achieved effectiveness factors (especially productivity), sales figures, type of connection with the market. All of the factors mentioned above characterize the joint ability for all farm units to adopt proper accumulation and development (SZEMBERG 1998, page 867).

Application of such broad approach, in the process of defining the transformation, towards the subject allows taking into account not only the allocation of structure changes but in fact almost all agricultural aspects involved. Therefore, under the term of structural changes, we should understand the whole picture of the changes of variables involved in the described industry branch. The above constitute of variables defining the cost and income structure, production structure, and the agricultural spatial planning. There can be three types of structural changes enumerated in this context: the sector aspect, regional aspect and the aspect concerning the internal agriculture issues (KOWALCZYK 1993, page 350-351). The sector aspect concerns the desired (from the macro-economical aims point of view) allocation of agriculture within the structure of the state's economy and refers to, for example: the role of the agricultural sector in the creation of the level of the National Gross Product (PKB, Produkt Krajowy Brutto), the total breakdown of the manpower employment, investment

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<sup>3</sup> Zasoby ziemi zgromadzone w PGR-ach wynosiły 3,5 mln ha, a zasoby siły roboczej – 460 tys. osób.

<sup>4</sup> Takie podejście jest możliwe w warunkach nowoczesnego rolnictwa, w którym występuje substytucja czynników produkcji.

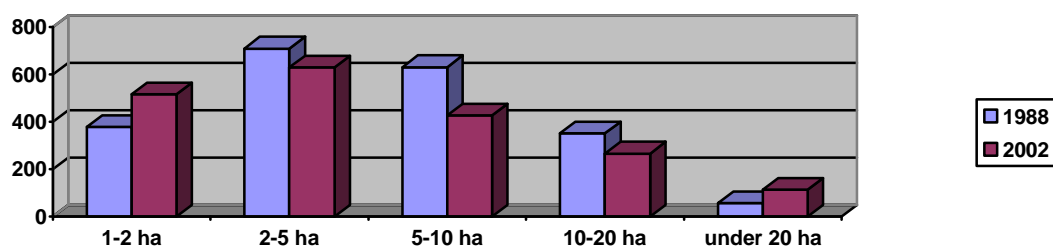
share etc. The regional aspect takes the spatial variation of agricultural development levels into consideration and is connected to the main drive towards the liquidation of the large development disproportions within a given region. Finally, the aspect of internal agriculture issues is connected to the changes within the structure and to the connections between all subsystems within the agricultural industry. The inter-agricultural aspect is mainly taken into consideration in this article.

### 3.2 The spatial allocation changes in the agricultural areas

The main characteristic of the spatial allocation changes is the process of gradual drop in the land area used for agricultural purposes nationwide. The total land area used for agricultural purposes amounted to 18,7 million ha in 1989, to be at the level of 17,9 million ha in 2002. The structural use of the mentioned areas has considerably changed within the mentioned period. The total privately owned area used for agricultural purposes amounted to 76,3% of the total area used in 1989. The remaining 23,7% (4,4 million ha) was used by the so-called social agricultural sector, 80% of which was in the hands of the state owned farming enterprises, 15,8% belonged to farming co-operatives and the remaining area was in the hands of farming circles or was state owned but not affiliated with any farming enterprises. In 2002, 93,4% of all agricultural areas was used by the private sector (individual farming households constituted 92% of the total farming area), and the remaining part (6,6%) – in the hands of the public sector.

The number of individual farming households (those in possession of more than 1 ha) slightly decreased in the mentioned time period. In 1988 the total number was 2 128 000, but in 2002 the 1 952 000. There also has been a slight change in the number of the average acreage. In 2002 it was 8,44 ha. There were clearer changes that appeared in the spatial allocation of agricultural areas (Figure 1). What took place was a clear polarization of the farming household structure, which is best described by the fact that there was an increase in the number of farming households possessing between 1 and 2 hectares, increase in farming households possessing above 20 hectares, while a decrease of farming households possessing between 2-20 hectares was noted.

**Figure 1: The structure of individual farming households possessing above 1 hectare in 1988 and in 2002 (in thousands).**



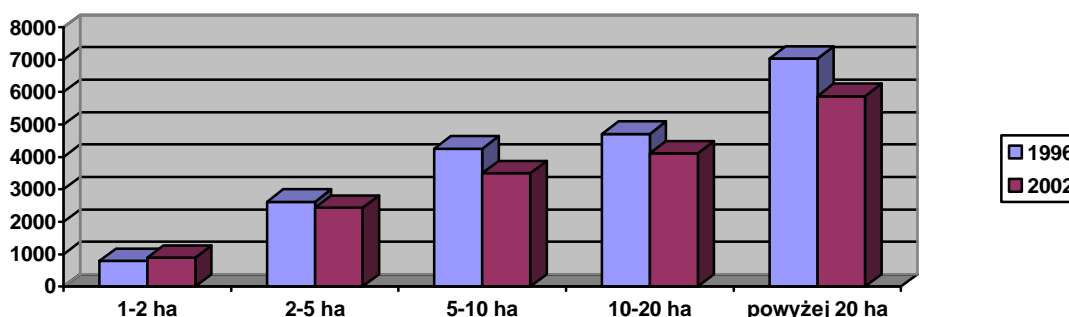
Source: own case study based on the PSR results 1989, GUS, Warsaw 1989 and Report accompanying the PSR results, PSR 2002, GUS, Warsaw 2003.

The increase in the number of individual farming households possessing above 20 hectares was much larger than in the 20-200 ha. group. The number of individual farming households possessing more than 200 hectares has been constantly decreasing.

The analyzed spatial changes of the agricultural allocation also result in land ownership changes in individual groups (Figure 2). Apart from the group of individual farming

households possessing 1-2 ha, all of the remaining ownership groups experienced a decrease in the acreage of the land used for agricultural purposes.

**Figure 2: The acreage of the individual farming households possessing more than 1 hectare in accordance with the acreage ownership groups in year of 1996<sup>5</sup> and 2002 (numbers applied are in thousands).**



Source: own case study based on the Report to PSR results 2002, GUS, Warsaw 2002

What needs outlining is the fact that the analysed changes are a subject to substantial variation nationwide. The prevalence of the larger farming households is found in the North and East part of the country (regions formerly dominated by the state owned enterprises), and the fragmented spatial allocation of the agricultural areas (an average farming household of a 3 hectare acreage) are typical to the southern part of Poland. As the consequence of the above, one can consider, the diversity of problems that have to be addressed by the agricultural households from these regions.

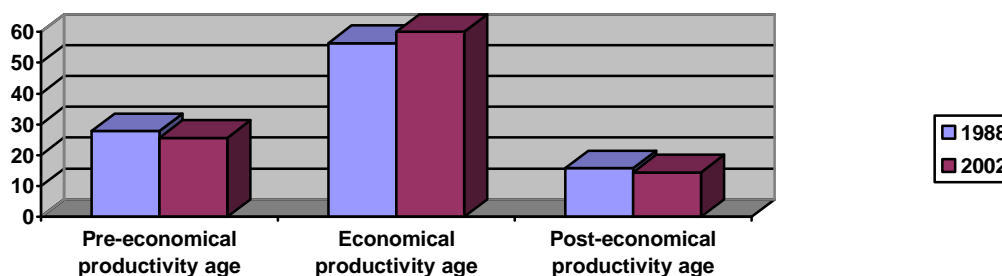
### 3.3 Manpower transformations

The starting point for manpower assessment within the agricultural system is defining of the human category resource connected with individual farming households. Inside this category there are individuals who constitute an integral part of individual farming households<sup>6</sup>. In 1988 the number of people in individual farming households amounted to 9632,9 thousand (25,4% of the population of Poland), and in 2002 – 10474,5 thousand (respectively 27,4%). What needs outlining is the fact that in 1996 that number was even larger and amounted to 11559,2 thousand. The above fact means that within he observed the total number of people with immediate connection to farming households has been on the increase. The described increase was influenced by the processes influencing the shrinkage of the labour market in cities caused by liquidation of many enterprises and the necessity to ‘return to the roots’ as well as transformation of the population boom manpower into the age of economical productivity. The above is a proof of the changing of a demographical structure of the analyzed population group (Figure 3). The number of people in their economical productivity age increased (by 3,6%), accompanied by a drop of the same factor in the remaining age groups, such as age prior to economical productivity (by 2,2%) and post economical productivity age (1,4%).

<sup>5</sup> Because of the lack of data from the year 1988, the 1996 SPR results were applied.

<sup>6</sup> The statistical data also encompasses population connected to individual farming households possessing more than 1 hectare, with a real implementation of acreage for farming purposes between 0,1 -1 hectares and owners of domestic animals not possessing any acreage used for agricultural purposes or with the described acreage below 0,1 of a hectare.

**Figure 3: Population structure in individual farming households in 1988 and 2002 (in %).**



Source: own case study based on the Population connected to individual farming households in the years of 1970-1988, GUS, Warsaw 1992 and Population connected to individual farming households, part I – Population, GUS, Warsaw 2003.

Although the number of people connected to individual farming households has increased the number of people working only in the individual farming household has noted a substantial decrease. The described levels amounted to 2918,9 thousands of people in 2002, where the corresponding category for the year 1988 was 4603,3 thousand. There has been an almost twice decrease in size of population working mainly in an individual farming household (from 2862,6 thousand in 1988 to 1288,9 thousand). The above means that there was a drastic change in the source of income of population having connection with individual farming households. Towards the end of the 90s it was mainly working in the agriculture (for more than 77% of the described population). For only 38% of people in 2002 farming was the only or the predominant source of income. Despite the formal connection with an individual farming household for a decreasing number of people farming is the only or the predominant source of income.

### 3.4 Structural changes of capital resources (solid assets)

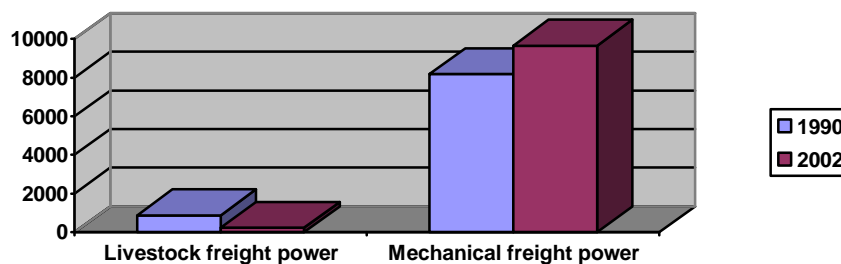
Capital resources in agriculture are mainly connected to solid assets, which are manufacturing infrastructure, buildings and agricultural equipment. The characteristic feature of the researched time period is the systematical increase in the fact of equipping individual farming households with inventory buildings as well as machinery.

Tractors are considered an element of the solid assets of the individual farming households. Within the researched time scope the number of tractors increased from 1026 thousand units in 1987 to 1365 thousand units in 2002. Towards the end of the 90s almost half of the individual farming households did not possess tractors, the prevalence of which were small households (1-2 hectares). Although the number of households possessing tractors increased, the percentage levels of households not in possession of a tractor did not become larger. The above is the result of the increase of sawed off farming households.

The consequence of the enlargement in the number of tractors is the increase in the freight power resource level (Figure 4), which is a joint resource level for mechanical freight resource level and a parallel decrease in the livestock freight resource level.

**Figure 4: Freight power resource levels in 1990 and in 2002 r. (in thousands units of freight units).**





Source: own case study based on the Tractors, machines and other transport means in individual farming households 2002, GUS, Warsaw 2003.

A much more spectacular increase of equipping of the individual farming households with units other than tractors was reported. The above mainly concerns the increase in the numbers of grain harvesters, potato and beetroot harvesters, planting units, agricultural sprinklers etc. (Table 1). On the other hand the number of self-propelled silo-harvesters has decreased twice in size.

**Table 1: Machinery units and equipment applied in agriculture in 1987 and in 2002 (in units).**

Specification	1987	2002	2002/1987 (in %)
Grain harvesters	30354	118060	388,9
Potato harvesters	28037	80721	287,9
Beetroot harvesters	9997	31971	319,8
Self-propelled silo-harvesters	25799	11975	46,4
Fertilizer Disseminaters	316679	518043	163,6
Manure scatterers	311346	494244	158,7
Tractor-propelled mowers	266614	509648	191,2
Load grabbers	77523	200404	258,5
Potarto diggers	201628	400098	198,4
Potarto planting units	124931	402141	321,9
Collecting trailers	41093	93653	227,9
Agricultural sprinklers (tractor propelled, gardening and field units)	101398	507370	500,3

Source: own case study based on the Tractors, machines and other transport means in individual farming households 1996, GUS, Warsaw 1997 and Tractors, machines and other transport means in individual farming households 2002, GUS, Warsaw 2003.

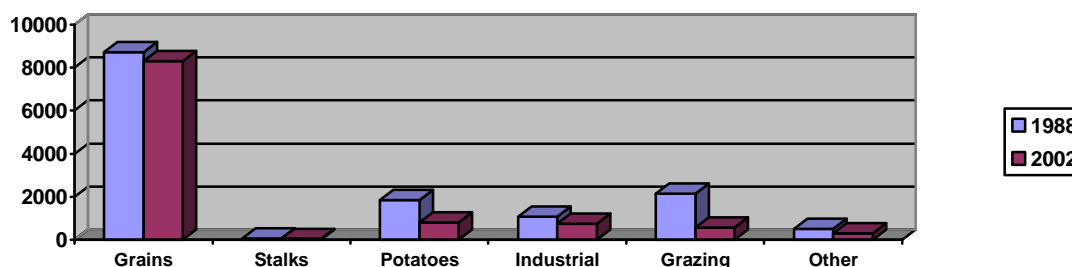
In 2002 more than 97% of farming machinery was used in individual farming households possessing more than 1 hectare. Even though the number of farming equipment considerably

increased, the number of individual farming households in possession of grain harvesters was at the level of 5,9%, whereas in the group of individual farming households in possession of 50-100 hectares the possession of grain harvesters was the highest and was at the level of 65,6% (similarly to 1996). Potato harvesters were owned by 80,2 thousand of individual farming households in possession of more than 1 hectare, which constituted the total of 4,1% of the total for all of the individual farming households. The biggest percentage (27,3%) of grain harvesters was owned by the individual farming households in possession of 30-50 hectares of actively used farmland. Beetroot harvesters were found in 31,4 thousand of individual farming households in possession of more than 1 hectare of actively use farmland, which constituted 1,6% of the total for the individual farming households – the biggest number of beetroot harvesters was in possession of individual farming households in possession of 50-100 hectares of actively used farmland (18,0%).

### 3.5 The structural changes in the production trends of the individual farming households of various farming acreage

In the years of 1988-2002 the farming production increased at the annual rate of 0,2%, but its structure has undergone substantial changes. Above all, within plant production, the total acreage, noted a substantial decrease (from 14333,6 thousand of hectares in 1988 to 10764,3 thousands of hectares in 2002). The above was a consequence of the decrease in the number of individual farming households conveying plant production. The structure of the quoted production has also considerably changed (Figure 5).

**Figure 5: The structure of the acreage used for various plant production in 1988 and in 2002 r. (in thousands of hectares).**

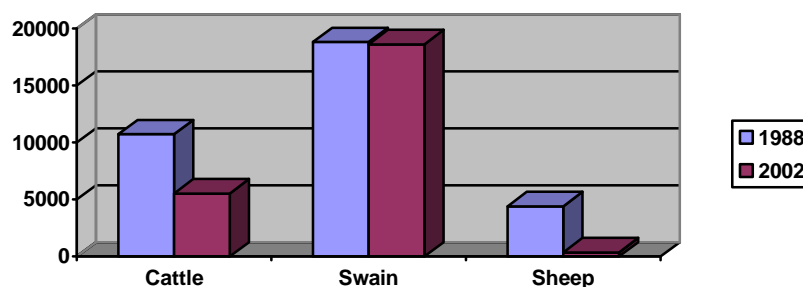


Source: own case study based on The land usage, planting acreage and domestic animals, GUS, Warsaw 1989 and Farming Production, GUS, Warszawa 2003.

The acreage of potatoes and grazing plants has undergone largest changes. The reason of the above is the fact that the number of domestic animals considerably decreased. The change of the structure of the industrial plant production (sugar beet, rape-seed and rape-seed variables) was the consequence of accommodation of individual farming households to the available demand from the processing industry.

In the researched time period the production of the farm animals has also been subject to substantial changes. The number of cattle and sheep constitute the predominant elements of the mentioned group (Figure 6). It was also the number of the swine units that has been retained at unchanged levels (18 million units).

**Figure 6: Farm animals in 1988 and in 2002 (in thousands of units).**



Source: own case study based on The land usage, planting acreage and domestic animals, GUS, Warsaw 1989 and Farming Production, GUS, Warszawa 2003.

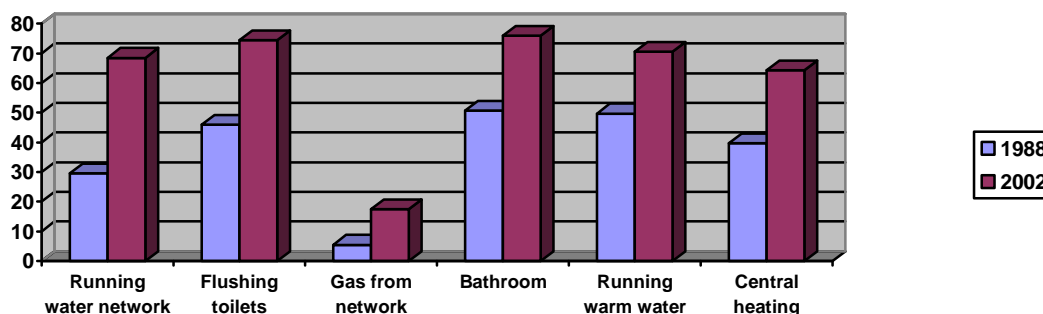
As the consequence of the change in the number of the farm animals are the partition changes. In 2002 for every 100 hectares there were 32,7 cattle units, whereas in 1988 r. – 57,3 units. Substantially larger decrease was recorded in sheep populations. The partition of the above has gone down in the described period from 23,5 units for every 100 hectares of actively used farm land to 2,0 units. However for every 100 hectares of actively used farmland there are still 110,6 swine units.

What is worth highlighting is the fact that there are slow changes in the production of animals. Towards the end of 1990s the majority of farm animal units was partitioned between the middle-sized and small individual farming households. Currently every 10<sup>th</sup> middle-sized farming household is in possession of more than 10 farm animal units and every third is in possession of 20 swine units.

### 3.6 Changes in the structure of living conditions

Accompanied by the general changes that occurred within the agricultural sector in the described period, there were also structural changes of the living and material conditions of the rural and farming populations. The drive towards meeting of those needs, caused by the civilization development, has also given a push towards equipping of the rural homes with the basic household appliances. Amongst the above there are such infrastructure as running water and electricity, flushing toilets, network provided gas, bathroom, hot running water or central heating (Figure 7).

**Figure 7: Rural household appliance and infrastructure equipment in 1988 and in 2002 (in % to the household units).**



Source: own case study based on Households 2002, GUS, Warsaw 2003.

Although not all households have been equipped with the listed appliances and infrastructure but in comparison with 1988 a large improvement has been recorded.

#### **4 SYSTEM TRANSFORMATION INFLUENCE UPON THE TRANSFORMATION OF THE AGRICULTURAL SECTOR**

Amongst all the socialist countries Polish agricultural structure had had the most peasant structure. Based on the notion of land property it has survived through many centralizing attempts. This specific lack of changeability of the Polish farming industry was undoubtedly the consequence of the macro-economical survival features. Therefore, has and in what way the transformation of the Polish farming industry, influenced the structural changes of the Polish agriculture system?

An unambiguous answer can only concern the changes, which have occurred in the sector of the state owned agriculture. As a result of the economical weakness and privatization, state owned enterprises ceased to exist. The problem that was left over, is the often brought up problem of the post-PGR villages, usually with high structural unemployment rates and considerable progressive poverty of the population. In the place of PGR occurred, large individual farming households.

The changes ongoing in the individual farming household sector are not so obvious. The conveyed analysis shows that even though the general number of farming households has decreased, the stipulated number concerns only individual farming households above the acreage of 1 hectare. Taking all types of farming households into consideration, there are about 3 million of such, almost a steady number of farming households in the last few decades. Nevertheless, a polarization of individual farming households can be clearly observed on the example of rising numbers of very small and large individual farming households, while the number of middle-sized, manufacturing a limited produce amount of produce individual households is on the decrease. The above facts constitute a conclusion that a number of middle-sized individual farming households is trying to enlarge the capacity of its entrepreneurship, transforming into product based enterprises. There is also a different group of the mentioned households that by partially getting rid of their land is entering social farming enterprises.

This social function of farming households has gained a special meaning as the liberalization, deregulation and privatization processes were introduced at the beginning of the 1990s. Liquidation of many enterprises, employment rationalization have led to mass lay offs and increase in unemployment numbers. Alongside with the increase of the latter, the agricultural system experienced a steady manpower flow of those who had no chances in finding employment in cities. The first group which followed this path was mainly the low working class. The process described above has caused the increase of the population connected to farming and at the same time provided a significant stimuli for appearance of farming unemployment. In connection with the above farming has been attributed the role of the buffer zone whose role was to reduce the social costs of the ongoing transformation processes.

The social character of the Polish farming is expressed through the fact that farming is the source of income for gradually decreasing number of people, who have any sort of connection to the agriculture. The described group's of people income stems from either non wage sources or working outside of the farming household.

It was also the liberalization of prices but above all the liberalization of the international trade that forced a growing competition between farming households nationwide and with international competitors as well. Although a substantial lobbying from peasant parties has contributed to the securing of the Polish market, problems connected to the sale of the many products in offer, strengthened by the liquidation of the state owned recipients of the produce, have forced a decrease in prices; changes in the farming production trends and the rise in the quality of the manufactured products. Substituting labor force (especially in case of large

farms) has increased the rapidity of the process aiming at equipping farms with solid and liquid assets. The amount of machinery and farming production infrastructure owned has also increased.

The gap of institutions surrounding the farming sector, the drive towards ensuring appropriate consumption levels and creation of better living conditions has forced parts of the population in connection with farming to search for alternative source of income. The search is mainly aimed at entrepreneurship and creation of the multi-functional development of the rural areas. The described activity will be a deciding factor in the further structural changes of the Polish farming in the years to come.

## 5 CONCLUSION

Assessing the changes in the Polish farming in the 1990's W. Orłowski claims that „in the given period, we did not record any substantial increase in the process of rural areas restructuring nor any change in the structure of the farming industry nor a permanent increase of income” (ORŁOWSKI 2001, page 20). A similar point of view is adopted by S. Małecki-Tepicht who forms a thesis that „deregulation processes in the years of 1990-2002 in a minor way have created the transformation of the Polish farming sector” (MAŁECKI-TEPICHT 2005, page 5). On the other hand M. Bałtowski and M. Miszewski state that „the final result of the changes is positive” and that „to a large extent Polish agriculture has become a competitive economy branch...” (BAŁTOWSKI, MISZEWSKI 2006, page 326).

Even though the assessment of the influence of the transformation processes on the farming sector there are different opinions that are voiced, it is possible to say that the transformation process of the Polish economy have influenced the structural changes of the Polish farming sector in an ambiguous way. First of all: it has led towards the liquidation of the social sector within the farming sector but on the other hand, it has forced accommodation processes in individual farming households. As the result of the above, three farm types have evolved: manufacturing a lot of produce, prosperity and macro-economical dependent and; low-produce manufacturing, whose income is being supplemented by income from different sources and finally social farming systems – mainly based on social benefits.

Although the changes of the agricultural structure and manpower are not distinctive, it is valid to say that there is a large capital shift in the direction of the farming sector and that the living conditions of the farming based populations are improving. An example of the elastic applications is the production structure, which meets the demands of the market.

Nevertheless, the most important result of the transformation processes is the fact that as the result of the structural changes of the farming sector, Polish farmers turned out to be very well prepared for becoming competitive to the European Union farming industry. What is important not to forget that application of improper policies may negate the so far accomplishments.

## REFERENCES

- BAŁTOWSKI, M., MISZEWSKI, M. (2006): Economic transformation in Poland, Warsaw, Wydawnictwo Naukowe PWN (PWN Educational Publishing House).
- HOCKUBA, Z. (2001): New institutionalized economy – will it dominate our opinions on the upcoming century? Speech presented on the VIII Congress of Polish Economists, Warsaw, January 2001.
- KOWALCZYK, S. (1993): Premises for the structural changes in farming, *the Economist*, Vol. 3.

MAŁECKI-TEPICHT, S. (2005): Polish farming sector in the years of 1950-2002 – heritage and perspectives, Materials and Study, book no. 196, Warsaw, Narodowy Bank Polski, The National Bank of Poland.

ORŁOWSKI, W. (2001): Macro economical conditions for the development of the Polish farming in the long run, (Country and Farming) *Wież i Rolnictwo*, Vol. 2.

SPYCHALSKI, G. (1999): Structural changes of the Polish state owned farming in the period of system transformation (1990-1998), Szczecin, Wydawnictwo Akademii Rolniczej.

SZEMBERG, A. (1998): The agricultural structure and structural policies: Woś A. (ed.), The agro business Encyclopedia (Encyklopedia agrobiznesu), Warszawa, Fundacja Innowacja.