

## RURAL HOUSEHOLDS IN UKRAINE: CURRENT STATE AND TENDENCIES

*Serhiy Moroz*<sup>1</sup>

### Summary

*Households are primary means of survival for rural people of Ukraine under conditions of limited employment and income-earning opportunities in the countryside. In this paper, main tendencies of development of rural households are analyzed. Particular attention is given to socio-demographic characteristics, agricultural production activities, and changes in incomes and expenditures of the household sector. Further possible scenarios of development of households are considered.*

**Key words:** rural households, rural regions, Ukraine.

**JEL:** R20

### Introduction

Today, Ukrainian households have much more significant impact on the life of rural people compared to Soviet times. They managed not only to survive in market conditions, but also to carry out important activities connected with agricultural production and provision of employment and income opportunities for rural residents. As stated by Prokopa et al. (2010), the household sector has a substantial potential which can be used for balanced, sustainable development of the agro-industrial sector and rural areas. This issue is important not only for Ukraine, but for other countries with transition economy. The significant share of rural households of CEE countries is subsistence oriented. For example, in Romania for poor households, the value of subsistence production accounts for more than 50% of per capita real incomes (Davidova et al., 2009).

The objectives of the paper are the following:

- to investigate socio-demographic tendencies in the rural household sector of Ukraine;
- to analyze agricultural activity of rural households;
- to examine changes in household incomes and expenditures.

This paper is based on data of State Statistics Service of Ukraine, including publications, such as Agriculture of Ukraine, Expenditures and Resources of

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<sup>1</sup> Serhiy Moroz, Ph.D., Associate Professor, Department of Logistics and Production Management, Sumy National Agrarian University, 160 Kirov St., 40021 Sumy, Ukraine, Phone: +380 542 627 816, E-mail: [smorozmail@gmail.com](mailto:smorozmail@gmail.com)

Households of Ukraine, Statistical Yearbook of Ukraine, as well as information from sampling surveys of socio-economic state of households in Ukraine. The descriptive analysis is the main method of the paper.

### Socio-demographic development of rural households

In Ukraine, a household is defined as a group of persons who live together at one dwelling or its part, provide themselves with everything necessary for their life, operate their home economy together, completely or partially combine and spend money resources. These persons can be relatives by blood or in law, or not to have either of these relations, or to have both kinds of them. A household can consist of one person (Verkhovna Rada of Ukraine, 2000).

Characterizing development of households, it is important to investigate their socio-demographic tendencies. Small households consisting of one and two persons predominated in rural regions (Table 1).

**Table 1.** Distribution of rural households (by size)

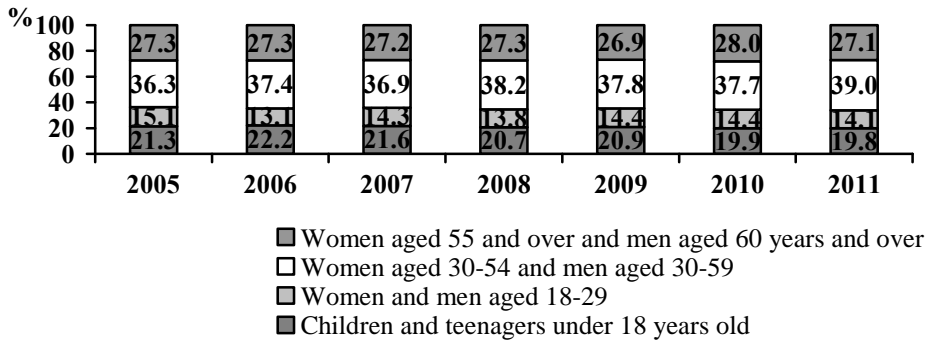
Element	2000	2005	2007	2008	2009	2010	2011	2011 (+,-) to 2000
Rural households consisting of (%):								
one person	23.2	23.6	24.5	24.2	25.3	24.7	25.8	+2.6
two persons	26.2	27.8	26.9	26.6	25.6	27.9	26.8	+0.6
three persons	16.3	17.6	19.2	19.5	19.7	19.1	18.9	+2.6
four persons	17.9	18.6	16.3	17.2	14.8	14.6	14.8	-3.1
five and more persons	16.4	12.4	13.1	12.5	14.6	13.7	13.7	-2.7
average rural household size (persons)	2.89	2.75	2.74	2.74	2.74	2.71	2.70	-0.19
share of rural households with children aged under 18 (in %)	41.4	37.9	37.8	38.1	37.2	36.1	36.7	-4.7
The share of households without children (in %)	58.6	62.1	62.2	61.9	62.8	63.9	63.3	+4.7

*Source:* Own composition based on data of State Statistics Committee of Ukraine (2007b, 2008b, 2009d, 2010d); State Statistics Service of Ukraine (2011c, 2012d).

In 2011, their shares were 25.8% and 26.8% respectively. The decrease occurred in households with four and five and more members: from 17.9% and 16.4% in 2000 to 14.8% and 13.7% in 2011. As a result, the average rural household size reduced from 2.89 to 2.70 persons. Besides, the portion of rural households with children aged below 18 years reduced from 41.4% in 2000 to 36.7% in 2011.

The structure of rural households, by age of members is presented in Figure 1. In 2005-2011, the percentage of young age groups declined substantially: children and teenagers under 18 years old – from 21.3% to 19.8% and women and men aged 18-29 – from 15.1% to 14.1%. At the same time, the increase of the share of old age groups took place. The reduction of the average size of households was accompanied by deterioration of their age characteristics, including the ratio between young and old age groups.

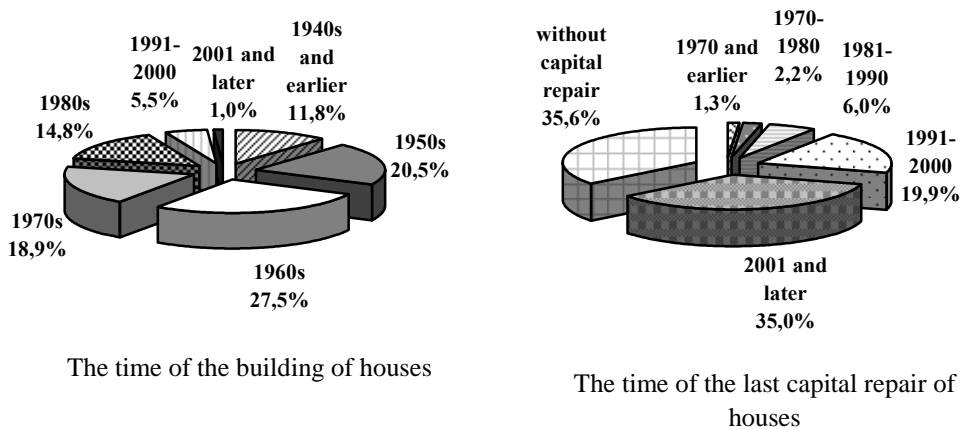
**Figure 1.** The structure of rural households, by age of members (in %)



Source: Own composition based on data of State Statistics Committee of Ukraine (2006, 2007a, 2008a, 2009c, 2010c); State Statistics Service of Ukraine (2011b).

Distribution of rural households by the time of the building and the last capital repair of houses is given in Figure 2. In 2011, the majority of houses were built during the 1960s (27.5%), 1950s (20.5%), and 1970s (18.9%). The share of houses built after 2001 was only 1.0%. From our point of view, this tendency is linked with the fact that rural dwellers did not have funds for such construction. The capital repair of houses took place mostly in 2001 and later (35.0%) and in 1991-2000 (19.9%). So, because of the lack of opportunities to build new houses, the majority of rural people were able to afford only capital repairs. In addition, the significant part of rural households had the living area below sanitary norms (13.65 sq. m per person). For example, in 2011, their portion was 33.6%, including 6.9% and 5.4% of households with the residential area less than 7.5 sq. m and 7.5 sq. m - 9.0 sq. m correspondingly.

**Figure 2.** Distribution of rural households, by the time of the building and the last capital repair of houses in 2011 (in %)



Source: Own composition based on data of State Statistics Service of Ukraine (2012c).

In 2005-2011, the provision of rural households with almost all types of amenities improved to some extent (Table 2). The most substantial growth was observed for the centralized gas supply (by 16.7%) and running water (by 14.4%). The slight decrease occurred only on central heating (by 0.4%).

In our opinion, this tendency was connected with the increase of the share of rural households with the individual heating system (from 37.6% in 2005 to 51.4% in 2011). At the same time, in 2011, rural settlements continued to lag behind urban settlements regarding the availability of household amenities, namely: the centralized gas supply – by 30.3%, running water – by 56.9%, sewer system – by 57.9%, and bath or shower – by 58.3% (the only exception was the individual heating system).

**Table 2.** The provision of households with certain types of amenities (%)

Element	Rural settlements		Urban settlements		Rural settlements (+,-) to urban settlements	
	2005	2011	2005	2011	2005	2011
Central heating	1.4	1.0	63.6	59.6	-62.2	-58.6
The centralized gas supply	37.6	54.3	79.6	84.6	-42.0	-30.3
The individual heating system	37.6	51.4	23.8	30.9	+13.8	+20.5
Running water	20.0	34.4	84.2	91.3	-64.2	-56.9
Hot water supply	1.0	5.7	44.1	44.4	-43.1	-38.7
Sewer system	18.8	32.4	83.2	90.3	-64.4	-57.9
Bath or shower	14.1	27.7	77.0	86.0	-62.9	-58.3

*Source:* Own composition based on data of State Statistics Committee of Ukraine (2006); State Statistics Service of Ukraine (2011b).

We guess that the above-mentioned unfavorable situation occurred due to insufficient attention which was paid to social conditions in rural areas during market transformations. It is necessary to understand that these conditions have a strong impact on rural demographic characteristics. Existing legislation requires that at least 0.5% of the gross domestic product should be directed to development of rural social infrastructure. In practice, funds were not allocated to rural regions because of the lack of budgetary resources. As a result, rural infrastructure deteriorated considerably, and the construction of new infrastructure objects declined drastically. From our point of view, existing socio-demographic problems can be solved on the basis of target measures, especially in the frame of rural development programs.

### Agricultural activities of households

The role of households in agricultural production rose substantially. Between 1990 and 2011, their portion in gross agricultural output went up from 29.6% to 48.2% (State Statistics Service of Ukraine, 2012a). In 2011, households had a high share in production of labor-intensive agricultural products, including: potatoes - 96.9%, vegetables - 84.3%, fruits and berries - 84.2%, and milk - 79.7% (Table 3).

**Table 3.** Share of households in production of agricultural products

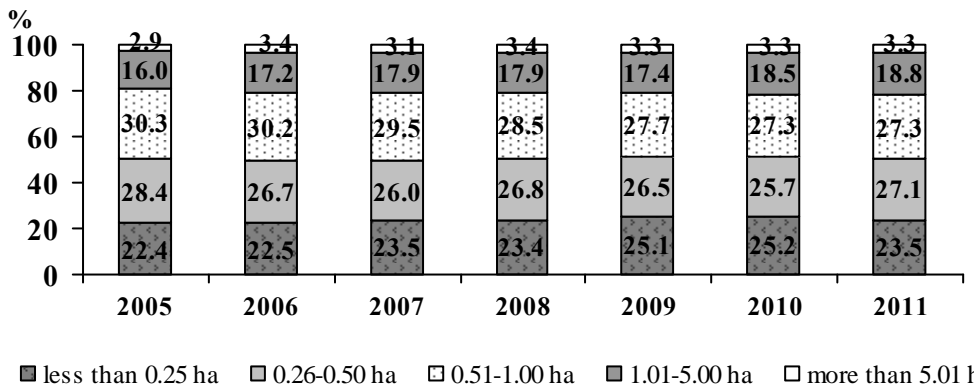
Element	1990		2000		2011		2011 as % of 1990
	in 000 t	%	in 000 t	%	in 000 t	%	
Grain and leguminous crops	1445.2	2.8	4494.8	18.4	12527.5	22.1	8.7 times
Sugar beet (factory)	2.8	0.01	1604.7	12.2	1595.1	8.5	569.7 times
Sunflower seeds	61.6	2.4	431.7	12.5	1381.7	15.9	22.4 times
Potatoes	11938.8	71.4	19561.4	98.6	23495.9	96.9	196.8
Vegetables	1794.3	26.9	4835.0	83.1	8292.4	84.3	4.6 times
Fruits and berries	1554.6	53.6	1188.5	81.8	1596.5	84.2	102.7
Meat (in slaughter weight)	1258.8	28.9	1224.7	73.7	928.5	43.3	73.8
Milk	5874.2	24.0	8989.2	71.0	8840.1	79.7	150.5
Eggs, mln. pieces	6160.7	37.8	5831.3	66.2	6951.6	37.2	112.8

Source: Own composition based on data of State Statistics Service of Ukraine (2012a).

In this period, the most significant increase in the production volume took place for the following agricultural crops: sugar beet (factory) - 569.7 times, sunflower seeds - 22.4 times, grain and leguminous crops - 8.7 times, and vegetables - 4.6 times. Compared with agricultural crops, the output of the majority of animal products grew to a much smaller extent: milk - by 50.5%, eggs - by 12.8%. Furthermore, the volume of meat production (in slaughter weight) decreased by 26.2%.

Reformation of agricultural enterprises led to the substantial increase of the land area which is privately owned by rural residents. The area of household plots rose from 2.5 mln. ha in 1990 to 5.0 mln. ha in 2011. Accordingly, its share in the total area of agricultural lands went up from 6.0% to 12.0%. Between 2005 and 2011, the percentage of households with land slightly fell from 98.8% in 98.2%. Distribution of rural households with land is presented in Figure 3.

**Figure 3.** Distribution of rural households with land, by number (in %)



Source: Own composition based on data of State Statistics Committee of Ukraine (2010a); State Statistics Service of Ukraine (2012a).

In 2011, the highest shares had households with the following land areas: 0.51-1.00 ha (27.3%), 0.26-0.50 ha (27.1%), and less than 0.25 ha (23.5%). In aggregate, the portion of

households, which had the land area up to 1.00 ha, was 77.9%. The share of agricultural households with the land area more than 5.01 ha was only 3.3%. During 2005-2011, the most substantial drop occurred in the portion of households with 0.51-1.00 ha of the land area (by 3.0%), while the largest growth took place in the share of households with the land area of 1.01-5.00 ha (by 2.8%). As a result, the average land area of a rural household increased from 1.08 to 1.21 ha.

The vast majority of land parcels of households were leased out. In 2011, their part was 71.3%. In our opinion, there are two reasons for this. The first reason is the unfavourable age structure of the rural population. It is particularly related to the reduction of the portion of young people aged 18-29 and the growth of the share of old age groups (see Figure 1). The second reason is the insufficient provision of households by machinery and equipment that limits their possibilities to carry out production activities (this issue will be considered later in this paper). In 2011, 13.9% of households used land plots only to meet their own needs in agricultural products. Only 13.8% of rural households were partially oriented to the sale of farm products.

Regarding the usage of arable land, in 2011 the largest share was occupied by grain and leguminous crops (43.7%), potatoes, vegetables and cucurbitaceae (17.9%), fodder and other crops (16.6%), and sunflower (11.2%). Thus, rural households were primarily oriented towards to cultivation of agricultural crops which, if necessary, could be sold profitably at the market or used for feeding of their own livestock and poultry.

The role of animal husbandry in the rural household sector reduced to some extent. The share of households with livestock, poultry, and bees decreased from 84.4% in 2005 to 77.9% in 2011 (State Statistics Committee of Ukraine, 2006; State Statistics Service of Ukraine, 2011b). In this period, per 10 rural household, the number of cattle declined from 7.0 to 5.4 heads (including cows - from 5.0 to 3.7 heads). At the same time, the number of pigs and poultry increased from 6.2 to 6.6 heads and from 132 to 134 heads accordingly (State Statistics Service of Ukraine, 2012a). In 2011, the highest share had households which did not keep cows (71.1%) and pigs (66.1%) (Table 4).

**Table 4.** Distribution of rural households, by number of selected types of livestock (in %)

Element	2009			2011		
	Cattle		Pigs	Cattle		Pigs
	Total	incl. cows		Total	incl. cows	
Households which do not keep respective types of livestock	68.0	69.6	70.8	69.3	71.1	66.1
Households which keep the following number of respective types of livestock:						
1 head	15.5	22.9	12.5	15.0	21.7	13.0
2 heads	10.8	6.2	12.4	10.5	5.9	14.8
3 heads	3.2	1.0	2.1	2.8	0.9	3.1
4 heads and more	2.5	0.3	2.2	2.4	0.4	3.0

*Source:* Own composition based on data of State Statistics Committee of Ukraine (2009b, 2010b); State Statistics Service of Ukraine (2011d).

A significant portion of rural households owned one cow (21.7%) and one or two pigs (13.0% and 14.8% respectively). However, the percentage of households that had a relatively large number of animals and were clearly focused on the sale of their products at the market was quite small. The portion of households with two and more cows and three and more pigs was 7.2% and 6.1% correspondingly.

### Factors which have an impact on development of agricultural production in the rural household sector

The above-mentioned trends confirm that only a small part of households is aimed at selling their products at the market. There are several specific factors which lead to such a limited production model. One of these factors is availability of machinery and equipment in households (Table 5). In 2005-2011, the portion of households with machinery and equipment increased from 11.9% to 14.6%. However, in absolute terms, it still remained a low rate. In 2011, the highest level of provision of the rural household sector was observed for ploughs (39.4%) and harrows (35.6%). On the other hand, the share of households with combines and trucks was the lowest: 1.7% and 2.9% correspondingly. Moreover, the majority of machinery in the household sector is outdated (Krysanov, Udova, 2012).

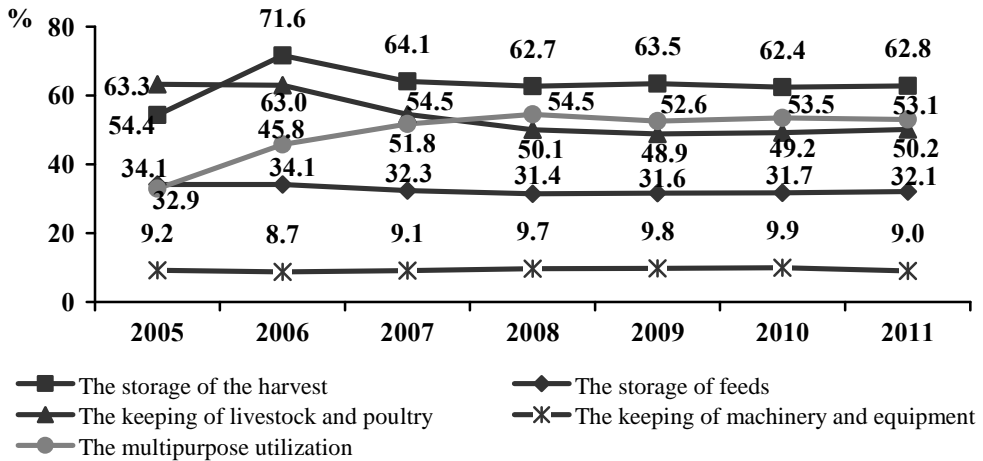
**Table 5.** Availability of Machinery and Equipment in Rural Households (in %)

Element	2005	2006	2007	2008	2009	2010	2011	2011 (+,-) to 2005
Households which possess machinery and equipment	11.9/ 100.0	12.2/ 100.0	12.3/ 100.0	12.5/ 100.0	13.6/ 100.0	13.0/ 100.0	14.6/ 100.0	+2.7
including:								
plough	51.6	47.9	47.0	46.8	42.6	41.3	39.4	-12.2
sowing-machine	8.8	11.1	11.4	10.3	10.0	11.0	11.9	+3.1
harrow	48.0	44.4	43.9	44.6	40.4	37.3	35.6	-12.4
cultivator	14.2	12.7	14.0	14.4	11.4	12.9	13.5	-0.7
tractor	19.5	17.9	18.0	19.6	17.0	16.0	16.5	-3.0
combine	1.5	1.9	1.8	1.7	1.8	1.8	1.7	+0.2
separator	33.1	38.2	25.3	22.0	22.5	20.5	22.9	-10.2
peeling mill	16.4	21.1	20.5	18.3	19.6	19.1	23.4	+7.0
truck	5.8	4.4	4.8	4.0	3.9	3.3	2.9	-2.9

*Source:* Own composition based on data of State Statistics Committee of Ukraine (2010a); State Statistics Service of Ukraine (2012a).

The provision of rural households with farm buildings improved to some extent. The portion of households which did not have them decreased from 4.4% in 2005 to 0.8% in 2011. Similar to machinery and equipment, the situation differed significantly from one type of buildings to another (Figure 4). In 2011, the highest level of provision was observed for buildings for storage of the harvest (62.8%), the multipurpose utilization (53.1%), and the keeping of livestock and poultry (50.2%). Though, just 9.0% of households had buildings for the keeping of machinery and equipment.

**Figure 4.** Share of rural households owned farm buildings (in %)



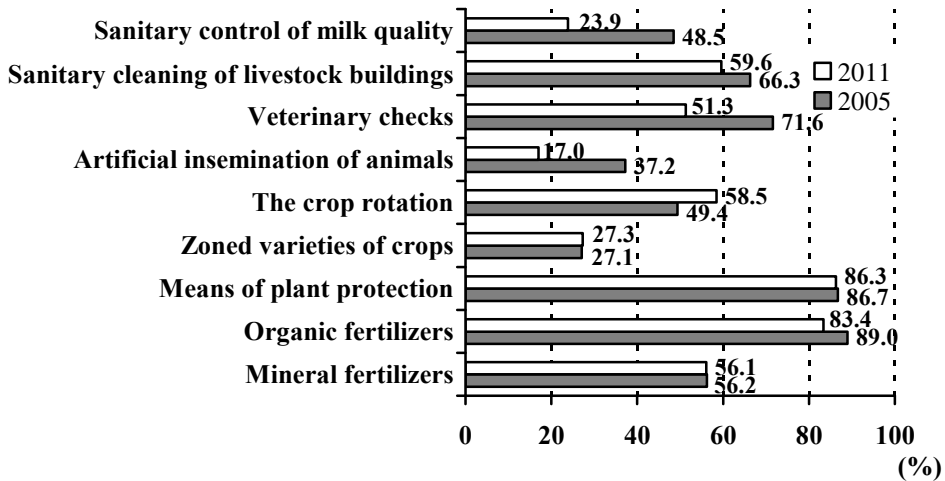
Source: Own composition based on data of State Statistics Committee of Ukraine (2010a); State Statistics Service of Ukraine (2012a).

The use of the majority of measures for effective agricultural production in the household sector fell between 2005 and 2011 (Figure 5). This reduction was primarily related to animal production. The largest decline was seen for sanitary control of milk quality (by 24.6%), veterinary checks (by 20.3%), and artificial insemination of animals (by 20.2%). In crop production, there was only a slight decrease on the usage of such measures (with the exception of the crop rotation and zoned varieties of crops). Its level for organic fertilizers, means of plant protection and mineral fertilizers contracted by 5.6%, 0.4% and 0.1% correspondingly.

The majority of households were still based on manual labor for land cultivation. For instance, in 2011, their share was 89.3% (Figure 6). Moreover, the percentage of rural household used only the manual labor increased from 9.8% in 2009 to 10.9% in 2011. The positive fact was that the proportion of households relied on tractors for crop production grew from 66.9% in 2005 to 72.7% in 2011.



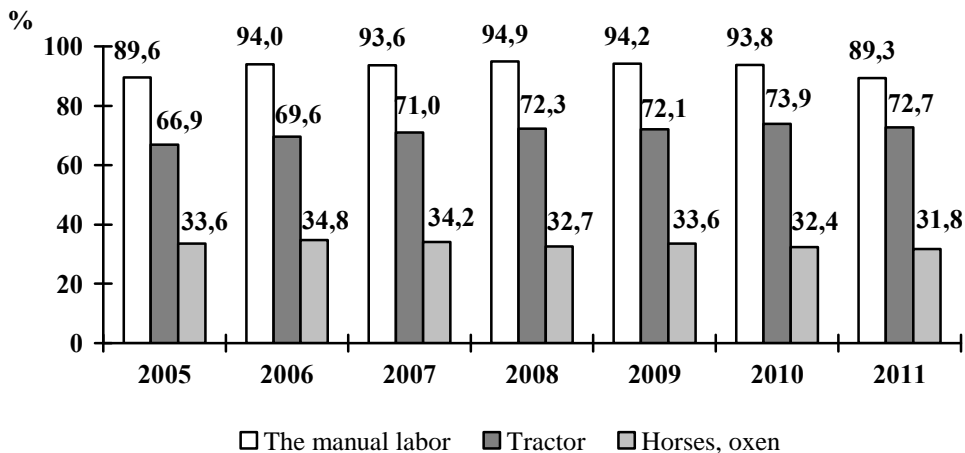
**Figure 5.** Share of rural households using measures for effective agricultural production (in %)



Source: Own composition based on data of State Statistics Service of Ukraine (2012a).

Though, only in a small share of rural families performed all technological operations by tractors. In 2011, this indicator accounted for 8.5% (or by 4.2% more than in 2009). Besides, the role of horses and oxen for land cultivation remained essential for the household sector, while the portion of households which used these animals fell from 33.6% in 2005 to 31.8% in 2011.

**Figure 6.** The share of rural households using means of land cultivation (in %)



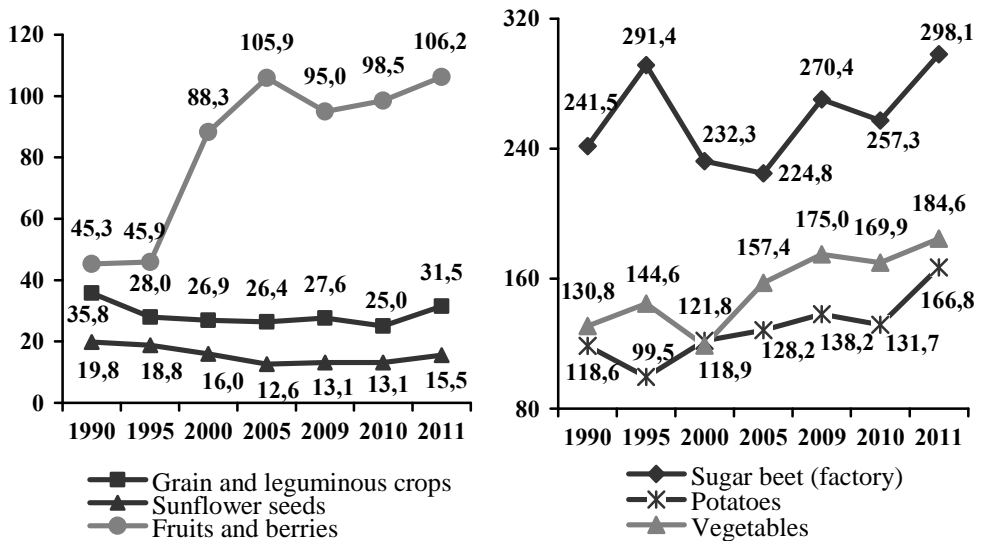
Source: Own composition based on data of State Statistics Committee of Ukraine (2010a); State Statistics Service of Ukraine (2012a).

To determine the rate of intensity of the farming system in the household sector, information about yields of main agricultural crops was used (Figure 7). Until 2000-2005,

the decrease of the yield level has been observed for most crops. Later, it has grown again. According to the type of the yield change, three groups could be identified:

- 1) agricultural crops for which yields, despite their further growth, did not return to the 1990 rate (grain and leguminous crops, sunflower seeds);
- 2) crops for which yield figures exceeded the levels in 1990 (vegetables, potatoes, and sugar beet);
- 3) fruit crops for which the yield level increased significantly (more than 2.3 times) in 1990-2011.

**Figure 7.** Yield of main agricultural crops in rural households (centners per hectare of the harvested area)



Source: Own composition based on data of State Statistics Service of Ukraine (2012b)

The appearance of these groups is a consequence of the existing approach to agricultural production in the household sector. We have already mentioned that, to a significant extent, farm operations in households were done manually. The yield growth was observed for those crops that were the most labour-intensive due to peculiarities of production technologies. More accurate conclusions can be drawn by analyzing the ratio of crop yields between rural households and agricultural enterprises (Table 6). Two periods could be determined concerning the change of this indicator for all crops (with the exception of fruits and berries).

**Table 6.** The ratio between rural households and agricultural enterprises with regard to yield of main agricultural crops (in %)

Element	1990	1995	2000	2005	2009	2010	2011	2011 (+,-) to 1990
Grain and leguminous crops	102.0	116.7	147.0	101.9	90.8	90.6	80.8	-21.2
Sugar beet (factory)	87.6	143.5	135.8	88.0	84.4	91.4	80.4	-7.2
Sunflower seeds	126.1	133.3	135.6	98.4	83.4	85.1	81.6	-44.5
Potatoes	105.3	180.6	111.6	86.7	69.4	77.0	77.0	-28.3
Vegetables	83.3	174.4	134.7	101.9	68.3	82.1	65.8	-17.5
Fruits and berries	113.3	429.0	810.1	661.9	358.5	257.9	259.0	+145.7

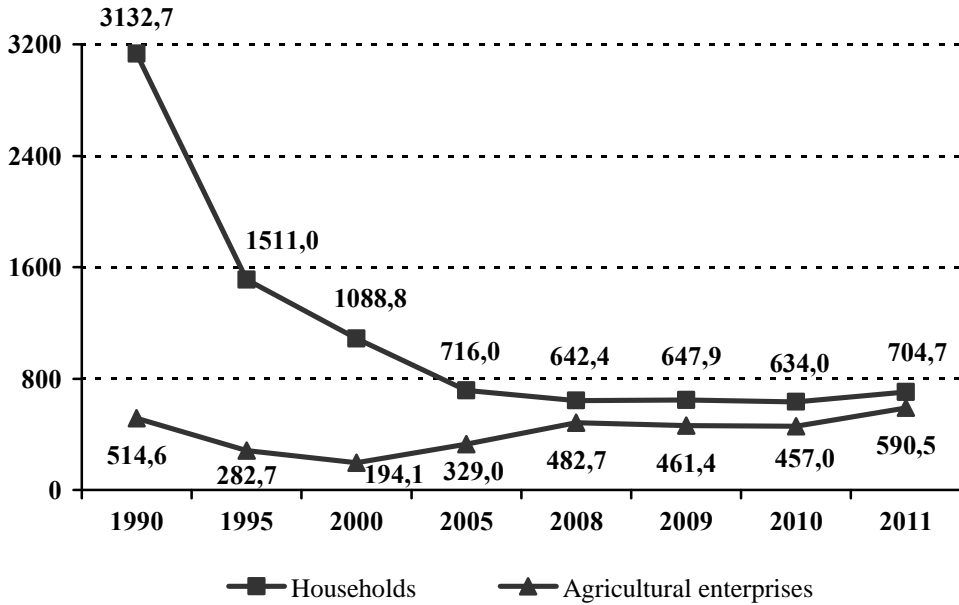
*Source:* Own composition based on data of State Statistics Service of Ukraine (2012b).

During the first period, from 1990 to 2000 (for grain and leguminous crops and vegetables until 2005), the yield levels in rural households were higher in comparison with agricultural enterprises. In 1995, the above-mentioned ratio for potatoes and vegetables was equal to 180.6% and 174.4%. In the second period, after 2000-2005, the situation has been changed significantly. Rural households increasingly began to lag behind agricultural farms in terms of crop yields. As a result, in 2011, the yield ratio was the following: vegetables – 65.8%, potatoes – 77.0%, and sugar beet (factory) – 80.4%. A specific trend was observed for fruits and berries on which the yield in households constantly exceeded its level in agricultural enterprises in the period shown. In 2000, such ratio amounted to 810.1%. However, even this indicator had a downward tendency after 2000.

Given the limitedness of data presented in Ukrainian household surveys, the comparative efficiency of the household sector can be defined using the parameter of productive land use (Melnyk, 2009). Based on this approach, we calculated the value of gross agricultural output (in 2010 comparable prices) per 100 hectares of agricultural lands for both households and farm enterprises (Figure 8).

In 1990, the corresponding indicators for households and agricultural enterprises were 3132.7 thousand hryvnias and 514.6 thousand hryvnias (UAH), while in 2011 they were equal to 704.7 thousand UAH and 590.5 thousand UAH. So, the proportion between households and farm enterprises regarding the parameter of productive land use fell from 6.1 times in 1990 to just 1.2 times in 2011. This means that the production efficiency of the household sector declined substantially.

**Figure 8.** Gross agricultural output (in 2010 comparable prices) per 100 hectares of agricultural lands, (in 000 hryvnias)

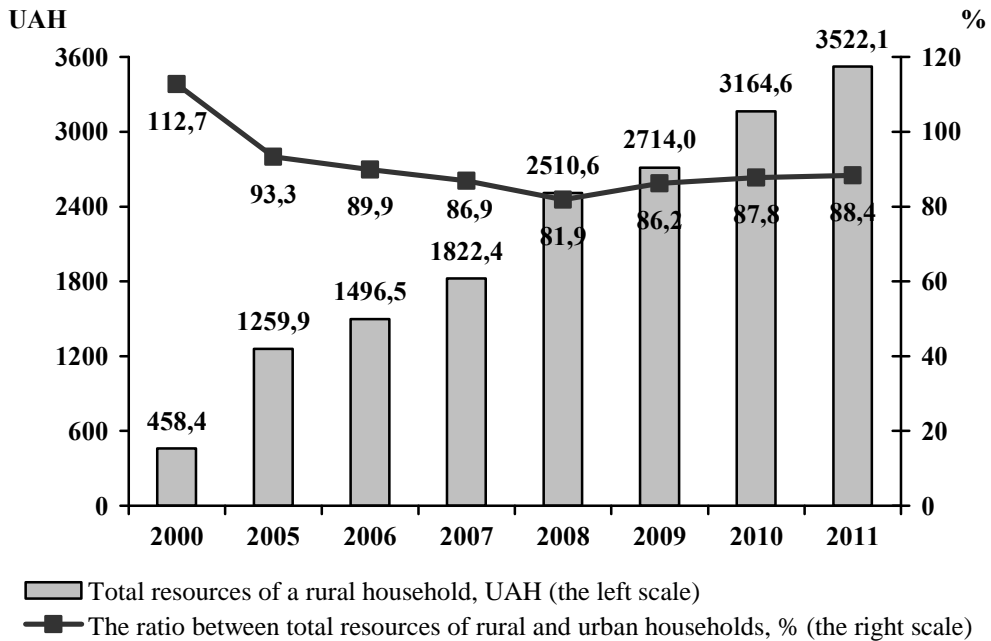


Source: Own composition based on data of State Statistics Service of Ukraine (2012a).

In 1990-2000, the mentioned indicator was much higher in households than in farm enterprises due to internal household reserves mostly related to the utilization of manual labour. Later, the low technological base had an increasing negative impact on the production efficiency of the household sector. Thus, the usage of high-cost model of farming, based on a significant share of manual labour, did not produce desired results for the sector. On the contrary, it led to the worsening of production and economic characteristics of households.

### Incomes and expenditures of rural households

The level of total monthly resources of a rural household increased from 458.4 UAH to 3522.1 UAH (or by 7.7 times) between 2000 and 2011 (Figure 9). However, this quantitative growth did not allow rural households to have sufficient income. In 2010, the percentage of households which had average per capita monthly expenses below the living wage was 20.3% (State Statistics Service of Ukraine, 2011c). Besides, the ratio between rural and urban households concerning total resources went down to a significant extent: from 112.7% in 2000 to 88.4% in 2011.

**Figure 9.** Total resources of a rural household (per month)

Source: Own composition based on data of State Statistics Committee of Ukraine (2007b, 2008b, 2009d, 2010d); State Statistics Service of Ukraine (2011d, 2012d)

The structure of total resources of households in rural regions is given in Table 7. The notable growth was observed for money incomes: from 54.0% in 2000 to 82.7% in 2011. Basically, this happened due to the rise of the share of wages (by 15.3%) and pensions, scholarships, benefits and subsidies paid in cash (by 13.3%). At the same time, only a small portion of household incomes was related to entrepreneurial activity and self-employment (1.4% and 3.9% in 2000 and 2011 correspondingly).

The role of consumed products, which were produced in households, in total resources changed substantially. In 2000, these products were considered as the main income source for rural families, and their share was equal to 34.9%. Between 2000 and 2011, this indicator dropped by 22.7%. As a result, its percentage for 2011 was only 12.2%. A similar situation was observed for incomes from sales of agricultural products on which the portion fell from 13.4% in 2000 to 10.1% in 2011. These trends confirm that the impact of households on formation of their total resources reduced to a significant extent. Actually, rural households have become more oriented on external sources.

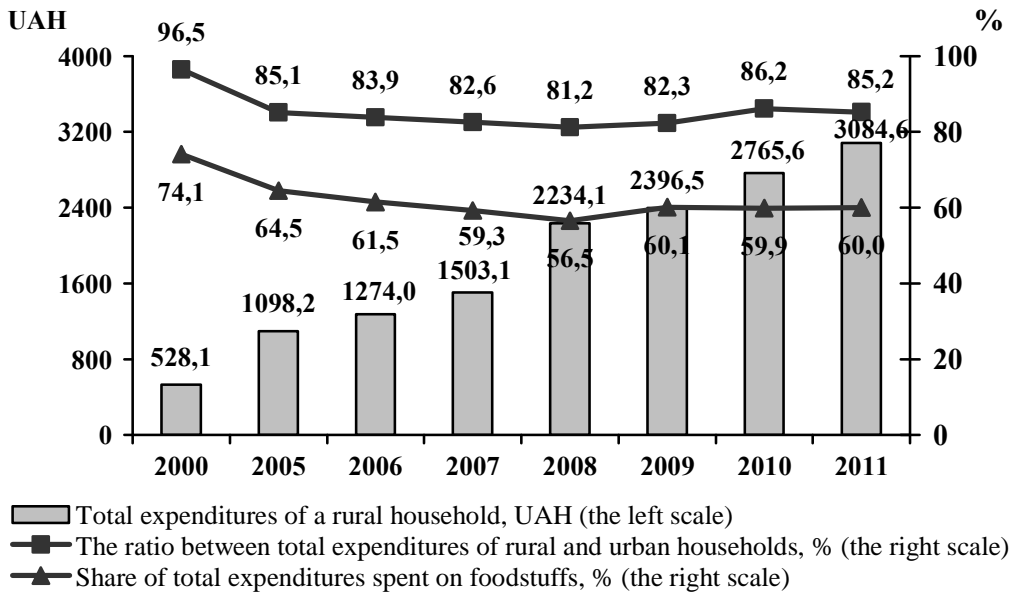
**Table 7.** The structure of total resources of rural households (in %)

Element	2000	2005	2006	2007	2008	2009	2010	2011	2011 (+,-) to 2000
Money incomes - total	54.0	78.9	79.5	81.5	81.3	81.8	82.4	82.7	+28.7
including:									
- wages	18.7	27.1	30.3	32.7	32.5	33.7	32.0	34.0	+15.3
- incomes from entrepreneurial activity and self-employment	1.4	3.7	4.2	3.8	3.9	4.6	4.8	3.9	+2.5
- incomes from sales of agricultural products	13.4	13.6	12.0	11.7	11.1	9.4	10.9	10.1	-3.3
- pensions, scholarships, benefits and subsidies paid in cash	14.2	27.5	26.5	26.6	27.0	28.1	28.5	27.5	+13.3
- cash assistance from relatives and other people and other cash incomes	6.3	7.0	6.5	6.7	6.8	6.0	6.2	7.2	+0.9
The value of consumed products which were produced in households	34.9	14.6	13.9	12.8	11.2	12.4	12.9	12.2	-22.7
Non-cash benefits and subsidies	2.3	0.7	0.7	0.7	0.7	0.7	0.6	0.7	-1.6
Other resources	8.8	5.8	5.9	5.0	6.8	5.1	4.1	4.4	-4.4

*Source:* Own composition based on data of State Statistics Committee of Ukraine (2007b, 2008b, 2009d, 2010d); State Statistics Service of Ukraine (2011d, 2012d).

In 2000-2011, the level of total expenditures of households grew from 528.1 UAH to 3084.6 UAH (Figure 10). Though, similar to total resources, this indicator in rural households was substantially lower compared with urban households. If in 2000 the ratio between rural and urban households on total expenditures was 96.5%, in 2011 it went down to 85.2%. The biggest share of total expenditures was spent on foodstuffs (2000 – 74.1%, 2011 – 60.0%). As it is known, this pattern of the use of the total expenditures is a characteristic feature of rural families living below the poverty line.

Figure 10. Total expenditures of a rural household (per month)



Source: Own composition based on data of State Statistics Committee of Ukraine (2007b, 2008b, 2009d, 2010d); State Statistics Service of Ukraine (2011d, 2012d).

Let's consider the structure of total expenditures of rural households depending on average per capita total incomes, by decile group (Table 8). First, the expenditures were mostly connected with consumption needs of rural people. The higher was the income level of households, the smaller was the proportion of these expenditures. In 2010, while for the first decile group this indicator was equal to 95.1%, the corresponding indicator for the tenth decile group was 71.5%. Second, the largest share of expenditures was used to purchase food commodities in all decile groups. Moreover, in 2008-2010, the percentage of such expenses rose significantly. In 2010, decile groups 1-5 spent more than 60% of their total expenditures on food commodities (the minimum rate - 60.5%; the maximum rate - 69.2%). These indicators were slightly lower for decile groups 6-8 (from 56.0% to 58.9%). Comparing with other groups, they were significantly smaller only for decile groups 9 and 10 (51.6% and 41.7%). However, even for these two groups, the share of expenditures on food commodities increased during 2008-2010 by 3.9% and 5.7% respectively. Third, in contrast to above-mentioned type of expenses, the decline of the share of non-consumption money expenditures occurred. This was particularly related to investment-oriented expenditures, including the purchase of shares, real estate, construction, etc. Their greatest reduction was observed for the tenth decile group of households (with the highest per capita total incomes): from 21.1 % in 2008 to 13.8% in 2010.

**Table 8.** The structure of total expenditures of rural households depending on average per capita total incomes in 2008 and 2010, by decile group (in %)

Element	Decile groups									
	first (the lowest incomes)	second	third	fourth	fifth	sixth	seventh	eighth	ninth	tenth (the highest incomes)
1	2	3	4	5	6	7	8	9	10	11
<b>2008</b>										
Consumption money expenditures	92.1	87.7	85.5	85.5	85.6	81.4	82.0	79.5	77.8	67.4
including:										
food commodities	67.8	59.8	59.3	57.4	58.0	52.4	53.3	52.3	47.7	36.0
non-food items	18.8	20.5	20.4	21.0	20.6	20.8	21.8	20.1	20.5	22.9
services	5.5	7.4	5.8	7.1	7.0	8.2	6.9	7.1	9.6	8.5
Non-consumption money expenditures	7.9	12.3	14.5	14.5	14.4	18.6	18.0	20.5	22.2	32.6
including:										
assistance to relatives and other people	1.9	2.7	3.8	5.0	5.4	5.6	7.9	7.0	8.0	9.1
the purchase of shares, real estate, construction, capital repairs, bank deposits	3.1	5.0	7.3	6.1	6.3	7.5	7.7	10.8	10.6	21.1
other expenditures	2.9	4.6	3.4	3.4	2.7	5.5	2.4	2.7	3.6	2.4
<b>2010</b>										
Consumption money expenditures	95.1	93.7	92.2	88.8	89.4	89.1	84.9	84.6	81.4	71.5
including:										
food commodities	69.2	65.7	63.5	60.5	61.8	58.9	57.0	56.0	51.6	41.7
non-food items	19.5	20.7	21.4	21.4	20.8	22.0	20.7	20.8	20.6	19.8
services	6.4	7.3	7.3	6.9	6.8	8.2	7.2	7.8	9.2	10.0
Non-consumption money expenditures	4.9	6.3	7.8	11.2	10.6	10.9	15.1	15.4	18.6	28.5
including:										
assistance to relatives and other people	1.5	2.7	3.5	4.5	5.2	5.5	6.6	8.1	9.4	11.8
the purchase of shares, real estate, construction, capital repairs, bank deposits	2.1	2.5	3.1	5.6	4.0	4.2	6.9	5.0	7.1	13.8
other expenditures	1.3	1.1	1.2	1.1	1.4	1.2	1.6	2.3	2.1	2.9

Source: Own composition based on data of State Statistics Committee of Ukraine (2009a); State Statistics Service of Ukraine (2011a).

We can conclude that the significant share of rural households is still considered as a mean of survival of rural residents under conditions of limited employment and income-earning opportunities. The majority of households employ manual labor. The use of machinery and equipment in households is at a quite low rate. To increase their



production efficiency, competitiveness, incomes, and commercial orientation, it will be necessary to implement appropriate measures, which are discussed in the next section.

### **Discussion**

As analyzed in the previous sections of the paper, most rural households are involved in subsistence farming. Though, we share the point of view that the development potential of the household sector is not exhausted yet. The question is: What a model will be used by Ukrainian households in the long-term perspective? Based on the current model, they will have only limited possibilities for further development. Moreover, there will be a growing gap between households and agricultural enterprises regarding various indicators. This is connected with the predominance of manual labor and the insufficient use of modern technologies in rural families. In this case, households will still have the subsistence character.

To implement the second, commercial-oriented model, fundamental transformations should be made in the household sector. This model requires changes in the perception of the role of households in the rural economy and in the mentality of rural people. Special attention ought to be devoted to promote cooperation between households. Such cooperation should comprise not only agricultural production activities, but also the processing, storage, transportation, sale of agro-food products, provision of different services, etc. The creation of cooperative structures ought to be initiated by households themselves, rather than being imposed from the outside. Household members should have a conscious desire to joint activities and an understanding of opportunities which can be available to them as a result of the establishment of cooperatives.

As stated by Prokopa et al. (2010), there is a tendency of differentiation among households in terms of production characteristics. It is related to the formation of the segment of commercial households. This means there are prerequisites for the development of small agrarian business and the spread of the farmer way of living. It confirms that the second model is expanding in rural regions. It is essential to create organizational and economic conditions which would stimulate a further growth in the number of these households, as well as a gradual shift of rural families from self-consumption of agricultural products to their sales on the market.

It is also necessary to go beyond its current orientation towards agricultural production. In this context, special target programs should be introduced to encourage development of non-agricultural activities in rural regions. They will have a positive impact on the economic situation of rural households, and, consequently, on the quality of life of rural residents.

### **Conclusions**

Based on presented data, it can be concluded that the demographic situation in rural households worsened significantly. This is confirmed by the predominance of small households, the significant portion of households without children, and the deterioration of household age characteristics.

The share of households provided with various types of amenities increased to some extent. However, rural settlements continued to lag behind urban settlements regarding the availability of household amenities. This unfavorable situation took place because of insufficient attention which was paid to the social development of rural regions during market transformations.

It should be noted that specific tendencies were observed in households regarding agricultural production. On the one hand, the substantial growth of their land area and share in gross agricultural output happened. The increase was particularly related to production of labor-intensive agricultural products. On the other hand, the decline of the production efficiency of the household sector occurred. The main reasons caused this negative change in households were the following:

- the wide use of manual labor;
- the low level of the provision of rural families with machinery and equipment;
- insufficient application of measures for effective agricultural production.

Data concerning total resources and expenditures confirmed that socio-economic differentiation between rural households was observed. Though, only a small proportion of them became market-oriented and had high incomes. The majority of households still had the subsistence character.

In our opinion, to improve the socio-economic state of rural households, it is necessary to implement the commercial-oriented model. This model requires changes in the perception of the role of households in the rural economy and in the mentality of rural people. Particular attention should to be paid to promote cooperation between households and to develop non-agricultural activities in rural regions.

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