

## TRENDS OF THE RURAL LABOUR MARKET AND AGRICULTURAL HUMAN POTENTIAL EVOLUTION UNDER THE INFLUENCE OF DEMOGRAPHIC PHENOMENA IN THE REPUBLIC OF MOLDOVA

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### *Abstract*

*The main objective of this investigation was to study the correlative aspects in the evolution of demographic phenomena, labour market in the rural space and human potential from agriculture in the Republic of Moldova. As methodological tools there were used the economic analysis, synthesis, generalization, concretization and reasoning. As a result of our research there have been highlighted correlative trends of the demographic phenomena and basic indicators of the labour market in the rural areas. Also, it was analyzed the human potential from agriculture, underlying the same trends in its evolution, as in the evolution of the labour market in the rural space. The main conclusion of the investigation consists in the need to develop more effective mechanisms to solve the demographic problems especially in the rural areas of the Republic of Moldova, thus being also created prerequisites to improve the negative phenomena manifested in the evolution of human potential from agriculture.*

*Key words:* vegetable, price volatility, commercialization, supply chain

### INTRODUCTION

It is well known that human resources have an important role in any activity. Agriculture, as a branch with a series of specific features, involves an increasing role of these resources. Referring to the agriculture of the Republic of Moldova and taking into consideration the low mechanization level of the work processes, we conclude that this is another argument in favour of the major significance of labour resources. Under the above mentioned facts we can say with certainty that the problems of labour market evolution in the rural areas, a market that provides the necessary labour force for a certain branch, represents a priority of the trend to create adequate conditions for a sustainable agriculture.

### MATERIALS AND METHODS

As material for the present investigation the authors used demographic data from certain studies on the demographic and labour market evolution in the rural areas, exposed in the Situational Study of the Rural Labour Force,

including its study by gender (Harbu et al., 2010), the edition of the National Bureau of Statistics of the Republic of Moldova "Labour Force in Moldova. Employment and unemployment" (2012), Labour Market Forecast, 2012 prepared by the Ministry of Labour, Social Protection and Family of the Republic of Moldova in cooperation with the National Agency for Employment, as well as recent statistics on the demographic phenomena, labour market evolution in the rural areas and human potential from agriculture, being analyzed the period 2001-2012.

The investigation was accomplished using the following methods: analysis, synthesis, generalization, and reasoning.

### RESULTS AND DISCUSSIONS

Evolutionary trends of the labour market are determined by several factors. Among them a special role is given to demographic phenomena. Multilateral studies on the evolution of Moldova's population revealed a number of serious demographic problems, such as reduced number of people, because of

lower birth rates and increased mortality, increased process of population ageing and, consequently, the ascendancy of the median age and growth of the demographic dependency rate. Thus, examining correlatively the evolution of the total population and by areas (Table 1) we can conclude that in the period 2000-2011, there is a reduction tendency of all categories of the

analyzed population (Statistical Yearbook, 2011; Labour force in the Republic of Moldova. Employment and unemployment, 2012). Meanwhile, since 2007, the trend of rural population reduction is greater than the total population and urban population, and this is also confirmed by the lower level of the dynamics index.

Table 1. The evolution of Moldova's population by areas

Year	Total population		Urban population		Rural population	
	Thousand inhabitants	Dynamics index, %	Thousand inhabitants	Dynamics index, %	Thousand inhabitants	Dynamics index, %
2000	3644,1	-	1514,2	-	2129,9	-
2001	3635,1	0,998	1486,4	0,982	2148,7	1,009
2002	3627,8	0,998	1485,2	0,999	2142,6	0,997
2003	3618,3	0,997	1484,1	0,999	2134,2	0,996
2004	3607,4	0,997	1477,9	0,996	2129,5	0,998
2005	3600,4	0,998	1476	0,999	2124,4	0,998
2006	3589,9	0,997	1469,8	0,996	2120,1	0,998
2007	3581,1	0,998	1478	1,006	2103,1	0,992
2008	3572,7	0,998	1476,1	0,999	2096,6	0,997
2009	3567,5	0,999	1476,1	1,000	2091,4	0,998
2010	3563,7	0,999	1476,1	1,000	2087	0,998
2011	3563,7	1,000	1481,7	1,004	2078,7	0,996

Examining another parameter of the rural population, the median age (Figure 1), we can conclude about its dynamic growth.

Thus in the period 2001-2011, it increased by 2,9 years (Statistical Yearbook, 2011; Labour force in the Republic of Moldova. Employment and unemployment, 2012).

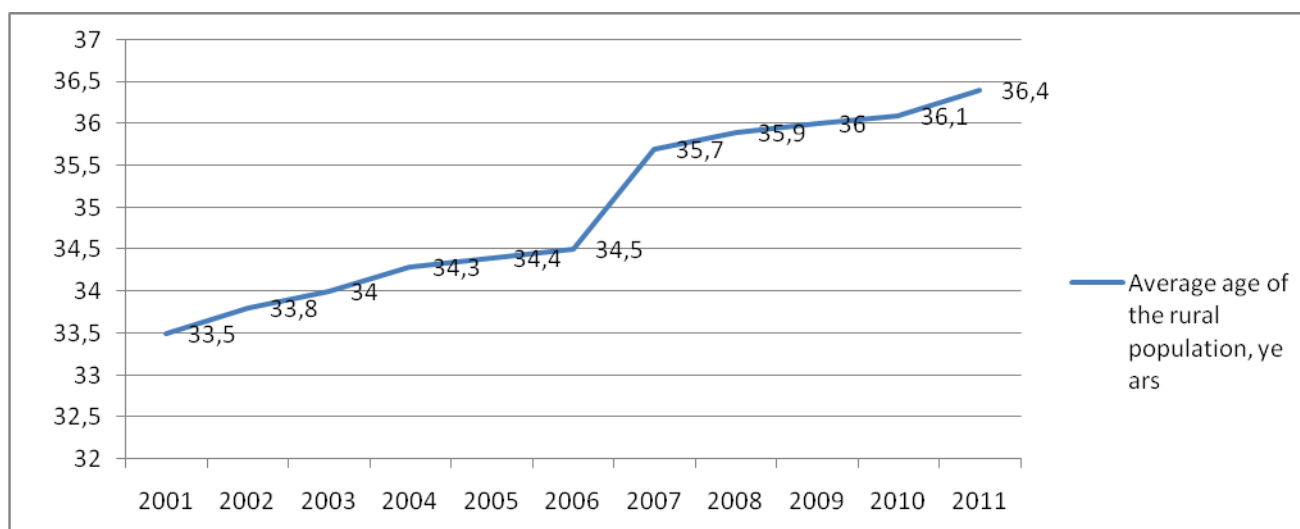


Figure 1. Average age evolution of Moldova's population from the rural areas

Already the dynamic growth of the average age of rural population represents a reason to conclude about an unfavorable demographic situation. The situation becomes even more alarming after the analysis of the population ageing coefficient, an indicator expressing the number of persons aged 60 years and more

per 100 inhabitants. Thus, analyzing Figure 2 (Statistical Yearbook, 2011; Labour force in the Republic of Moldova. Employment and unemployment, 2012), we can mention a positive dynamics of this indicator in the period 2001-2005 and the increase of this coefficient in the next period.

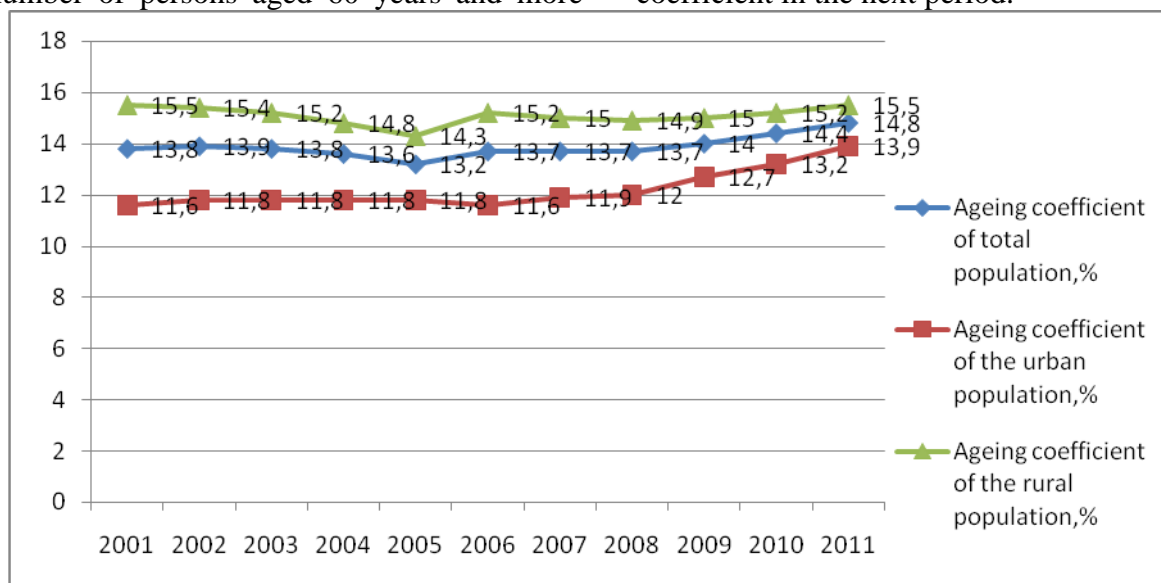


Figure 2. The evolution of population ageing coefficient in the Republic of Moldova in the period 2001-2011

Also, we noticed that the population ageing process is more intense in the rural areas. It should be mentioned that the critical limit of this coefficient in most European countries is considered 12%. Therefore, if in 2011 the ageing coefficient of total population in the Republic of Moldova exceeded the average one of the European countries by 2.8 percentage points, the rural population ageing coefficient exceeded it by 3.5 percentage points.

It is obvious that population reduction and ageing affect the labour market both quantitatively and qualitatively. Examining the data from Table 2 (Harbu et al., 2010).

Labour force in the Republic of Moldova. Employment and unemployment, 2012) we observe a continued reduction of the economically active and employed population in the rural areas, accompanied by a reduction of the activity and employment rates. As a result, in 2011, the economically active rural population was by 299,5 thousand people less than in 2001, while the employed population reduced in the same period by 307,8 thousand

people. Simultaneously, there was noticed a reduction of the activity and employment rates, respectively, by 21,3 and 21,7 percentage points.

The negative trends manifested in the evolution of the labour market in rural areas undeniably affect the human potential from agriculture. Performing a correlative study on the evolution of the number of employed rural population and rural population involved in agricultural activities, we found out that during 2001-2011 the employed rural population reduced by 307,8 thousand people, while the number of those employed in agricultural activities reduced respectively by 410,2 thousand people.

Higher reduction rate of the human resources involved in agriculture compared with the reduction of total employed population from rural areas can be more clearly elucidated graphically (Figure 3) and can be explained by the impact of several factors, including the motivation.

Referring to the reduction of the number of population employed in agriculture in the

Republic of Moldova, it is quite difficult to give it an exact rating.

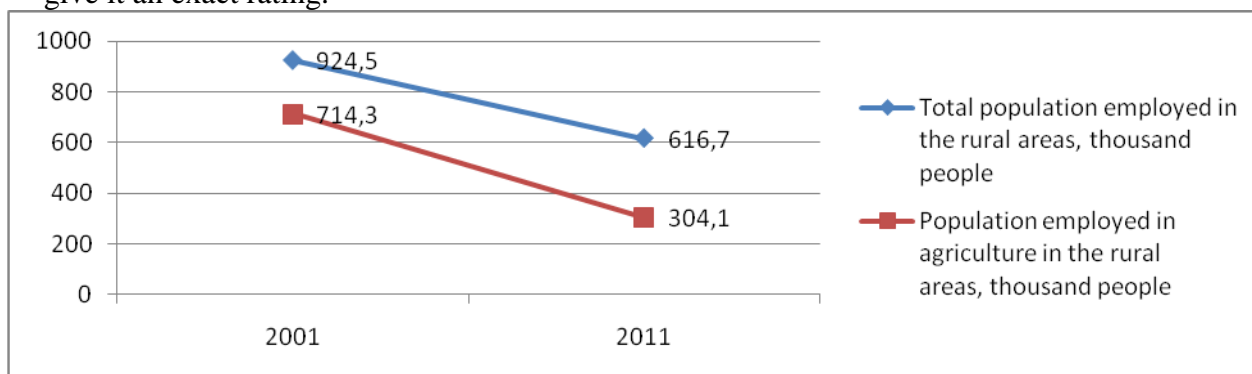


Figure 3. Dynamics of employed population and population involved in agricultural activities in the rural areas in the period 2001-2011

Thus, in 2011, 27.5% (323,000 persons) out of the total Moldova's population were employed in agricultural activities, while the EU average of people employed in agriculture was of 5%. Nevertheless, according to a survey conducted by the Ministry of Labour, Social Protection and Family of the Republic

of Moldova in cooperation with the National Agency for Employment (2012), approximately 17.1% of the agricultural economic units declare that they have labour force deficit.

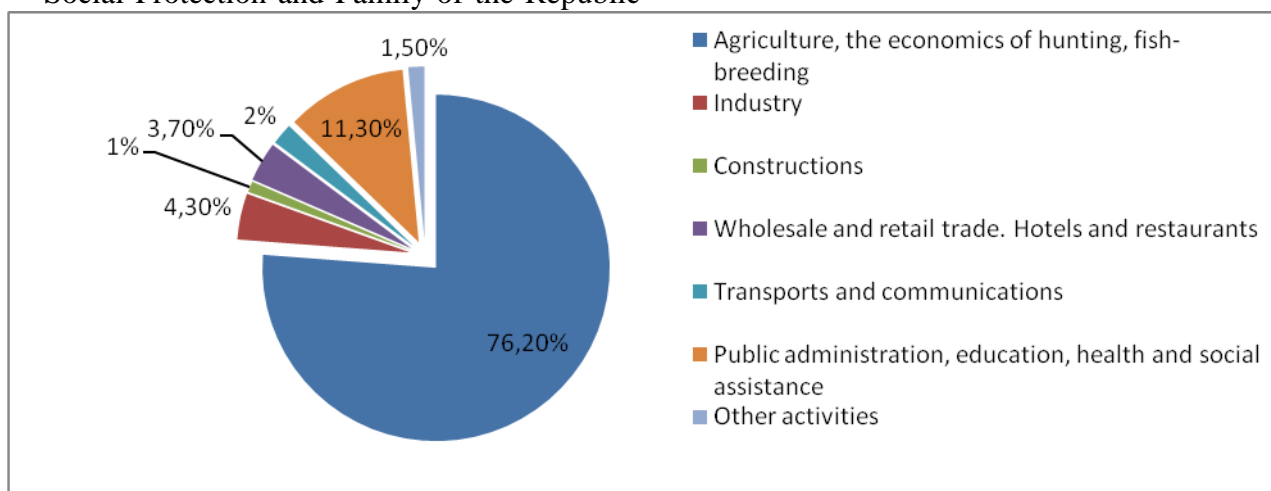


Figure 4. Structure of employed rural population by economic activities in the year 2000

The withdrawal of labour force from the agricultural sector would be justified if the redundant human potential would get involved in other rural activities. The comparative analysis of the structure of rural employment by economic activity in 2000 (Harbu et al., 2010) and 2011 (Labour force in the Republic of Moldova. Employment and unemployment, 2012) shows, however, that if the share of employment in agriculture in this period fell by 26,9 percentage points, the share of employment in other economic sectors (industry, construction, trade,

transport etc.) increased by only 11 percentage points (Figures 4,5).

Therefore, there was a decrease of the staff employed in the branches able to contribute to the gain of economic benefits. Based on the mentioned above, we can say with certainty that the reduction of the human potential from Moldova's agriculture represents, at present, a serious problem and can not be justified with analogous trends from the European countries.

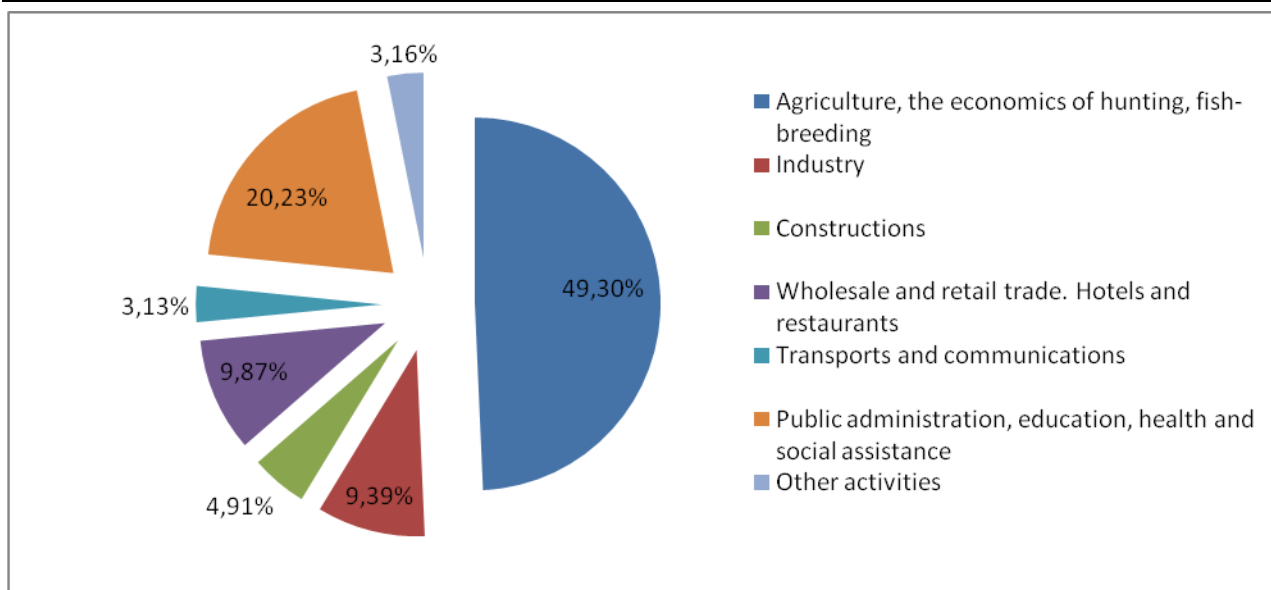


Figure 5. Structure of employed rural population by economic activities in the year 2011

Simultaneously, we noticed that along with the decrease and ageing phenomena of the employed rural population, there is a reduction of the intellectual potential from

agriculture, fact confirmed by data presented in Figure 6.

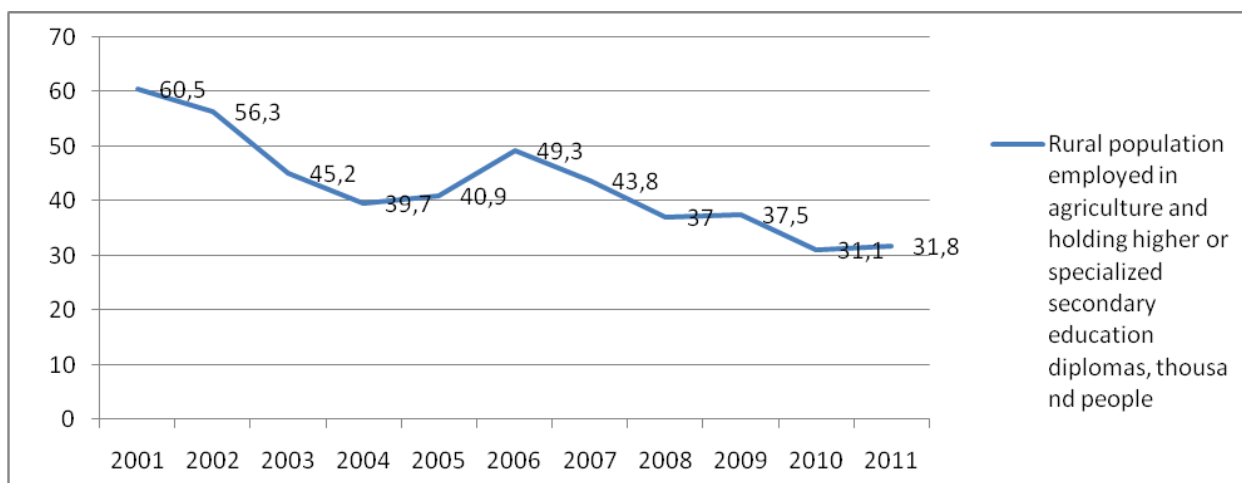


Figure 6. Evolution of the rural population employed in agriculture holding diplomas of higher or specialized secondary education in the Republic of Moldova in the period 2001-2011

According to data presented in Figure 6 (Statistical Yearbook, 2011; Labour force in the Republic of Moldova. Employment and unemployment, 2012) in 2001, 60,5 thousand people holding higher and specialized secondary education diplomas were employed in agriculture, while in 2011 their number decreased almost 2 times, falling down to 31,8 thousand people. Another unfavorable trend manifested in the evolution of human resources from agriculture in the analyzed period is the phenomenon of human potential

ageing as a natural consequence of the employed rural population ageing (Statistical Yearbook, 2011; Labour force in the Republic of Moldova. Employment and unemployment, 2012). Therefore, in 2001, out of the total rural population employed in agriculture 397,5 thousand people (55.6%) were aged between 15-44 years and 316,9 thousand people (44.4%) were aged 45 years and more (Figure 7), while in 2011, the share of people aged 45 years and more was higher,

constituting 50,9% of the total number of people employed in agriculture (Figure 8).

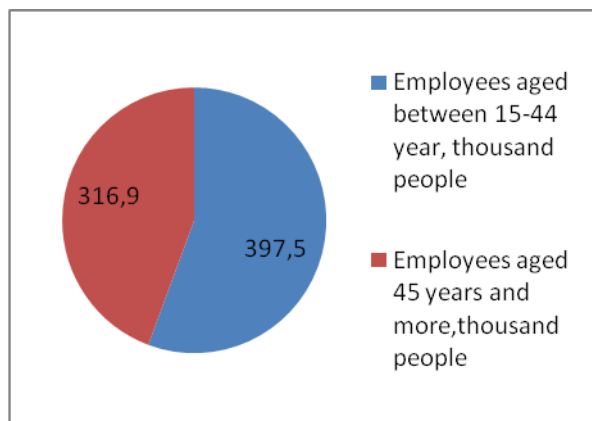


Figure 7. The share of age groups of the rural population employed in agriculture in the year 2001

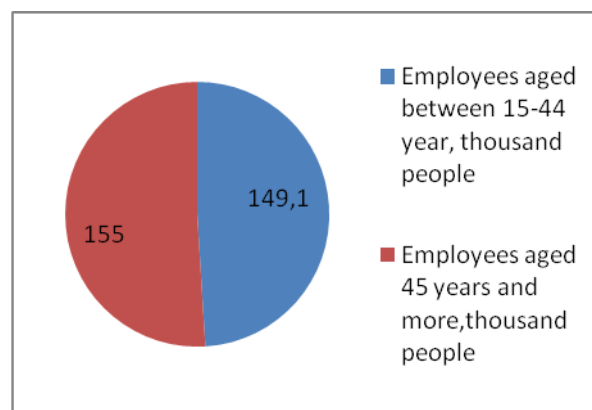


Figure 8. The share of age groups of the rural population employed in agriculture in the year 2011

## CONCLUSIONS

Negative demographic phenomena that also occurred in the Republic of Moldova in the last decade manifested with greater intensity in the rural areas.

Therefore, along with the reduction of the rural population number, there is an increase of the medium age and hence, of the population ageing coefficient.

Simultaneously, the rural labour market gets affected, fact argued by the reduction of the active and employed population and by the activity and employment rates.

Among the problems that occur in the rural labour market evolution and that have caused major human potential deficit in agriculture, we can mention the following:

- Reduction of the number of people employed in agriculture;
- Increased share of workers aged 45 years and more (human potential ageing);
- Reduction of the number of workers holding higher and specialized secondary education diplomas.

Without diminishing the significance of the motivational factor in the evolution of human resources in agriculture, it is obvious that demographic phenomena have a significant impact on the human potential of this branch; impact caused by the trends in the rural labour market dynamics.

Based on the above mentioned facts, it is necessary to develop more effective mechanisms to solve the demographic problems especially in the rural areas of the Republic of Moldova, thus creating prerequisites for the improvement of negative phenomena manifested in the evolution of human potential from agriculture.

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