

HUMAN RESOURCES IN THE REPUBLIC OF MOLDOVA AGRICULTURE: PAST, PRESENT AND FUTURE

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Abstract

The aim of the present study is to continue the investigation of the evolution of the number, professionalism and creativity of those employed in the national agriculture in order to elaborate some proposals regarding the efficient use of the human potential in the respective branch of the national economy. There was a constant decrease in the number of the population, both due to a decrease in the natural increase and an increase in the number of emigrants. At the same time, the proportion of the population in rural areas is increasing, which obviously needs to be secured by jobs. Even if the employment rate in agriculture has fallen from 42.8% in 1995 to 32.0% in 2015 or by 10.8 percentage points it remains clearly higher than the EU Member States and neighboring countries. The share of persons with higher education in agriculture fell from 11% in 2000 to 5% of all those with higher education in 2017 or 6 percentage points. In the agriculture of the Republic of Moldova dominate those with gymnasium studies, which are 36.5%. We consider it appropriate to develop and apply economic mechanisms that can contribute to the natural growth of the population, especially the rural ones. to halt or at least to temper the emigration of the citizens of our country, especially of the youth, by elaborating and implementing ways that would equalize the incomes of the rural population with that of our country, to make the training of those who will activate in the national agriculture more efficient.

Key words: agriculture, human resources, efficiency, professionalism, creativity

INTRODUCTION

The level of development of agriculture, indisputably, is dependent on the human potential that highlights the natural, material, financial, informational resources available. It is natural to always show a keen curiosity and at the same time awaken to the human potential available to national agriculture, to the performance and creativity of those trained in agriculture to achieve the desired result.

Aspects regarding the study of the human potential of the Republic of Moldova have been exhibited in various national and international publications. Thus, for example, in 2017, Olga Gagauz and Irina Pahomi in the Center for Demographic Research at the National Institute for Economic Research of the Republic of Moldova published the "Full Territorial Demographic Security Index: Dynamics 2014-2016"; Leonid Boaghe, in no. 2 in 2018 of the Journal of Public Administration presents "Human resources

management within the local public administration of the Republic of Moldova: problems and solutions"; PhD student ASEM Olga Buiucli in volume II of the collection of selective articles of the Conference International Scientific Conference "Competitiveness and Innovation in the Competitive Economy" from 22-23 September 2017 presented the "Human Resources Behavior on the Labor Market of the Republic of Moldova". This list can be extended. Certainly, various aspects of human resources in agriculture are being investigated. However, the evolution of the agro-food sector caused by the demonopolisation of state property over the land, the establishment and development of "peasant farms (based on real economic independence)" undoubtedly requires the amplification and efficiency of scientific researches on human resources trained in agriculture has led us to continue studying the human potential available to national agriculture.

MATERIALS AND METHODS

In research we have used our previous materials and other publications that helped us to understand and explain the specific phenomena regarding human resources in agriculture of Republic of Moldova.

In order to estimate their impact on the development sustainability of the national agro-food sector we use quantitative analysis both for the number of people enrolled in this branch of the national economy and their professionalism requirements that gave us relevant meanings and explanations, which generate some proposals with regarding the assurance of the national agriculture with the necessary human resources.

RESULTS AND DISCUSSIONS

For all countries, including Republic of Moldova, agriculture has been, is and will remain the support of human existence and is therefore the most powerful factor influencing economic and social stability. In our country agriculture is also the backbone of the national economy.

Production of agricultural goods remains important for the national economy even if their contribution to GDP formation is reduced from 29.0% in 1995 (Table 1) to 11.6% in 2017, yielding 0.4% relative to industry.

Table 1. Contribution of the main economic activities to gross domestic product (GDP), (%)

	1995	2000	2005	2010	2015	2016	2017
GDP	100	100	100	100	100	100	100
Of which: agriculture	29.0	25.0	16.4	11.9	12.3	12.3	11.6
- industry	25.0	16.0	15.8	13.3	12.3	12.2	12.0
- trade	8.0	13.0	10.4	12.9	13.7	14.2	15.2
- other	38.0	46.0	57.4	61.9	61.7	61.3	61.2

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova

The total agricultural output, in current prices, increased about 8 times from 4,243 mil lei in 1995 (Table 2) to 34,142 mil lei in 2017.

This growth is mainly caused by prices. If in 1995-2005 the global agricultural production in current prices increased by 3 times and in

2005-2014 - by 1.9 times, then in comparable prices of 2000 - by only 10.8% and comparable of 2005 - with 4 percent. The vegetable production registered the most spectacular growth by 9 times from 2,687 Mil. Lei in 1995 to 24,435 Mil. Lei in 2017.

Table 2. Global agricultural production, in current prices, Mil. Lei

	1995	2000	2005	2010	2015	2016	2017
Total production, of which:	4,243	8,268	12,688	19,873	27,193	30,362	34,142
-vegetal	2,687	5,790	8,449	13,616	18,082	21,098	23,435
-animal	1,393	2,202	3,851	5,786	8,584	8,768	9,191
-services	163	276	388	471	527	496	516

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova

The agrarian reform, initiated by the Moldovan Parliament's decision in 1991, has generated major changes in the structure of the agricultural product. Within 1995-2017 period agricultural production was dominated by crop production that practically constantly decreased from 70.0% in 1995 (Table 3) to 58.0% in 2015 and then increased to 73.6% in 2017 [2].

Vegetable crops show the grain crop weights ranging from 18.8% in 2010 to 26.5% in 2016. If in the 1990s fruit was 17%, then in the years 2000-2017 their share ranges from 3.0% in 2000 to 9.2% in 2017. Only in 2017 fruit, nuts, berries and grapes together reached the share of fruit in the 90s, forming 17.7% that is 8.2% smaller than the share of cereals. More than 80% of the area cultivated in the Republic of Moldova is covered by so called

cash crops such as cereals, oilseeds, and sugar beet and fodder crops. Only cereals (including wheat, corn and barley) occupy more than half

of the sown areas.

Fruit and vegetables occupy less than 20% of the cultivated area.

Table 3. Structure of agricultural production by branches in households of all categories, %

	1995	2000	2005	2010	2015	2016	2017
Total agricultural production	100	100	100	100	100	100	100
a. vegetal, of which:	70.0	69.0	68.9	66.2	58.0	72.2	73.6
- cereal crops	19.0	25.0	22.9	18.8	20.3	26.5	25.9
- vegetables	7.0	5.0	7.3	7.4	7.1	7.0	5.8
- fruits, nuts, berries	7.0	3.0	4.4	3.9	6.5	8.0	9.2
- grapes	9.0	12.0	12.8	12.1	7.0	7.0	8.5
b. animal, of which:	30.0	31.0	31.1	33.8	42.0	27.8	28.4
cattle, poultry meat	16.0	14.0	14.8	18.9	25.9	15.9	15.3
- milk	10.0	13.0	10.9	10.2	10.7	6.2	6.6
- eggs	3.0	4.0	4.4	4.0	3.5	2.9	3.0

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova.

The trend of increasing the share of animal production from 30% in 1995 to 42% in 2015 due to massive state support and the subsequent reduction to 27.8% in 2016, registering a slight increase (28.4%) in 2017. In the structure of livestock production, cattle and poultry production dominate between 14% in 2000 and 25.9% in 2015.

Changes that have taken place in the structure of agricultural production indicate a tendency to decrease the share of intensive crops such as grapes, fruits, vegetables, tobacco etc. and increasing the share of products that require less capital such as wheat, corn, sunflower and others. Obviously, such a structure of agricultural production generates low levels of efficiency. This situation was confirmed in the "Moldova's Agriculture and Rural Development Strategy 2014-2020". Paragraph

11 of the strategy notes that "The low profitability of the agricultural sector is determined by the dominant position of low-value crops in agricultural production at the expense of high-value crops." Both the structure of agricultural production and the situation in each segment of agriculture is determined by the available resources among which human resources have a decisive role to play.

The Human Potential of the Republic of Moldova

The total population in our country is slightly decreasing to 4,361.6 thousand persons in 1990 (Table 4) to 4,347.9 thousand in 1995 due to the fact that in 1995 the statistics no longer include the inhabitants of the districts on the left bank of the Dniester river.

Table 4. Stable population by environment

	Population (thousands)			% of total		Natural growth		
	total	urban	rural	Urban	rural	total	urban	rural
1990*	4,361.6	2,069.3	2,292.3	47.4	52.6	8.0	9.3	6.6
1995	4,347.9	2,033.0	2,314.9	46.8	53.2	0.8	1.5	0.2
2000	3,644.1	1,514.2	2,129.9	41.5	58.5	-1.1	-0.4	-1.8
2005	3,600.4	1,476.0	2,124.4	41.0	59.0	-1.9	-0.4	-3.0
2010	3,563.7	1,476.7	2,087.0	41.4	58.6	-0.9	1.1	-2.3
2015	3,555.2	1,507.3	2,047.9	42.4	57.6	-0.3	0.2	-0.8
2016	3,553.1	1,511.1	2,042.0	42.5	57.5	-0.3	0.4	-0.8
2017	3,550.9	1,516.8	2,034.1	42.7	57.3	-0.8	-0.1	-1.3
2018	3,547.5	1,521.9	2,025.6	42.9	57.1	-	-	-

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova.

After 1995, the population continued to decrease to 3.55 million in 2018. Natural population growth declined from 8.0 in 1995 to -0.8 in 2017.

The share of population in rural areas increases from 52.6% in 1990 to 59.0% in 2005 due to internal migration from city to village, then has a clear tendency to decrease

slightly, forming 57.1% of the total population in the year 2018. If the natural increase in the urban area has diminished since it is reduced from 9.3 in 1990 to -0.1 in 2017, then in the rural area respectively from

6.6 to -1.3.

The coefficient of aging (the number of people aged 60 and over) continuously increases from 12.8 in 1990 (Table 5) to 17.7 in 2017 or 4.9 units.

Table 5. Number of persons aged 60 and over per 100 inhabitants

	Total			Urban			Rural		
	total	male	female	total	male	female	total	male	female
1990*	12.8	10.4	15.0	10.1	7.8	12.1	15.2	12.6	17.5
1995	13.1	10.7	15.3	10.1	8.1	12.1	15.6	13.0	18.0
2000	13.6	11.2	15.9	11.0	9.0	12.9	15.5	12.8	17.9
2005	13.6	11.0	15.9	11.8	9.9	13.6	14.8	11.8	17.5
2010	14.4	11.8	16.8	13.2	11.3	15.0	15.2	12.2	18.1
2015	16.7	13.8	19.3	16.6	14.0	18.8	16.8	13.7	19.7
2016	17.2	14.2	19.9	17.3	14.6	19.6	17.1	14.0	20.1
2017	17.7	14.8	20.5	18.0	15.2	20.4	17.6	14.5	20.1

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova

So, over the years indicated in the table, the number of people aged 60 and over exceeds the admissible level of demographic aging (12%) indicated on the G. Bojio-Gamier scale. The coefficient of male aging in those years increased from 10.4 to 14.8 or 4.4 units, and for women - from 15.0 to 20.5 or 5.5 units [5]. The evolution of the aging coefficient in the village differs. In 1990 the number of persons aged 60 years and over exceeded the total in the Republic of Moldova by 2.4 units, including men - by 2.2, in women with 2.5. In the years 2016 and 2017 the number of people

aged 60 years and over in rural areas was lower both in relation to those in the urban and the total country.

Human potential is part of the resources that can circulate freely throughout the territory. As of April 28, 2014 [1], the citizens of our country, can travel without visas into the European Union, which undoubtedly is an advantage for those who travel. However, the situation created in the national economy has forced the population, especially young people, to look for work abroad, which has spurred the emigration of the population.

Table 6. Population working abroad, thousands

Age	Gender	2000		2005		2010		2015		2016		2017	
		total	rural										
Total	Total	138.3	82.1	394.5	282.1	311.0	220.5	325.4	223.9	319.0	224.9	318.4	221.8
	Male	93.1	56.5	262.8	190.8	198.0	143.3	210.8	143.3	212.3	146.3	211.3	144.2
	Fem	45.2	25.6	131.7	91.6	113.0	77.1	114.6	80.6	106.8	78.6	107.2	77.0
15-24	Total	53.8	37.3	120.0	99.1	69.7	57.3	60.6	48.4	58.1	47.9	50.7	40.3
	Male	34.6	24.7	79.8	65.0	56.6	42.5	44.8	36.6	43.6	35.9	35.3	28.8
	Fem	18.5	12.6	40.2	34.1	18.1	14.9	15.8	11.8	14.5	12.0	14.4	11.5
25-34	Total	37.9	20.9	111.5	75.5	102.2	70.5	125.9	83.4	120.9	82.8	121.6	81.6
	Male	26.6	15.0	78.2	52.1	70.3	48.9	90.6	58.7	91.3	60.6	89.8	60.8
	Fem	11.3	5.8	33.3	23.4	31.9	21.6	35.2	24.7	29.7	22.2	31.9	20.8
35-44	Total	33.4	17.8	93.6	65.0	68.6	48.9	70.3	46.7	71.1	47.5	72.9	51.5
	Male	22.5	12.2	61.5	44.8	40.0	29.0	43.4	26.6	43.9	28.4	46.1	31.3
	Fem	10.9	5.6	32.1	20.1	28.6	19.9	26.9	20.1	27.2	19.1	26.9	20.2
45-54	Total	13.0	5.8	63.0	39.9	58.3	37.3	50.6	33.6	49.5	34.2	52.9	35.6
	Male	8.6	4.3	38.6	26.6	29.7	19.9	23.9	16.1	24.8	16.4	30.0	19.0
	Fem	4.3	1.5	24.4	13.3	28.5	17.4	26.7	17.6	24.7	17.8	22.9	16.6
55	Total	0.8	0.3	6.2	2.9	12.2	6.4	17.4	11.2	18.6	11.9	19.6	12.2

Source: www.mold-street.com/?go=news&n=7779, Accessed 02.03.2019

The total population in our country working or looking for work abroad increased from 138.3 thousand persons in 2000 (Table 6) to 311 thousand persons in 2010 or 2.25 times,

then practically stabilized oscillating slightly reached 318.4 thousand people in 2017 or about 2.4 percent.

Note that according to the data of the

diplomatic and consular missions of the Republic of Moldova in the host countries the estimated number of Moldovan citizens living abroad was increased from 505,139 in 2011 to 983708 in 2014 and decreases to 805,609 in 2015. We will not comment on the situation, we will analyze the information presented on [http / www.statistica.md](http://www.statistica.md).

The number of people living in the countryside working or looking for work abroad has increased from 82.1 thousand persons in 2000 to 220.5 thousand people in 2010 or 2.69 times and constantly increases to 224.9 thousand in 2016 decreasing to 211.8 in 2017 or by about 2 % compared to 2010. Those at work or looking for work abroad from rural areas in 2000 formed 59.4 of the total country or by 0.9 percentage points more than the share of the resident population (58.5%), and in 2017 - 66.5% or by 9.2 times (57.3%) than the share of the rural population in that year.

The total number of women working or looking for work abroad has increased from 45.2 thousand in 2000 to 107.2 thousand in 2017 or 2.37 times, and in the rural area from 25.6 thousand to 77. 0 thousand or about 3 times. If in 2000 every woman in the rural area working or looking for work abroad had 2.2 men, then in 2017 - 1.87 men.

According to the diaspora mapping study carried out by the International Organization for Migration (IOM) experts, mission in Moldova, over 70 per cent of Moldovan emigrants are young people up to 40 years of age. The selected and processed information shows that in 2000 the number of those aged between 25 and 44 from the rural area working or looking for work abroad amounted to 38.7 thousand persons (47.1% of the total number of those left of rural space) and rises to 133.1 thousand persons (60.0% of all those left out of rural areas) in 2017.

In the same ILO study it is claimed that emigrants study. Thus, the data of an annual report in the Moldovan medical field shows that "in the first years after independence Moldova had over 45,000 nurses and around

16,300 physicians, in 2017 their number reached 25,125 and, respectively, 13,021, the main cause being the migration of medical staff.

Those who leave our country looking for a job abroad largely engage in unskilled jobs. Most women work in the field of domestic services, child and sick care and hotel services, and men work in construction and transport.

The diaspora mapping survey conducted between February 2016 and February 2017 in seven ILO expert countries shows that the absolute majority of the population in our country working or looking for work abroad integrates well in destination countries. This research states that "if in the past years the main objective of our countrymen in the process of integration in another country was legalization, more and more people want recognition of diplomas obtained in Moldova in recent years".

Emigrants from our country do not see us returning home. The reasons for this decision are the lack of confidence in the political system and the precarious situation in the national economy. According to the Garda newspaper in December 2016 and until mid-2017, the presidency issued 4 decrees signed by Igor Dodon, through which 612 people, including 139 children, gave up the Moldovan citizenship. Natural growth and population emigration strongly influenced the number of those working in the Republic of Moldova.

Human Resources in National Agriculture

Adam Smith's statement "Human activity creates the mass of goods" is perfectly valid for agriculture as well. The economically active population, which in 1995 was 1,696 thousand persons (Table 7), has a clear tendency to decrease to 1,259 thousand persons in 2015 or 25.77%.

The activity rate of 47.1% in 1995 decreased to 35.5 percent of total national human resources.

In other words, in these years the share of the economically active population in the total national human resources decreased by 11.6 percentage points.

Table 7. Labor force in the Republic of Moldova, thousands

	1995	2000	2005	2010	2015	2016	2017
Population, total	3,604	3,639	3,595	3,582	3,555	3,552	3,549
Of which: economically active	1,696	1,655	1,422	1,235	1,266	1,273	1,259
share, %	47.1	45.4	39.5	34.7	35.6	35.6	35.5
Of which in real sector of economy	1,673	1,515	1,319	1,143	1,203	1,220	1,207
share, %	46.5	41.2	36.6	32.1	33.8	34.3	34.0
Of which in agriculture	711	765	537	315	382	411	390
share, %	42.8	50.5	40.7	27.5	31.7	33.7	32.3

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova.

The employed population in the economy of the Republic of Moldova decreases from 1673 thousand persons (98.64% of the economically active population) in 1995 to 1,207 thousand persons (95.87% of the active population) in 2017 or by 27.85% [4].

The number of those employed in agriculture

decreased from 711 thousand (42.5% of the total employed in the national economy) in 1995 to 390 thousand (32.3% of the total employed in the national economy) in 2017 or 1.86 times. The employment rate in agriculture has fallen from 42.8% in 1995 to 32.0% in 2015 or by 10.8 percentage points.

Table 8. Distribution of population by age, thousands

	Year	Total	of which:					
			15-24	25-34	35-44	45-54	55-64	65 and over
Employed population	2005	1,319.0	124	252	341	384	158	60
	2015	1,204.0	93.6	300	293	290	190	37
	2016	1,219.5	84.9	312.6	297.1	280.8	200.8	43.3
	2017	1,207.5	79.8	302.1	301.9	267.9	209.7	48.1
Of which: - in rural area	2005	745.0	71.9	121	184	222	93.4	52.8
	2015	648.0	56.2	138	159	161	108	25.8
	2016	659.7	47.6	145.7	155.5	163.4	118.2	30.2
	2017	657.4	45.8	130.6	159.9	162.1	127.3	31.8
Of which: in agriculture	2005	512.5	39.0	74.1	119	155	73.9	51.3
	2015	358.4	30.9	62.7	81.6	87.4	71.8	23.9
	2016	410.9	27.5	76.7	91.0	99.3	85.5	30.9
	2017	390.5	24.9	63.4	89.0	92.7	88.8	31.7

Source: Own calculation based on Statistical Yearbooks of the Republic of Moldova.

In 2005 the employed population in the national economy aged between 25 and 54 was 977 thousand persons (Table 8), and in 2008 it numbered 871.9 thousand persons or 10.8% less.

The number of persons aged 25-54 employed in agriculture decreases from 348.1 thousand persons (35.63% of the total number of employed) in 2005 to 245.1 thousand persons (28.11% of the total employed) in 2015 or about 30 percent.

Among the employed population in the national economy in 2005 dominates the 45-54 age group, (29.1% of the total employed population) in 2015, 2016, 2017 respectively

by 300 thousand (24.9%), 312.6 thousand (25.6%) and 302.1 thousand (25.0%) prevailed in the population aged 25-34 years. The population aged 45-54 was among those employed in agriculture.

The number of those employed in agriculture aged 15-24 decreased continuously from 39.0 thousand persons (7.6% of all employed in agriculture) to 24.9 thousand people (6.37% of the total employed in agriculture) in 2017 or by 36.2%. In 2005, the total number of people aged 60 and over was 60 thousand people, including agriculture 51.3 thousand (85.5% of the total) and in 2017 respectively 48.1 thousand and 31.7 thousand or 65.9%.

After February 15, 1991 when the "Concept of agrarian reform and socio-economic development of the village" was adopted and implemented, there were considerable

changes in the structure of the employed population according to the form of ownership in the national agriculture.

Table 9. Population employed, thousands

		Economic activities	Of which private	Inclusive in rural area	Of which private
2000	total	1,514.6	1,036.1	936.1	748.5
	Agriculture	770.4	717.8	713.3	664.6
2005	Total	1,318.7	918.0	745.1	596.8
	Agriculture	535.5	525.5	512.5	504.6
2010	Total	1,143.4	745.8	695.0	430.3
	Agriculture	314.7	307.7	295.8	290.7
2015	Total	1,203.6	884.5	648.5	505.0
	Agriculture	381.9	376.8	358.4	354.2
2016	Total	1,219.5	923.9	659.7	525.7
	Agriculture	410.9	405.8	384.2	380.1
2017	Total	1,207.5	898.0	657.4	513.7
	Agriculture	390.5	382.9	368.2	363.7

Source: Own calculation based on Statistical Yearbooks [6] of the Republic of Moldova.

Thus, if in 2000 in the economic activities of the private sector 1,036.1 thousand persons were employed (Table 9) or 68.4% of the total number of those engaged in economic activities and agriculture, the private sector constituted 717.8 thousand persons or 93.17%, then in 2017 - 898.0 (74.37%) and 382.9 (98.05%) respectively.

The total number of those employed in rural areas decreases from 936.1 thousand in 2000 to 657.4 thousand in 2017 or 29.78%. In the rural area, the employment of agriculture, hunting and forestry is definitely dominated, the number of which decreases from 713.3 thousand people in 2000 to 368.2 thousand persons in 2015, including in the private sector - from 664.6 to 363.7 thousand people. The share of those working in the private sector of agriculture in rural areas increased

from 93.17% in 2000 to 99.67%.

Spectacular changes have occurred in the ratio of employees, self-employed workers, unpaid family workers and other categories of employed persons. In total, those employed in the national economy dominate the employees even if their number decreases from 830.6 thousand (63% of the total) in 2005 (Table 10) to 787.1 thousand persons (65% of the total) in 2017.

The number of employees in agriculture has decreased from 127.6 in 2005 to 62.9 thousand persons in 2017 or 50.7 per suite. Among the employed in agriculture are self-employed workers whose number amounted to 372.0 thousand (72.6% of the total) in 2005, and in 2017 - to 288.6 thousand persons (77.8% of the total).

Table 10. Population by type of employment, thousands

	2005		2017		2005		2017		2005		2017	
	2005	2017	2005	2017	2005	2017	2005	2017	2005	2017	2005	2017
Total, of which:	1,318.7	1,207.5	830.6	787.1	464.7	370.9	14.6	45.5	8.7	4.1		
In rural area, of which	745.1	657.4	339.6	309.1	391.3	301.4	13.1	45.3	7.0	0.0		
In agriculture	512.5	390.5	127.6	62.9	372.0	288.6	12.8	44.6	1.69	0.0		

Source: Own calculation based on Statistical Yearbooks [6] of the Republic of Moldova.

De facto all unpaid family workers are employed in agriculture. Their number growth

by 3 times from 12.8 thousand people in 2005 to 44.6 thousand people in 2017.

Extending private ownership of the land, organizing peasant farms (farming), increasing the number of self-employed workers in agriculture has caused a significant increase in the number of decision-makers

that requires professional training in the field to ensure their creativity and productivity, which can be achieved through education, which according to Peter Drucker [3, p.76] is "the first of the challenges of our time".

Table 11. Educational level of population, thousands

		2000		2005		2010		2015		2016		2017	
		total	rural										
Total	total	1,514.6	936.1	1,318.7	745.1	1,143.4	605.0	1,203.6	648.3	1,219.5	659.7	1,259.1	675.4
	Agriculture	770.4	713.3	536.5	512.5	314.7	295.8	381.9	358.4	410.4	384.2	390.5	368.2
High	total	180.8	46.7	223.8	47.5	262.8	64.2	294.0	72.4	297.4	71.3	309.0	72.1
	Agro	19.9	15.0	13.7	11.5	12.1	9.1	15.7	12.7	17.0	14.1	15.3	12.5
Middle level	total	216.8	88.2	194.3	72.8	180.2	81.0	170.6	78.0	163.8	75.3	165.9	77.6
	Agro	49.5	41.8	32.4	29.4	24.8	22.0	32.7	29.4	33.1	29.3	32.7	29.9
Professional	total	391.0	226.2	331.2	187.3	272.2	170.3	268.1	164.2	268.5	160.0	289.8	173.2
	Agro	183.3	164.9	129.1	119.2	87.1	81.6	92.8	87.3	96.6	90.6	95.4	90.5
Highschool	total	360.4	255.9	294.9	199.8	236.8	138.8	239.1	143.9	231.0	148.0	244.3	151.6
	Agro	212.4	203.0	158.4	154.7	84.3	80.8	97.6	90.6	106.3	98.4	100.1	94.1
Gymnasium	total	277.7	242.1	235.0	200.5	178.1	143.5	224.8	184.1	242.1	198.7	244.7	195.9
	Agro	223.4	214.7	166.6	161.7	99.6	95.8	137.0	132.6	151.7	145.9	142.5	136.7
Primary	total	87.9	77.1	35.9	37.1	8.3	7.3	7.0	6.3	6.8	6.5	5.4	5.1
	Agro	81.9	73.9	36.4	36.1	6.7	6.5	6.1	5.8	6.1	5.9	4.8	4.5

Source: Own calculation based on Statistical Yearbooks [6] of the Republic of Moldova

The total population with higher education increased, in the Republic of Moldova, from 180.8 thousand in 2000 (Table 11) to 309.0 thousand people in 2017 or by 1.7 times.

The number of those with higher education in the rural area in that period increased by only by 1.5 times. The number of those who got a higher education decreased from 20,000 students in 2000, 25% of which in agriculture (19% of those with higher education) to just 15,300 in 2017 (about 20%). Agriculture of the Republic of Moldova is dominated by

people with gymnasium studies, which represent 36.5% of the total number of those engaged in agriculture.

One of the most important factors influencing people's activity in agriculture is the income of the population. The monthly income of the total population increased by 568.6 lei in 2005 (Table 12) to 2,244.9 lei in 2017 or 3.95 times, and in the environment rural area increased from 519.2 to 1917.0 lei or 3.69 times.

Table 12. Available incomes and subsistence minimum (monthly average / person)

	2005	2010	2015	2016	2017
Income available: - total population. lei	568.6	1,273.7	1,956.6	2,060.2	2,244.9
- rural population. lei	519.2	1,054.7	1,657.5	1,771.3	1,917.0
The subsistence minimum: - total population. Lei	766.1	1,373.4	1,734.1	1,799.2	1,862.4
- rural population. lei	696.9	1,285.2	1,657.7	1,723.4	1,770.5
Revenue available at the minimum subsistence level:	74.2	92.7	112.8	114.5	120.5
- total population.%	74.5	82.1	100.0	102.8	108.3

Source: Own calculation based on Statistical Yearbooks [6] of the Republic of Moldova

The monthly average of the incomes available to the rural population in 2005 was 91.3% of the monthly average of the total population, in 2017 only 85.4%. If the monthly average of the available incomes of the population exceeded the monthly average of the

subsistence minimum in 2013, reaching 120.5% in 2017, then in the rural area in 2015 it equaled, reaching 108.3% in 2017, with 12.2 percentage points less.

CONCLUSIONS

The human potential of the Republic of Moldova is steadily decreasing, as a result of a lot of factors such as negative demographic growth, massive emigration [4] due to economic and social uncertainty, etc.

The share of people enrolled in agriculture out of total national human resources registered slow decrease, but still remains well above the European Union and neighboring countries average.

The level of education of people involved in agriculture is dominated by those with gymnasium and lyceum level [5], often less relevant to the performed activities.

What to do? We consider it appropriate:

- to develop and apply economic and social policies based on local specifics and well as a set of mechanisms and instruments that might contribute to diversification of non-agricultural activities in rural areas. These, later on, must contribute to population natural growth in rural area and in the Republic of Moldova respectively.

- to stop or at least slow down the emigration of our citizens become a myth and we must focus on the development and implementation of methods aiming to return back migrant, particularly the youths, through measures like PARE 1+1, RISP II and other successful programs checked in time with good results within the last 10 years.

- to intensify and make efficient the training of those active and active in national agriculture, which is part of the requirement of the "a" paragraph of Article 123 of the Association Agreement between the Republic of Moldova on the one hand and the European Union and the European Atomic Energy Community and their Member States, of the other part, launched in November 2013, which states that "cooperation will, inter alia, focus on ... promoting lifelong learning, which is the key to growth and jobs and enabling citizens to participate fully in society. " [1]

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