

CHARACTERISTICS OF LABOUR IN THE RURAL AREAS OF SERBIA

KARAKTERIZACIJA POLJOPRIVREDNE RADNE SNAGE U SRBIJI

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Abstract: Labour in agriculture may be analysed from the standpoints of economic structure of the population, its household members' structure and employment structure. According to the 1991 and 2002 censuses agricultural labour in Serbia has declined both absolutely and relatively. Based on the share of the agricultural in the total population (10.9%), i.e. the active agricultural in the total active population (15.6%) Serbia has no shortage of agricultural labour. On the other hand, both the age and education structure of agricultural labour are unfavourable raising the issue of self-reproduction. In addition, the number of household members especially individual farmers representing the key labour in agriculture, has been significantly reduced.

Abstract: Radna snaga u poljoprivredi može se analizirati sa nekoliko različitih grupa parametara: ekonomska struktura stanovništva, struktura članova gazdinstava i struktura zaposlenosti. Radna snaga u poljoprivredi Srbije se, prema rezultatima poslednja dva Popisa (1991. i 2002. godina), smanjuje i apsolutno i relativno. Mereno učešćem poljoprivrednog u ukupnom (10,9%), odnosno aktivno poljoprivrednog u ukupno aktivnom stanovništvu (15,6%) moglo bi se zaključiti da Srbija ne oskudeva u poljoprivrednoj radnoj snazi. Sa druge strane, kvalitativni aspekti radne snage u poljoprivredi, pre svega njihova starosna i obrazovna struktura, su i dalje nepovoljni što dovodi u pitanje njenu samoreprodukciju. Takođe se broj članova porodičnih gazdinstava značajno smanjio i to posebno individualnih poljoprivrednika koji predstavljaju najznačajnije kontigent radne snage u poljoprivredi

Key words: labour, gender, education, age

Ključne reči: radna snaga, pol, obrazovanje, starost

INTRODUCTION

Labour represents the key to the overall development of agriculture. The share of the rural population in the total population of Serbia is substantial (10%) in comparison with both the developed countries (1-2%) and the neighbouring countries. The qualitative aspects of labour in agriculture with regard to both age and education are unfavourable. This may be attributed to the mislead migration trends in the past. The farm reproduction potential has thus been affected even in regions characterised by intensive agricultural production.

MATERIAL AND METHOD

Labour in agriculture may be analysed from the standpoint of the economic structure of the population, household members' and employment structure.

The results of the 1991 and 2002 population censuses, known to offer detailed and precise data with regard to demographic properties of labour in agriculture, were used in order to analyse the characteristics of labour in the agriculture of Serbia with special reference to the economic

structure of the population. These data were also used in the qualitative analysis of labour in agriculture (age and education structure).

Based on the data of the census on agricultural farms, the number and structure of household members were analysed as well.

Both the employment structure and the share of labour in the agriculture of Serbia were analysed as well focusing on the data of the 2004 poll of the Republic Statistical Office.

RESULTS AND DISCUSSION

Economic structure of the population.

The share of the agricultural in the total population of Serbia, a country in transition, is substantial. According to the 2002 census the agricultural population in Serbia amounted to 817 thousand, i.e. 10.9% of the total population. Therefore, the number of farmers declined by approx. 37% contributing to a 6.3% decrease of the share of the agricultural in the total population in comparison with 1991. In 2002 total agricultural labour (active agricultural population) amounted to 529.236, i.e. a 41.5% decline was registered between the two censuses. The share of the active agricultural population in the total active population declined from 24.9 to 15.6%. Based on the share of the agricultural in the total population and the share of the active agricultural population in the total active population it can be concluded that agricultural labour in Serbia suffices. The ratio of the active agricultural population and the financially dependent household members in the total agricultural population amounts to 65:35.

Table 1

Economic structure of the population in Serbia (1991 and 2002)

Year	Total population	Agricultural population		Active population		Share of active agricultural population (%)	
		No.	(%)	Total	Agricultural	Total agricultural	Total active
1991.	7.548.978	1.305.426	17.2	3.622.897	904.127	69.2	24.9
2002.	7.498.001	817.052	10.9	3.398.227	529.236	64.8	15.6
Index (1991=100)	99.3	62.6	-	93.7	58.5	-	-

Source: The authors' calculations based on the 1991 and 2002 Polls on house-holds flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

Despite the often stressed predominance of women in village and rural labour over the past years, the share of women in the total agricultural labour amounted to 47.6 and 42.3% in 1991. and 2002 respectively (Table 2).

The age structure of agricultural labour (Table 3) was unfavourable considering the high share of those over 50. In 1991 and 2002 their share was 61.8% and 50.9% respectively. In addition, the age structure was characterised by a substantially small share of young labour. The share of those between 15-24 years of age declined from 7.2% (1991) to 6.5% (2002). The incidence of senility of the population in rural regions tends to decline its revitalisation potentials.

Table 2.

Structure of active agricultural population according to gender in Serbia (1991 and 2002)

Gender	No. and structure	Year		Index (1991.=100)
		1991	2002	
Male	No.	473.989	305.590	64.4
	(%)	52.4	57.7	-
Female	No.	430.138	223.646	51.9
	(%)	47.6	42.3	-
Total	No.	904.127	529.236	58.5
	(%)	100	100	-

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

Table 3

Structure of active agricultural population according to age in Serbia (1991 and 2002)

Age intervals (years of age)	Years				Index (1991=100)
	1991		2002		
	No.	(%)	No.	(%)	
15-24	64.844	7,2	34.570	6.5	53.3
25-34	85.268	9,4	70.486	13.3	82.7
35-49	191.827	21,2	153.043	28.9	79.8
50-64	357.540	39,5	165.486	31.3	46.3
65 and over	200.979	22,3	102.947	19.6	51.2
Unknown	3.669	0,4	2704	0.4	73.7
Total	904.127	100	529.236	100	58.5

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

The structure of the active agricultural population, i.e. labour according to professional skills points primarily to farmers involved in agricultural production in order to meet own needs (75.1%), workers in agriculture-producers meeting market needs (20.3%) and workers engaged to fulfil tasks requiring physical strength (4.6%). The share of women in the category of agricultural production meeting own needs predominated (46.9%). On the other hand, the share of the male population predominated in the category of agricultural labour engaged for accomplishing tasks requiring physical strength (72.2%).

Table 4

Active agricultural population according to professional skills in Serbia in 2002

Gender	No. and structure	Workers in agriculture – producers for the market	Agricultural producers meeting own needs	Workers in agriculture for jobs requiring physical strength
Male	No.	79.377	208.475	17.738
	(%)	73.9	53.1	72.2
Female	No.	28.030	188.803	6.813
	(%)	26.1	46.9	27.8
Total	No.	107.407	397.278	24.551
	(%)	100	100	100

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

The age structure of agricultural labour according to professional skills was the most favourable in the category of those involved in agricultural activities requiring physical strength. On the other hand, it was the most unfavourable in the category of agricultural producers (comprised of farmers over 50 years of age) meeting own needs (Table 5).

Table 5

Active agricultural population according to professional skills and age in Serbia in 2002

Age intervals	Workers in agriculture – producers meeting market needs		Agricultural producers meeting own needs		Workers in agriculture for jobs requiring physical strength	
	No.	(%)	No.	(%)	No.	(%)
15-24	5.593	5.2	26.489	6.7	2.224	9.1
25-34	15.338	14.3	50.260	12.7	4.888	19.8
35-49	32.699	30.4	109.596	27.6	10.748	43.8
50-64	32.658	30.4	126.925	31.9	6.003	24.5
65 and over	20.590	19.2	81.824	20.6	533	2.2
Unknown	529	0.5	2.020	0.5	155	0.6
Total	107.407	100	397.278	100	24.551	100

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office, Serbia, Belgrade

Table 6

Active agricultural population according to professional skills and education in Serbia in 2002

Level of education	Workers in agriculture – producers meeting market needs		Agricultural producers meeting own needs		Workers in agriculture for jobs requiring physical strength	
	No.	(%)	No.	(%)	No.	(%)
Illiterate	4.205	3,9	26897	6,8	1310	5,3
Primary school, incomplete	40.468	37,7	176.932	44,5	6.163	25,2
Primary school	39.237	36,6	149.301	37,6	11.224	45,7
Secondary school	21.353	19,9	39.075	9,8	5.167	21,0
Higher education (2 yrs)	679	0,6	1.202	0,3	163	0,7
Higher education (4 yrs)	435	0,4	675	0,2	139	0,6
Unknown	1.030	0,9	3.196	0,8	385	1,5
Total	107.407	100	397.278	100	24.551	100

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

An unfavourable education structure characterises agricultural labour in Serbia as well. A part of agricultural labour was found to be illiterate and a high percentage had attended primary school only (Table 6). On the other hand, the share of those with higher education was small. Agricultural producers involved in agriculture in order to meet own needs were characterised by the most unfavourable education structure. More than 50% of them were illiterate. Workers in agriculture performing tasks requiring physical strength were characterised by the most favourable education structure. The share of those with the higher education was the highest. This may be attributed to the high unemployment rate, job cuttings and smaller chances to find jobs beyond agriculture.

Structure of household members

Family farms play the key role in the agriculture of Serbia with regard to both significance and number. In 2002 the number of family farms amounted to 778891, i.e. it declined by 21.9% in comparison with 1991. During the period 1991-2002 the total number of household members in Serbia declined from 3.56 to 2.54 million, i.e. by 28.7%. The greatest number of household members in Serbia was registered on non-agricultural farms, i.e. 58.6%. The share of household members of agricultural farms and mixed farms in the total number of household members of farms accounts for 16.8% and 22.7% respectively.

Table 7

Household members of different farm categories depending on income source in Serbia (1991 and 2002)

Farms according to income source	1991		2002		Index (1991=100)
	No.	%	No.	%	
Serbia					
Total	3.557.867	100.0	2.536378	100.0	71.3
Agricultural	731.138	20.5	427307	16.8	58.4
Mixed	1.218.013	34.2	575.008	22.7	47.2
Non-agricultural	1.587.711	44.6	1.486.500	58.6	93.6
Without income	21.005	0.6	47.563	1.9	226.4

Source: The authors' calculations based on the 1991 and 2002 Polls on households, flats and farms, Federal Statistical Office and Republic Statistical Office of Serbia, Belgrade

Based on the structure of household members according to activities (Table 8) the conclusion which tends to emerge is the substantially reduced number of individual farmers. In fact, the number of individual farmers playing the key role in the Serbian agriculture and being the active agricultural population on farms was noted to have decline by 44.3% over the period (from 816200 in 1991 to 454732 in 2002).

Table 8

Household members according to activities in Serbia in 1991 and 2002

Year	Total household members	Individual farmers		Active off-farm		Members with personal income		Supported	
		No.	%	No.	%	No.	%	No.	%
1991	3.557.867	816.200	22.9	799.926	22.5	354.484	10.0	1.289.369	36.2
2002	2.536.378	454.732	17.9	705.070	27.8	526.232	20.7	845.238	33.3
Index 1991=100	71.3	55.7		88.1		148.5		65.6	

^{*)} Note: The difference up to 100.0% of the total number of household members for some regions presents the share of the household members abroad up to 1 year.

Individual farmers: active agricultural population involved in agriculture on its own farm or the farm of its family.

Active off-farm household members: all active persons involved in activities off-farm including active persons who are farmers but employed off-farm or off-family farm.

Household members with personal income: persons who earn their own wages having regular incomes: pension, income from the estate, social aid and other permanent incomes.

Supported household members: persons without personal income, including persons with insufficient incomes supported by parents and other persons or legal persons. Persons financially supported by persons abroad at the time of the poll conducted are included.

Household members temporarily working abroad: citizens of Yugoslavia, Serbia and Montenegro, working at the time of the poll temporarily abroad having foreign employers or as private entrepreneurs.

Individual farmers representing the most important part of agricultural labour in Serbia were analysed from the standpoint of age structure.

Table 9

Individual farmers according to age and regions in Serbia in 2002

Regions	Age intervals			
	15-24 yrs	25-49 yrs	50-64 yrs	65 and over
Serbia total	5.4	37.7	33.4	23.1
Central Serbia	5,6	37,4	33,5	22,9
Vojvodina	4,6	38,7	32,6	23,8

Note: The difference up to 100% of the total number of individual farmers is people of unknown age.

Source: Authors' calculations based on the Documents of the Statistical Office of the Republic of Serbia

The ageing of the population took hold of all the Serbian rural and agricultural regions. The utilization of capacities at disposal on farms of aged farmers is insufficient. This has an unfavourable impact on the development of agricultural production and rural regions. Aged farms are incapable of self-reproduction and, eventually, they die off which further leads to void rural areas in Serbia.

Employment structure

In the structure of the total population employed in Serbia, the share of workers in agriculture, forestry and water management was high amounting to 23.2%. Over the past five years the share of these workers has declined. Therefore, it can be concluded that approx. 45% of the employed rural population had focused their interest on agricultural activities.

CONCLUSIONS

Based on the share of the agricultural in the total population (10.9%), i.e. the active agricultural in the total active population (15,6%) there is no agricultural labour shortage in Serbia. However, considering the share of those over 50 years of age (50%) the quality of agricultural labour despite some improvements was still found unfavourable. In Serbia the rural regions, including the most developed, are characterised by the ageing of the population. The share of individual farmers over 50 accounts for 55%. The education structure of the agricultural labour is unfavourable as well. Most are illiterate or with incomplete primary school. The percentage of agricultural labour having completed primary school is significant. The share of those with higher education is small. In Serbia the share of the employed agricultural population in the structure of the total employed population accounts for 23%.

Table 10

Number and structure of employees in Serbia

	Serbia	Rural regions	Serbia	Rural regions
Total	2.733.412	1.250.660	100	100
Agriculture, forestry and water management	635.363	561.302	23.24	44.88
Fisheries	2.091	1.075	0.08	0.09
Ore and stone excavation	32.965	16.263	1.21	1.30
Processing industry	497.436	203.847	18.20	16.30
Electrical energy, gas and water production	57.000	19.474	2.09	1.56
Civil engineering	166.534	72.512	6.09	5.80
Retail and wholesale, mending and repairing	406.705	128.059	14.88	10.24
Hotels and restaurants	80.010	23.574	2.93	1.88
Traffic, storage and telecommunications	152.820	49.930	5.59	3.99
Financial transactions	43.504	5.386	1.59	0.43
Real estate, leasing	69.826	10.471	2.55	0.84
Governmental institutions and social security	159.430	39.550	5.83	3.16
Education	143.416	39.064	5.25	3.12
Health and social security	158.571	43.401	5.80	3.47
Public, social and other service	120.761	35.321	4.42	2.82
Households with employed persons	5.356	1.432	0.20	0.11
Extra-territorial organizations and bodies	1.624	0	0.06	0.00

Source: 2004 Poll on Labour

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