Employment in agriculture: scales and factors in the dynamics of the 1990-2003

Bogdanovsky V.A. Head of Department, Russian research institute of economics, labour and management in Agriculture

Institutional reforms of the last decade of the former century led to radical changes in the structure and the level of the rural population employment. Moreover, the very landscape of the rural employment has drastically changed. In the course of agrarian reform, with the dissolution of large-scale collective enterprises, which embraced ten-million employees, there appeared in outline in the horizon the employment in the individual farms sector, and especially – the one of household plots.

The actual research aims to evaluate the scale and consequences of the changes on the rural labor market and to propose future policy recommendations.

The research is devoted to verifications of the following hypotheses:

- elasticity of the employment in agriculture in comparison to the other production factors and agricultural output during the transformation period was low;
- low elasticity was motivated by a restricted possibilities for alternative employment in rural areas, narrowing of labor demand in urban areas, underdevelopment of the dwelling houses market, as well as low quality of the very rural labor force, which limits its competitiveness in other labor markets;
- diversification of types and forms of agricultural employment, the diminishing in working time as well as a significant fall in labor remuneration prove to be the main factors, which maintains the equilibrium on the agrarian labor market;
- labor plays the most important role in the production function, and the output elasticity of the salary in agricultural enterprises proves to be the highest among the others;
- in the newly formed structure of agricultural employment the higher level of the efficiency of labor use as well as of labor productivity are retained for new legal forms of large-scale enterprises.

Conceptually, the research is based on the theory of effective employment, focused on profit maximization, resulted in the development of human capital. But in the current Russian situation, transition to the effective employment in agriculture has significant limitations. These are both the scales of the economically expedient working place establishment and to the quality labor force. That's why, in the economy in transition and in the situation of crisis losses a combination of the effective employment and various forms of the socially conditioned employment is required. This combination could be determined as the "the rational employment". To fulfill a rational employment social, economic and organizational means are required, which could put together in the process of production the qualitatively adequate labor force and the working places.

The main methods of research used in the study were: the index method in the course of analyzing of the dynamics, the econometric method of evaluation of changes of the numbers of the employed and the role of labor in the production function.

The informational basis consists of the official statistical data and ministerial and departmental information, the Basis project survey, the author's data received within the different research projects.

1. Quantity of employment

In the course of scientific discussions and, partly, in the real economic situation in the labor market a big attention is being paid to an allegedly formed during the 90-s situation of spreading in the agriculture of incomplete employment. Defining of its scale and evaluation of its consequences in respect of various economic sectors is one of the important conditions of the elaborating of adequate measures of labor market support in the agrarian sector.

The dynamics of the employment in agriculture during the period from 1990 are in the whole within the frames of the general picture of narrowing the spheres of employment in the country (Figure 1).

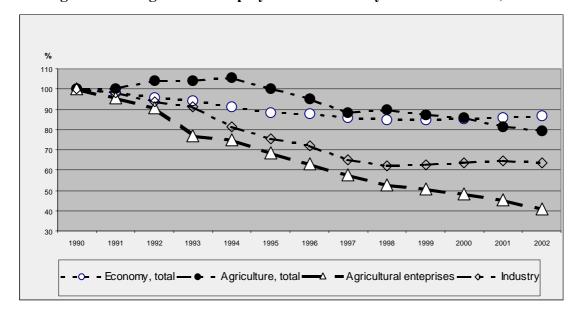


Figure 1. Changes of the employment in economy and its branches, 1990=100%

Sources: Statistical Yearbook of the RF, 2001, 2003 Consolidated Annual Report of large-scale agricultural enterprises, Ministry of the Agriculture of the RF, 1990-2002.

It can be viewed through the fact that the employment in agriculture by 2002 decreased more or less at the same degree in the whole economy. But there are differences at the same time. Until 1995 the employment in the agrarian sector contrary to the whole economy did not fall; more over in 1992-1994 it was notably increased.

Quite probably, it can be connected with the raise of the agricultural activity of household plots, especially, in the urban area. So, the numbers of household plots to the year 1995 increased by 1.6 times and their lands in use respectively by 2.5 times. This process was supported with an increased immigration to Russia from abroad. It reached its peaks in 1994 (810.0 thousand persons), and in 1994 (502.2 thousand persons).

The reaction of the agrarian sector to the 1998 crisis was also different: it interrupted the trend of the reduction of employment only for that year. Further on, the reduction of the quantity of the employed was with an average rate of 2.6% annually. Meanwhile, in the whole economy there was noticeable a stable and accelerating process of the raise of employment.

The dynamics of the quantity of the employed by single branches of the agrarian sector differed notably. Similar to the industry and building, the decrease in the number of employment was observed only on the large-scale agricultural enterprises, – sovkhozes and kolkhozes. The reduction of employees here reached 5.6 mln. persons that equals almost 2.4 times. That means that there occurred a large scale and stipulated by the crises situation re-

distribution of the labor force from collective agricultural enterprises to, first of all, private household plots.

The workers of large-scale agricultural enterprises contributed mainly both to the creation of a new sector in agriculture, i.e. individual farm sector, and to in the increase in the contingency of the rural unemployed numbering 1.8 mln. persons in 2002. There is a diversification of employment, but within the frames of the agriculture. Calculations on the basis of some indirect data are evidencing that the individual private sector presented with household plots and individual farms matched agricultural enterprises in numbers of the employed in 2002 and probably can even overcome them. The basis of the assertion is a stable tendency of the loss of workers by the large-scale enterprises, from one side, and a certain stabilizing of their quantity past 1998 in market oriented household plots and individual farms, from the other side (Figure 2).

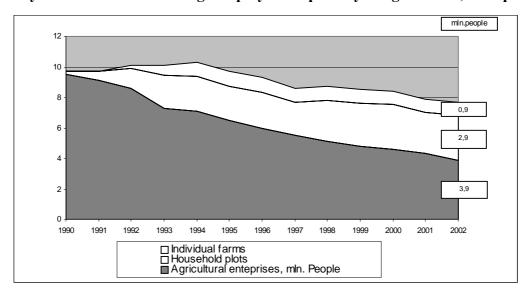


Figure 2. Dynamics of annual average employment quantity in agriculture, mln. persons

Source: author's calculations on the basis of the Goskomstat of the RF and the Ministry of the Agriculture of the RF data.

Apart from above mentioned the categories of the employed in agriculture there is even more numerical army of the population involved into agricultural activity. According to the data of surveys on the population employment problems by the Goskomstat (they don't equal the annual average quantity of the population), the total number of the employed in both market oriented (commercial) and subsidiary household plots consists of 27.2 mln. persons. About 3.5 mln. people of them are involved in commercial production and 23.7 millions of the rural and urban population are involved in subsidiary production for own consumption. At that for 10.6 mln. persons or 44.7% of these latter the work in the household plots is the main and the only type of the employment.

The time they spend for agricultural production taking into account the working time of the officially employed in agriculture equals 1/5 of the aggregate working time of the population of the country.

But these rather impressive data are, quite probably, underestimated. The number of employed in private household plots cannot be less than 40.0 million of people. There are 15.9 mln. of household plots only in rural areas, to which there is to add 19.0 mln. of summer season and vegetable gardens of urban citizens. The effective working time data can be much bigger due to the fact that beyond the frames of extracts for surveys on the employment problems of the population are left the youth younger 15 years old and the elder 72 years

persons. Their input in the working activity of private household plots, according to our data, reaches 10-12% of the total output.

2. Factors of the labor force movements

There are a lot of factors defining the narrowing of the labor market in agriculture. Among the factors, which mainly affect labor demand in the situation of the economic recession, and form a certain aggregate working place, the following were taken into consideration as variables: arable land, number of livestock and poultry population, energy capacities. Among the factors, which characterize the offer of labor force, population and the wage payment were taken into consideration.

Though the changes in the population during the period under examination were very insignificant, it is, probably, that in the economy of transition the dynamic of the population, is probably a restrictive factor, which limits the rate of decrease in the number of employed. The observed recession of factors of demand and offer of labor in 1990 – 2002 (leaving aside the population quantity) contributes to the reduction of the employed in large-scale agricultural enterprises (see Figure 3). Figure 3 indicates that the very reduction in labor cost in agricultural production (wage in agriculture to its average level in economy ratio) by the final result of changes in 2002 is more than other factors corresponding to the reduction of the number of workers in the large-scale enterprises.

110 100 90 80 70 60 50 40 30 20 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 Annual average number of the employed Rural population, N Wage payment index Arable land Livestock and poultry number Energy powers

Figure 3. Factors of changes in number of workers in large-scale agricultural enterprises.

Source: author's calculations on the basis of the Goskomstat of the RF and the Ministry of the Agriculture of the RF data.

Attempts to econometrically estimate this process on the basis of a multiple regression failed due to, quite probably, a shortage of a time series data. Statistically significant appeared (with the correctly expected signs) only factors of wages and population.

The reduction of the workers number in the large-scale agricultural enterprises during the period of 1990-2002 differed greatly by types of workers. Thus, the total number of employed in agricultural production reduced by 57%, while those involved in cattle breeding - by 70%; and those in management have shortened only by 41%. The number employed in non-agricultural activities in large scale agricultural enterprises also reduced by 70% in this case, it is not connected with the recession in the agricultural production, but it was stipulated with the assignation by enterprises of social infrastructure objects to the municipal property, that

was one of the tasks of the agricultural production reforming by its the releasing from unusual functions.

A very tight and almost direct connection has been retracing in the reduction between the number tractor drivers and the number of tractors (by 38% and 40% correspondingly, from 1995 till 2002). In the pair of "quantity of dairymaids and head of livestock number' the connection is less tight and not so obvious for. Reduction in the number of dairymaids for the same period was less significantly compared to the one in head livestock (cows) number (by 37% and 47%, respectively). An explanation of this diversity can probably be found in a higher competitiveness of tractor drivers in comparison with dairymaids in other labor markets. That's why, retirement of a tractor, as a working place practically automatically means a discharge of tractor driver, the representative of the most qualified part of the working personnel.

The quantity of the employed in individual farms is quite a stable one. In 1994 it reached 900 thousand people and remains within the same frames up to mow, with slight fluctuations during some years. We are inclined to presume that the farming has exhausted its human potential in the current economic situation. In the course of sociological surveys in 1989-1993 we have already determined the parameters of individual farming, which lays within the frames of 5% of the total number of employed in agriculture and serving branches of agriculture.

The increase in rotation in labor force recently became a characteristic feature both of the agriculture and the whole economy. That is, the share of the hired workers was monotonously growing from 13% of the listed quantity of the employed in 1995 up to 30% in 2002. The share of the discharged workers for the same period grew up from 19% to 35%. This can be observed despite the fact that one third of the engaged in the agrarian sector are not the hired workers that is stipulated by spreading of cooperative forms of management among large-scale agricultural enterprises, as well as family management – among small-scale forms of agricultural production.

But the underemployment coupled with the extremely low profitability of labor makes workers to apply for discharge of their own free will. The share of such workers is instantly growing among the number of discharging workers - from 75% in 1995 to 82% in 2002.

3. Qualitative composition of labor force

The Russian agriculture, is mainly the "masculine" by its gender indicator (60% of males in agriculture against 51% in the whole economy). The most characteristic feature of the age structure of agricultural workers is the lesser share of youth and the bigger – the share of the elderly. As a whole the average age of the employed in agriculture is two years elder than that in economy in the whole.

At the level of education the agriculture is lagging behind all other branches of the economy. The most vulnerable places are, on the one side, the higher education and, on the other side, secondary basic and the primary education. The share of the workers with a higher education (both with the completed and uncompleted) in the agrarian sector is by 19 per cent points less than the analogous indicator for the whole economy (6.9% against 25.9%). The share of the workers with a low education, on the contrary, in the agriculture overcomes the average all-Russia level. For the general education the proportion between the agrarian sector and the whole economy equals to 19.6% against 6.6%, and for the primary education -4.0% against 0.8%.

For recent years the basic changes are taking place at the foot and the top of educational pyramid, if to look through dynamics: the share of workers with a higher completed and uncompleted education is raising (from 6.5% in 1995 to 6.9% in 2002), whiles the share of those with the primary education is reducing (from 6.6% up to 4.0%).

But a certain increase in the share of workers with the higher education has not yet found its realization in an increase in the level education of the top managers of large-scale agricultural enterprises. Obviously, the work in the capacity of top managers and guiding specialists of the large-scale enterprises for one part of persons with the higher education is not attractive, and for the other part of them it is beyond their powers in the current extremely complicated situation of management. As the result, the share of top managers of the large-scale enterprises with the higher education reduced from 86% in 1991 up to 69% in 2002, and the share of experts increased almost in 5 times (from 1.4% up to 6.7%). The actual age structure of the managers shows that the share of youth reduced in two times (from 4% till 2%), and almost doubled the specific share of pensioners (from 3% till 6%).

Almost the same situation is observed in the qualitative composition of the labor force, especially in the livestock breeding. The share of the first and second grade workers reduced in this sector of agriculture from 25% in 1996 up to 21.6% in 2001. The biggest losses suffered dairymaids: among them the share of attested to the first and the second grade shortened during the same period from 37.4% till 30.1%.

Taking into account conditions under which the individual farm sector was formed – that time "in the farmers" were coming mainly specialists and the skilled mechanization experts and livestock breeders from large-scale agricultural enterprises - the qualitative composition of the labor force in this part of the agrarian sector is better. According to our surveys data, the share of the highly educated people among individual farmers exceeds 20%, and that of the persons with special secondary education is within the limits of 30-35%.

4. Labor demand, working hours

The labor provision of agricultural production oscillates according the structure of the agricultural production. According to research carried out within the "BASIS" project, the main individual farms and household plots practically do not face the problem of labor force provision. Large-scale agricultural enterprises show quite another matter. The all-Russia tendency of the labor provision reduction is here being confirmed completely. According to the survey's data, more than one third of large-scale enterprises are suffering the lack of permanent workers and every fifth enterprise - the lack of seasonal workers. At the same time, more than 10% of large-scale agricultural enterprises are keeping an excessive manpower. These average figures highly oscillate by regions. For example, 60% of large-scale enterprises of the Ivanovo oblast suffer the lack of permanent workers, 55.3 % of those in the Nizhny-Novgorod oblast, and only 17.4% in the Rostov oblast.

The comparative study of large-scale enterprises with different labor provision evidences significant divergences in the provision as well as in the use of main production factors. The most impressive are: the differences in economic incentives. In particular, the share of payments in kind in the labor sufficient large-scale enterprises two times exceeds and delay in wage payments is one month less (or one third less) that one in the large-scale enterprises with labor force in deficit. But a special attention should be paid to the fact that in this group of enterprises the duration of the working year by 4,6% (or by 93 hours) exceeds the normative level.

At the same time the labor deficit large-scale enterprises do not completely use the available workers (the working year there is shorter on 20 hours, or by 1%).

Among the reasons that impede the making-up deficiency in labor force, according to estimations of the top managers of the large-scale agricultural enterprises, there are two dominating, namely: high level of the alternative wage payment (2/3 of answers) and the absence of the market of dwelling facilities (50% of the answers).

The excessive working power is not a subject of a reduction or discharge in enterprises due to a number of reasons: in 70% of cases because of inevitable worsening of the life standard of families of discharged workers, in 49% of cases because of the seasonal character of production, in 35% of cases because of a possible increase of theft, pilfering and hard drinking and worsening of the criminal situation in the village.

There can now and could recently be met in periodicals and in the scientific publications, as well as in statements of politicians affirmations that an excessive quantity of workers is a characteristic feature of the employment in agricultural enterprises. And it did correspond to realities. On the 25% falling of production in 1991- 1992 the working power reacted with only 10% discharge. This gap remained till 1998, having some fluctuations during some years. Later on, there started their accelerating bringing together for the account both of raising production and going on discharging of the quantity of workers. In 2001 these two processes met each other (approximately in the point of 45% as of 1990), and now it is already time to talk not about an excessiveness, but about the beginning of deficiency of the working power in the current terms of its use, or about the raise in labor productivity of large-scale agricultural enterprises.

It can be stated with a higher grade of insurance that the zone of incomplete employment has formed in the individual private sector. In the farming and market oriented household plots the working year is hardly reaching 55% of the working year of the employed in agricultural enterprises, and, according to the Goskomstat data, in the subsidiary household plots is only 40%. Such big differences are stipulated with small sizes of production where the crop production dominates inevitably resulting in the seasonal character of labor. It is especially evident for subsidiary household plots.

5. Wage payment

In 1990 the situation with wage payment in agriculture (as agricultural enterprises are concerned) reached its "hour of triumph": its monthly average nominal value consisted of 95.4% of the monthly average in economy and almost 93% of the level of the industry.

Then a stable tendency of the lag and by 2002 the wages in large-scale agricultural enterprises fell down to 40% of the wage level of total economy and to 35% - in the industry. The wages in agriculture became the lowest among the other sectors of the economy. Even in the social sphere that was for a long time the last in this ranging row the wages were 1,5 times higher. The lag from other spheres of employment was sequent to ten time's higher level. In this context that what happened in agricultural enterprises appears absolutely paradoxical: wages of permanent workers of the main activity –agricultural production, was reduced below the wages of workers of non-agricultural activity by 12.2%. It appears that even in these large-scale agricultural enterprises the very agricultural labor became cheaper than the non-agricultural labor. There is nothing like this in countries with developed market economy, where the inter-sectorial differences in labor cost are on a rather equal footing and are significantly less in the whole.

This problem becomes even more evident on comparison of the main parameters of employment of the "purely" agricultural family with the family all members of which are employed and engaged in social sphere. These types of families are equal in the number of members, including those employed, they are close to each other in their composition, and the

volume of the income they have almost the same. But the aggregate working intensity in the agricultural family is 7% higher, while profitability of one working hour in public sector of economy is 1.4 times higher than the same in the social sphere (Table 1).

Table 1. Comparison of the labor cost and its productivity between agricultural and non-agricultural types of rural families

Index of employment and productivity of labor	Types family employment		
	LSAE	Social sphere	
Labor family expenditures in official sector of economy and in LPH, people- hour per year	4104	3881	
In official sector of economy, including., %	65.2	72.1	
Family income in official sector of economy and in LPH, thou rubles per year	55.0	54.4	
Official sector of economy, including, %	51.6	77.9	
One working hour profitability			
In official sector of economy	10.6	14.8	
In LPH	18.6	11.1	

Source: calculation of author of the basis of data of families survey in Luhskij district of the Ivanovo region, 2004. 179 private household plots and 347 persons were questioned in the category of "the employed" on the quarter- proportional extraction.

Meanwhile, yet recently the situation with wages in these sectors of employment was different, as it was mentioned above. But since 1999 the real wages started to grow by 25% annually in the social sphere (education and public health care), while in agriculture the annual rates of growth was only 18%. And this lag is broadening. The improvement of the situation in the social sphere one could see the increasing role of political activity in defending the interests of those employed in it. The agricultural workers due to the known peculiarities of agricultural production, as well as to the organizational and political weakness are limited in likewise actions.

Labor remuneration in large-scale agricultural enterprises, failed to fulfill its reproductive function at a proper way in conditions of the existing labor market in rural areas, which is actually a monopsonic one being measured mainly with the capacity of the agrarian production; however still plays a significant role as a production factor. It is confirmed, in particular, by calculating the Cobb-Douglas productive function, using the most meaningful production factors (Table 2).

Table 2. Large-scale agricultural enterprises: Cobb-Douglas production function (gross agricultural output)

	Equation coefficients		
	M1	M2	
Gross output, thousand rubles (dependent variable)	2.095	2.894	
2. Wage, thousand rubles	0.530	X	
3. Annual average workers quantity, number of people	X	0.707	
4. Arable lands square, thousand hectares	0.111	0.089#	
5. Agricultural production assets, thousand rubles.	0.090	0.095	
6. Expenditures for inputs purchasing, thusand rubles	0.158	0.140	
Coefficient of determination, R ²	0.659	0.649	

Source: Calculated on survey data in Ivanovo, Nizhny-Novgorod and Rostov Oblasts, 2001; LSQ method of estimation; logarithmic variables, N=120, All coefficients are significantly meaningful at 10%, except coefficient marked #.

Analyze of the regression equation presented in model M1 shows that the wage is the most significant factor. Its increase by 1% ensures increase of the GAO by 0.53%. The influence of the second meaning factor (input expenditure) proves to be 3,3 times lesser. Even lesser in the model M1 is the meaning of such variables as land and production assets.

A more high co-efficient of variable labor (in comparison with other factors) indicates the understating the costs of the labor force. This tendency is even more evident for the second model (M2) of production function, where the factor of labor is expressed as the annual average number of workers. Taking into account the extremely low wage level, it cannot be interpreted as it's inside the branch underestimate. To understand the scale of this phenomenon it is possible looking at the meaning of marginal labor product. The calculation of marginal labor product shows that the charged wage in the surveyed large-scale agricultural enterprises is, in average, 4 times underestimated (Table 3).

Table 3. Marginal return of labor: large-scale enterprises

In average for one enterprise				Annual avarage charged
Value of gross output, thousand rubles	Number of workers			Annual average charged wage per one worker, thousand rubles
8656.5	125	69.5	49.0	11.9

Source: Own calculation on the basis of M2 function, see Table 2

In fact, this difference is less evident, especially in the Rostov oblast large-scale enterprises, where the increasing effect of payments in kind can be rather significant. A series of subsidized services that are granted to the workers of enterprises are to be included here on their economic sense they represent the costs of labor.

But despite the above-mentioned additional costs of labor (let it be doubled), the underestimate of the wage (labor remuneration) yet takes place. The negative consequences of it are obvious: large-scale agricultural enterprises that suffer labor deficit appear to be non-competitive on the rural market of labor even for the jobless people. There are losses in those large-scale enterprises that are still maintaining sufficient number of workers. The low level of wages of these enterprises negatively affects the economic component of labor motivation and, as a result, the labor productivity. The labor motivation is shifted towards household plots.

The labor in household plots, which involves, through various channels, often on the basis of non-equivalent economic relations, different inputs from large-scale enterprises for its own production, in conditions of an actual "freedom of taxes" of household plots, in many cases began to significantly overcome the incomes, the workers of large-scale enterprises get. It is confirmed with data of Table 1 and also by the more wide-scale sociological surveys conducted by the author in 1997- 2001 in loss-making and low profitable large-scale agricultural enterprises of Tambov, Oriel, Saratov and Moscow oblasts. In those enterprises 54% of the aggregate income of the family came from household plots and only 36% came from wage labor. In those enterprises, which had average and even higher profitability the wage consists of more than a half of the aggregate income of the workers' families (58%), but the income of the household plots has already reached 36%.

As a result, it was formed in the general mass of the large-scale agricultural enterprises the motivation of natural economy, the organizational, economic and social center of which became the family household plot of the worker. There is not a hint of the labor behavior that should be in market economy.

But it is observed in agricultural enterprises that had a high level of social-economic development before the beginning of the reforms. They succeeded in maintaining and even developing of their productive and labor potential and use preferences of less regulated sector of the economy. Certain features of market oriented wage labor characterize labor motivation of the main part of workers of these enterprises. Firstly, the important role that monetary payments occupy in whole wages in this group of large-scale enterprises evidences the

developed level of mechanism of exchange between demand and offer of labor force. Secondly, working places for these enterprises are creating as economically useful and providing effective forms of employment. Both the first and the second approach for labor organization remain unreachable for the general mass of the agricultural enterprises.

6. Factors explaining effectiveness of labor

With the account of the data available, the effectiveness of labor is possible to calculate only on the example of large-scale agricultural enterprises.

Reduction of the labor productivity in large-scale agricultural enterprises till 1998 was determined first of all by the fall in production, and was slow down by the reduction of the number of workers. After 1998, reduction of the labor productivity reversed into growth in productivity that was connected with a contemplated increase in agricultural production. The increase in production was strengthened by the prolonged decrease in a number of employed workers. As a result, the productivity of labor in 2002 even slightly overcame (by 3%) the level of 1990; while the recession of production for the same period amounted to 56% and the fall in employment respectively to 59%.

The econometric estimation of labor productivity factors was done on the basis of the gross income per average annual worker indicator. Like in the case of the production function calculation, the wage is dominating here (see Table 4). Labor motivation factors resulted to be positively correlated with labor productivity and negatively correlated with labor wage arrears (delay). The hypothesis of a positive correlation of the manpower quality was proved. The negative results of factors of the head livestock and the energy powers were expected and quite obvious, since the cattle-breeding remains as before the low profitable branch and agricultural techniques and equipment are far from their optimum structure and are depreciated.

Table 4. Estimation of factors of the labor productivity in agricultural enterprises, $(N=57, R^{2}=0.604)$

Indices	Equation co-efficient
1. Gross output per average annual worker, thousand rubles	- 1,434
2. Arable land, thousand hectares	- 0,048
3. Livestock and poultry breeding, thousand heads	- 0,315
4. Energy power, thousand <i>hp</i> .	- 0,316
5. Wage payment, thousand rubles.	1,167
6. Delay in wages, months	- 0,053
7. Share of the 1-st and 2-d grade specialists, %	0,015

Source: Calculated on survey data in Ivanovo, Nizhny-Novgorod and Rostov Oblasts, 2001; LSQ method of estimation; logarithmic variables (exclude. Variable 6 and 7), All coefficients are significantly meaningful at 10%, except coefficient concerning arable land.

The comparative analyzes of the labor effectiveness in various branches of the agrarian economy is an old methodological problem that is tied up with an insufficient attention paid to the situation in the individual sector. The available disseminated information is providing for only approximated estimations. The received results are quite explicable ones (Table 5).

Table 5. Productivity of labor, by types of enterprises, 2002.

Category of enterprise	Gross output,	Cost of labor		Gross output rub	
	Mln. rubles	mln working hours	mln working days	Working hours	Working days
Large-scale agricultural enterprises	409937	7385	1019	55,5	402,3

Individual private farms	38164	X	129	40,8	295,8
Household plots	581154	34815	X	16,7	X

Source: calculation on the Goskomstat of the RF and the Ministry of the Agriculture of the RF data

From all typed of household plots only the market oriented ones can be comparable with large-scale agricultural enterprises and individual farms on the efficiency of labor. The share of commercial household plots accounts for 10-11% of total number of household plots, according to our estimate. It means that of total number of 15 mln. household plots only 1.5-1.7 mln. household plots are considered to be commercial, with a rather big for them level of output. These private household plots of population are different as well from that other 19mln. country-cottages and kitchen-gardens the majority of which have too limited land sizes and are too distant from the place of family location for commodity production. And their main function is different: Rest, relaxation, moderate physical load – that are rather important things for many urban citizens.

7. Recommendations

Rural areas give low possibilities for alternative forms of employment, for labor mobility of population and is characterized by organizational and political weakness of rural population. These factors provided for realization in respect of agriculture a specific Russian model of forming out the labor market that consists of such features as detention of growing unemployment by the reduction of working hours and wage payment. This situation resulted in overflow of labor force from large-scale enterprises to subsidiary and semi-commercial household plots.

Consequently, in agriculture the excessive manpower, the marginal underestimation of the wage payment, incomplete employment (first of all, through the existence of subsidiary household plots) are spread more wide thus having the opportunity to reproduce the economic poverty, when one being employed cannot provide suitable economic well-being of one's family. But this mechanism could neither stop the raise of unemployment that was higher than the urban one's and reached 10.4% (in urban area-7.6%) in 2003.

In this situation the more appropriate political decisions could be the following:

- increasing of agricultural labor cost (profitability) till the level of not less then the
 minimum living standard, through the overcoming of disproportions among the branches
 of the economy and use of internal resources of the agrarian sector, support of
 employment in household plots and their involvement in market relations;
- development of rational forms of employment including demand on advisable working places from the side of the manpower with capabilities, interests and motivation to a highly productive labor in combination with support of a socially conditioned employment for workers with low labor abilities and motivation;
- increasing of professional capabilities and productive force of the human capital till the level of demands of effective employment, including retraining of discharging working power;
- expanding in rural areas of non-agricultural activity on the basis of restoration and development of the social sphere, development of small and medium size business by the way of strengthening crediting, financial and tax support, liberalization of organizational and juridical basis of its creation and functioning;
- improvement of the fulfillment and expanding functions of the state service of employment in the field of information of the market subjects about vacancies and offers

of employment, taking into account and material support of rural unemployed, about organization and financing retraining and refreshment courses, maintenance of the manpower mobility, its involvement in the execution of public works;

- extending on the employed in subsidiary household plots (in case there is the main or a single work for people) the status of "the employed in the economy" in respect of the pension assistance, registration of unemployment and other kinds of the social protection;
- increasing in political activity of the agrarian population in promotion and protection of its interests.