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## **THE SYSTEM OF INDICATORS OF THE REGIONAL BALANCE OF LABOR RESOURCES**

### **Abstract**

The article examines the issues of improving the system of recording employment and human resources. The technique of drawing the balance of labor resources on basis of international standards is given. There was developed the scheme of the regional balance of labor resources. The order of creating of labor balance resources of the region and its basic indicators characterizing availability of labor resources and their distribution was stated. The calculations of main indicators of balance of labor resources are given. The size of labor force depends on the population, reproduction, composition by sex and age. The major part of region's labor resources is working-age population, as adolescents and persons of retirement who are able to work. It's necessary to distinguish people who actually participate in material production or non-productive sphere economically active population. The balance of labor resources is an integral part of balance of national economy, characterizing reproduction of labor. It reflects a number of labor resources and their qualitative composition (by sex, age, social groups, types of employment, branches of the national economy and occupations). The balance of labor resources makes it possible to determine the need and excess in workers, it consists of two parts: the first fixes the number and composition of labor resources, in the second – their distribution. Types of employment, spheres of employment (material and non-material production), branches of economy, social groups, make the distribution of labor resources. It also determines the location of labor resources on the territory of the state.

Key words: region, balance, labor force, labor market, employment, indicators, human resources.

The elaboration, analysis and the management of the regional balance of labor resources is the conversion of the available information about the position of the studied object, previously observed tendencies and the conditions of its functioning at the moment to the system of ideas about the future condition or behavior of the object. In order to create an effective mechanism of formation, reproduction and the development of labor potential of the region, for ensuing its sustainable innovative development, consideration of the changes in the socio-economic and demographic processes for regional authorities, the task of elaborating the methodical bases of formation of the main indicators of the balance of labor resources, depending on the scenarios and the trajectory of economic development of the territory is very actual.

Recent current and future regional balance of labor resources are developed and operated in 1998 and 1999 in the general system of inter-branch balance of RK [1]. Since then, the balance of labor resources has not been developed. In 2009 it was planned to develop a current balance of labor resources and the promising balance until 2012, but the results still aren't be elaborated.

The establishment of the Eurasian Economic Union (EAEU) – of three countries as: Kazakhstan with Russian Federation and the Republic of Belarus consider the correctness of the calculations and the unification of all forms of payment and the balance report (currently among the CIS countries, there are the significant differences in the rates of balances the different levels of the system) [2].

Analysis of the report's form of Russian and Belarusian balances of labor resources did not show the differences in the units and in the indicators of labor development, including the regional labor markets. With high probability we can certify that the same system of indicators and calculations will be applied in the agreement with Russia and Belarus during the preparation of the current and future balances of the Republic of Kazakhstan [3].

In order to provide the most complete and objective evaluation of the level and structure of population's employment in accordance with the international standards, the definition of persons, who needs the employment for the elaboration of the measures for the effective solution of the problem

of the rational population's employment and the creation of new jobs in the regions, as well as further improvement of the employment registration system, it requires the elaboration of international standards on the basis of a unified methodology for the balance of labor resources.

This procedure must, first of all, include the procedure of compiling the balance of labor resources and the main its indicators, characterizing the availability of labor resources and their distribution, especially [4, 5]:

- ◆ number of labor resources;
- ◆ number of the economically active population, including the employed population and its distribution on the spheres of economics and on the kinds of economic activities, and the unemployed population, who needs the employment;
- ◆ number of the economically inactive population.

Comprehensive analysis of indicators of labor resources of Independent States countries (CIS) [1–6] allows us to propose the following unified scheme of terms, concepts, structures, subsystems (blocks) and the indicators of the balance of labor resources (drawing 1).

The number of labor resources (block 1) is calculated according to the data of statistical reporting.

The number of employed (block 2) is calculated according to the data of statistical reports and the results of observation of labor force.

The number of people, who need the employment (block 3) is calculated according to the statistical data of the authorities on the labor and on the results of the observation of labor force.

The number of economically inactive working able population (block 4) is calculated according to the data of statistical reports and the results of observation of labor force.

Reporting balance of labor resources is developed on the basis of actual indicators of labor resources and their distribution for the accounting period (year), as well as the results of the observation of labor force, conducted in the reporting year.

The experience of foreign and domestic elaborations, including the Soviet, allows us to offer a sufficiently tried and tested and reliable method of elaboration of the reporting balance of labor resources with the calculation of these indicators.

#### 1. The number of labor resources

The given indicator can be defined as the sum of the quantity of working able population in working-age and the number of employed persons, young or older of the working age:

$$Y_{lr} = Y_{wap} + Y_{wtp}, \quad (1)$$

where  $Y_{lr}$  – labor resources;

$Y_{wap}$  – working able population in the working age;

$Y_{wtp}$  – working teenagers and pensioners.

The number of  $Y_{wap}$  is easily calculated by subtracting from the quantity of the population in the working age (men aged from 16 to 63 years old and women aged from 16 to 58 years old), the number of disabled people of I and II groups, the categories of both genders in the working age:

$$Y_{wap} = N_m(16-63) + N_w(16-58) - N_i, \quad (2)$$

where  $N_m(16-63)$  – men aged from 16 to 63 years old;

$N_w(16-58)$  – women aged from 16 to 58 years old;

$N_i$  – disabled people of I and II groups in the working age (men aged from 16 to 63 years old and women aged from 16 to 58 years old).

Database on  $N_m(16-63) + N_w(16-58)$  is formed from the statistical data about the gender age composition of the population; on  $N_i$  – from the database of the Ministry of Labor and Social Protection of the Population about the quantity of disabled people in the working age; on  $Y_{wtp}$  – from statistical reports of the enterprises and companies on working teenagers till 16 years old and on pensioners.

#### 2. The number of economically active population

The given indicator of the number of economically active population is defined by formula as:

$$N_{eap} = N_{ep} + N_{uep}, \quad (3)$$

where  $N_{eap}$  – the number of economically active population;

$N_{ep}$  – the number of employed people;

$N_{uep}$  – the number of unemployed people, who need the employment.

The number of employed people in the reporting period can be calculated using the formula:

$$Nep = Nepfse + Nefpa + Nenfse, \quad (4)$$

where Nepfse – the number of employed people in the formal sector of the economy, including the registered entrepreneurs, who fulfill the activity without the education of judicial person;

Nefpa – the number of employed people in the farm and peasant agricultures;

Nenfse – the number of employed people in non-formal sector of the economy.

Database on the Nepfse provides with the statistical reports on the work of enterprises and organizations, the data of tax authorities; on Nefpa – the statistical data and the results of the observation of labor force; on Nenfse – the data of the observation of labor force.

On the latter factor, we should note that in the CIS countries to employed people in the informal sector of economics we include people, who unaccounted in the official statistics, who operate the hire permanent, temporary, one-time and seasonal work, including who travel to carry out these works outside the country, individuals, who lead their own business, who don't work on the hire with companions, people, who have salary or income from non-forbidden, but not a registered activity (for example, who are busy with pasture and the growth of cattle; individuals, who serve the customers and traders in the wholesale and retail markets; who are busy with trade in the non-stationary trade places, with private carting and with other kinds of the activities).

Determination of the number of employed people in the non-formal sector of the economy may be made on the basis of the observation of labor force, carried out by the relevant ministries of labor and social protection on the basis of the data of selective observation of labor force:

♦ to determine the proportion of the number of employed people, who are busy with the relevant kinds of activities in the non-formal sector, in total number of respondents in the working age, according to the formula:

$$PR_i = QR_i : QR * 100, \quad (5)$$

where  $PR_i$  – the proportion of respondents, engaged with the specific  $i$  kind activity in the non-formal sector of economy;

$QR_i$  – the number of respondents engaged with the specific  $i$  kind activity in the non-formal sector of economy;

$QR$  – the number of respondents in the working age, total.

Based on the proportion, we can implement the calculation of the population's quantity, who is engaged with the specific kind of the activity in the non-formal sector of the economy, according to the formula:

$$Nenfsei = Yqp * PR_i : 100, \quad (6)$$

where Nenfsei – the number of employed people in non-formal sector of the economy with the specific  $i$  kind activity;

$Yqp$  – the number of population in the working age.

Database on  $Yqp$  are the data of statistical report on the gender age structure of the population.

To determine the total number of employed people in the non-formal sector of economy the data on Nenfse for each specific kind of activity is summarized:

$$Nenfse = \sum_{i=1}^n Nenfse\alpha_i, \quad (7)$$

where Nenfse – the number of employed people in the non-formal sector of the economy, total.

Distribution of the employed population by economic spheres and by the kinds of economic activities is carried out in accordance with the applicable national classifiers.

### 3. Determination of the number of unemployed people, who need the employment

The number of unemployed people, who need the employment includes to the CIS countries the unemployed persons in the working age, for which granted the status of unemployed (UE) by the suitable organs on the labor; who are registered in the labor agencies as the job seekers (JS); who fulfill the research for job themselves without treating to labor agencies (JSt).

Database on the UE and JS is based on the reporting data of the relevant authorities on labor. To determine the number of JS from the number of persons, registered in the relevant authorities on labor

at the time of making the balance, it is deducted the number of people who are currently officially given the status of unemployed, including the persons, who receive the unemployment benefits, who are engaged on public works by the direction of labor organs and who are on the professional training, retraining and the advanced qualification on the direction of labor organs.

An account of JSt – the number of persons, who are engaged in the search for work independently, is based on the observation data of labor force as follows:

♦ by the results of the observation of labor force the proportion of the unemployed population, who needs the employment is determined consequently:

$$PUP = (UPo - EIPo) : NR * 100, \quad (8)$$

where PUP – the proportion of unemployed persons, who needs the employment;

UPo – the number of unemployed people, identified as a result of the observation of labor force, total;

EIPo – the economically inactive population, revealed as a result of the observation labor force, total;

NR – the number of respondents during the observation of labor force.

It is determined the total number of unemployed people, who need the employment, according to the formula:

$$Yue = Ypw * PUP : 100, \quad (9)$$

where Yue – the number of unemployed persons, who need the employment;

Ypw – the number of population in the working age;

PUP – the proportion of unemployed people, who need the employment, revealed during the observation of labor force.

It is determined the number of people, who search for the job themselves (without treating to labor agencies), as the difference between the number of unemployed persons, who need the employment, and the number of registered in the labor agencies as the job seekers and those with official status of the unemployed:

$$JSt = Yupe - JS - UP, \quad (10)$$

where JSt – job seekers themselves or independently;

Yupe – unemployed people, who need the employment;

JS – who are registered in labor agencies as the job seekers;

UP – officially registered unemployed people.

#### 4. The determination of the number of economically inactive population

The given indicator is calculated according to the formula:

$$Nenap = Nt + Nw + Nuppi + Nupdww, \quad (11)$$

where Nenap – the number of economically inactive population;

Nt – the number of the students out of the production, aged from 16 years old and older (in full-time education), including the pupils and students of secondary schools, academic lyceums, professional colleges, courses, universities and other educational institutions;

Nw – the number of women who are on the maternity holiday or on the childbirth leave, and on the holiday in caring for a child up to 3 years old, as well as the non-working mothers, who carry for a child under the age of 1,5 years old;

Nuppi – the number of unemployed persons in the working age, who receive a pension on the age on the beneficial terms, the disabled people of the groups I and II;

Nupdww – the number of people, who are unemployed themselves, who do not want to work or do not have the chance to get to work, including people with disabilities of group III.

Database on Nt is formulated from the data of the statistical reporting; on Nw – from the data of statistical reporting; on Nuppi – the data of statistical reporting; on Nupdww – the data from the observation of labor force.

The calculated indicators form the full structure of reporting balance of labor resources.

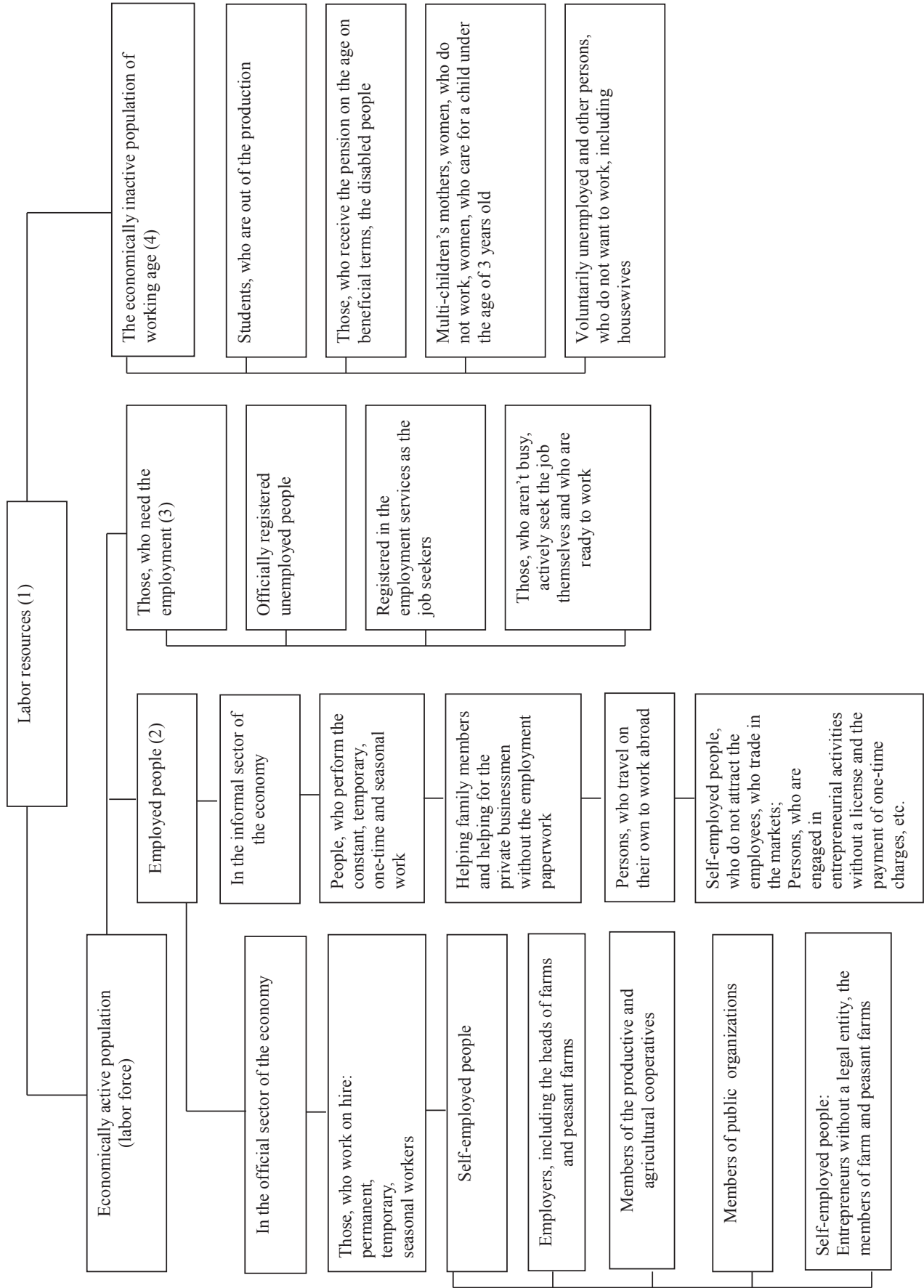


Figure 1 – The general scheme of calculating the balance of labor resources

The proposed method of elaborating the reporting balance of labor resources can well be used as the unified for the RK, RF and RB with a small correction on specified groups of labor resources.

The offered method contains an order of making balance of labor resources and its basic indicators, characterizing the presence of labor resources and their extension on the spehers of economy and kinds of economical activity, also the number of economically inactive and unemployed population, who need the employment. An account of the balance of labor resources allows complementing the picture of social-economic condition of territory by the way of including it to the complex plan of development and using it as the instrument of management by human resources of the region.

#### LIST OF LITERATURE

1 Treaty about the Eurasian Economic Union (May 2014). Articles 62, 63. Appendix № 14. Report of holding the conformal macro-economic politics.

2 Acts' meeting of the President of the Republic of Kazakhstan and the Government of the Republic of Kazakhstan. Strategy of territorial development of the Republic of Kazakhstan till 2015. – Astana, 2006. – P. 239.

3 Economic activity of Kazakhstan's population/Statistic manual of the Agency of the Republic of Kazakhstan on Statistics. Under edition of Smailova A.A. – Astana, 2013. – P. 260.

4 Level of population's life in Kazakhstan 2008–2012 years / Statistic manual of the Agency of the Republic of Kazakhstan on Statistics. Under edition of Smailova A.A. – Astana, 2013. – P. 167.

5 Countries and regions 2002. Statistic manual of World Bank. – M.: All world, 2003. – P. 240.

#### Аңдатпа

Мақалада жұмыспен қамту және адам ресурстарды есепке алу жүйесін жетілдіру, халықаралық стандарттарға негізделген еңбек ресурстарының балансын есептеу әдістемесі және еңбек ресурстарының өңірлік балансының сызбасы қарастырылған. Еңбек ресурсын және олардың бөлінуін сипаттайтын өңірлік еңбек ресурс балансының құрылу тәртібі және олардың негізгі көрсеткіштері көрсетілген, еңбек ресурсы балансының негізгі көрсеткіштерінің есептілігі келтірілген, онда еңбек күшінің мөлшері халықтың санына, көбеюіне, жынысы мен жасы бойынша құрамдарына байланысты. Өңірдегі еңбек ресурсының негізгі бөлігі – еңбекке жарамды негізгі еңбек ресурстары, сол сияқты жасөспірімдер мен зейнеткер жастағы тұлғалардың еңбекке қабілеттілігі. Экономикалық тұрғыдан белсенді халық санын және олардың шын мәнінде тауарлар өндіру немесе өндірістік емес секторына тартылған адамдарды бөліп көрсету қажет. Еңбек ресурстарының балансы – оның өндірістік жұмыс күшін сипаттайтын тұрғындардың шаруашылықтағы құрамдас бөлігі және олардың сапалық құрамын (жынысы, жасы, әлеуметтік топтары, жұмыспен қамту түрлері, халық шаруашылығының салалары мен кәсіптері) көрсетеді. Еңбек ресурстарындағы баланс – тұтынушылардың сұранысы мен қызметкерлердің артықшылығын анықтауға мүмкіндік береді, олар екі бөлімнен тұрады: біріншісі еңбек ресурстарының мөлшері мен құрамын, ал екіншісі – олардың бөлінуін тіркейді. Еңбек ресурстарының қазіргі балансы жұмысбастылық түрін, жұмыспен қамту (материалдық және материалдық емес) саласын, экономика саласын, әлеуметтік топтарды анықтайды, еңбек ресурсын бөледі. Сондай-ақ, мемлекеттің аумағында еңбек ресурстарының орналасуын анықтайды.

Тірек сөздер: өңір, баланс, жұмыс күші, еңбек нарығы, жұмыспен қамту, көрсеткіш, адами ресурстар.

#### Аннотация

В статье рассматриваются вопросы совершенствования системы учета занятости и человеческих ресурсов, дана методика расчета баланса трудовых ресурсов на основе международных стандартов, разработана схема регионального баланса трудовых ресурсов. Показан порядок создания ресурсов трудового баланса региона и его основных показателей, характеризующих наличие трудовых ресурсов и их распределение, приведены расчеты основных показателей баланса трудовых ресурсов, где размер рабочей силы зависит от населения, воспроизводства, состава по полу и возрасту. Основная часть трудовых ресурсов региона – это население трудоспособного возраста, так как подростки и лица, вышедшие на пенсию, могут работать. Необходимо отличать население, которое фактически участвует в материально-производственной или непроизводственной сфере экономически активного населения. Баланс трудовых ресурсов является неотъемлемой частью баланса национальной экономики, характеризующей воспроизводство труда, и отражает количество трудовых ресурсов и их качественный состав (по полу, возрасту, социальным группам, типам занятости, отраслям народного хозяйства и профессиям). Баланс трудовых ресурсов позволяет определить потребность и избыток рабочих и состоит из двух частей: первая фиксирует количество и состав трудовых ресурсов, вторая – их распределение. Настоящий баланс трудовых ресурсов определяет виды занятости, сферы занятости (материальное и нематериальное производство), отрасли экономики, социальные группы, распределяет трудовые ресурсы. Он также определяет местонахождение трудовых ресурсов на территории государства.

Ключевые слова: регион, баланс, рабочая сила, трудовой рынок, трудоустройство, индикаторы, человеческие ресурсы.