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# FORECASTING THE SOCIO-ECONOMIC DEVELOPMENT OF THE REPUBLIC OF BURYATIA IN THE CONTEXT OF LABOR POTENTIAL

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## ABSTRACT

*The article describes the method of forecasting the socio-economic development of the region in terms of implementing the labor potential. The fundamental idea of the article is the issue on how well the Republic of Buryatia is provided with an adequate amount of labor resources to make the transformation shifts planned by 2030. The calculation was made taking into account the reproduction of the population and subsequent changes in the age and gender structure. It is concluded that the economy areas have been sufficiently supported with human resources.*

**Keywords:** Socio-Economic Forecasting, Forecasting the Development of The Region, Labor Potential, Sectoral Structure.

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## 1. INTRODUCTION

The age structure of the population shows not only the current situation on the population reproduction, but can also serve as an indicator of the future labor resources development [1, 2]. The population structure by age is an integral factor of the economic growth [3].

## 2. METHODS

To define the labor potential for the next years, the gender and age structure of the Buryat population until 2030 was forecasted. The data for the forecast were taken from the official website of Buryatstat for 2014-2016.

Each year, the population matures by one year. That is why the forecast was made up to 2030. Thus, in 2030 the employable population will be 593.5 thousand people (males – 303.6 thousand, females – 289.8 thousand). This is 5.83 % more than in 2016. At the same time, the ratio of males and females does not change dramatically. There is an increase in the males. Thus, in 2016 the ratio of men and women was 1.01 (more women), and in 2030 – 0.95 (more women).

## 3. RESULTS

It is necessary to consider the development of the Buryat economy in various areas [4]:

- Mineral production,
- Manufacturing sector,
- Power production,
- Construction,
- Agriculture,
- Transport,
- Trade, and
- Services.

**Table 1.** Structure of GRP in the Republic of Buryatia by the Areas in 2015 and Forecast for 2030

	2015		2030	
	share, %	employment, %	share, %	employment, %
Mineral production	3.9	2	6.5	4.6
Manufacturing sector	19.8	11.6	19.3	11.1
Power production	5.4	3.6	4.7	2.9
Construction	4.4	6.4	3.8	5.8
Agriculture	5.9	13.9	7	15
Transport	15.2	7.5	15.4	7.7
Trade	13.7	14.8	14.5	15.6
Services	31.7	40.2	28.8	37.3

According to Table 1, it is possible to make the following conclusions:

1. A decrease, as well as an increase in the share of GRP is observed by the areas.
2. Using these data, it is possible to define the number of people employed by the areas and to determine the labor potential by the areas.

Using the data about the ratios of the employed population by the areas in 2015, it is possible to define the ratio of the employable population that will work in these areas in 2030. The results are as follows:

– In 2015 the share of the employable population working in the mineral production was 2 %; according to the forecasts, the yearly increase is about 1 – 2 %, which will give the final figure in 2030 of 4.6 % (increase by 2.6 %),

– In 2015 the share of the employable population working in the manufacturing sector was 11.6 %, in 2030 it will be 11.1 % (the share decreased by 0.5 %, due to a decrease in the production),

– In 2015 the share of the employable population involved in the power production was 3.6 %, and in 2030 it will be 2.9 % (a decrease by 0.7 %),

– In 2015 the share of the employable population employed in the construction was 6.4 %, in 2030 it will be 5.8 % (quite a considerable decrease by 1.3 %),

– In 2015 the share of the employable population employed in the agriculture was 13.9 %, in 2030 it will be 15 % (a considerable increase by 1.1 %),

– In 2015 the share of the employable population employed in the transport area was 7.5 %, in 2030 it will be 7.7 % (increase by 0.2 %),

– In 2015 the share of the employable population working in the trade sector was 14.8 %, in 2030 it will be 15.6 % (+0.8 %), and

– In 2015 the share of the employable population employed in the services sector was 40.2 %, and in 2030 it will be 37.3 % (-2.9 %, the largest decrease by the areas).

Thus, Table 2 shows the number of people employed by the areas.

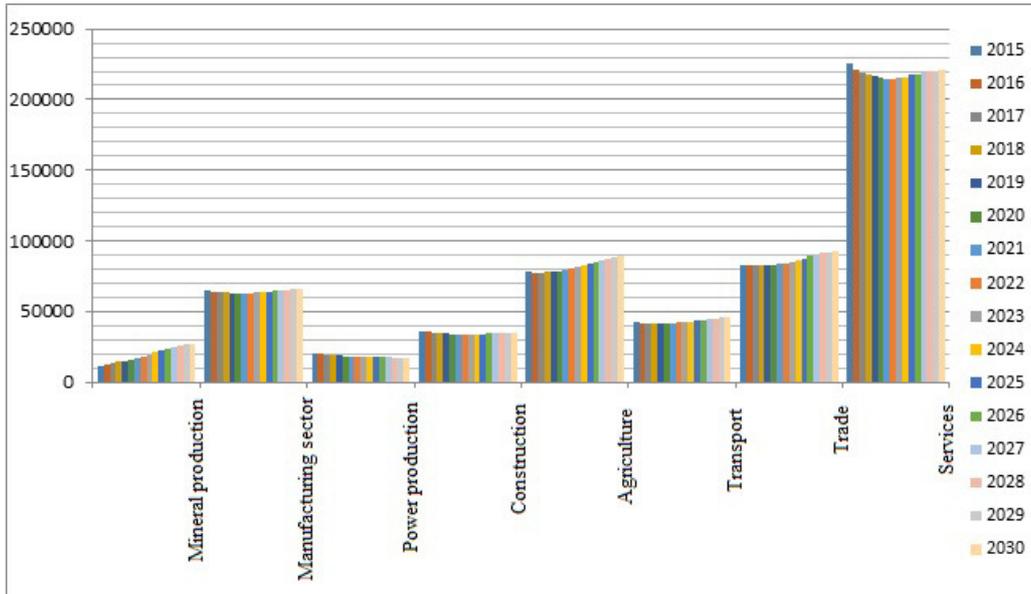
**Table 2.** Share and Number of Employees by the Areas in the Republic of Buryatia in 2015 and 2030

Indicator	2015		2030	
	number	share, %	number	share, %
Mineral production	11,216	2	27,299	4.6
Manufacturing sector	65,052	11.6	65,874	11.1
Power production	20,189	3.6	17,210	2.9
Construction	35,891	6.4	34,420	5.8
Agriculture	77,950	13.9	89,019	15
Transport	42,059	7.5	45,696	7.7
Trade	82,997	14.8	92,580	15.6
Services	225,438	40.2	221,360	37.3
Total	560,792	100	593,460	100

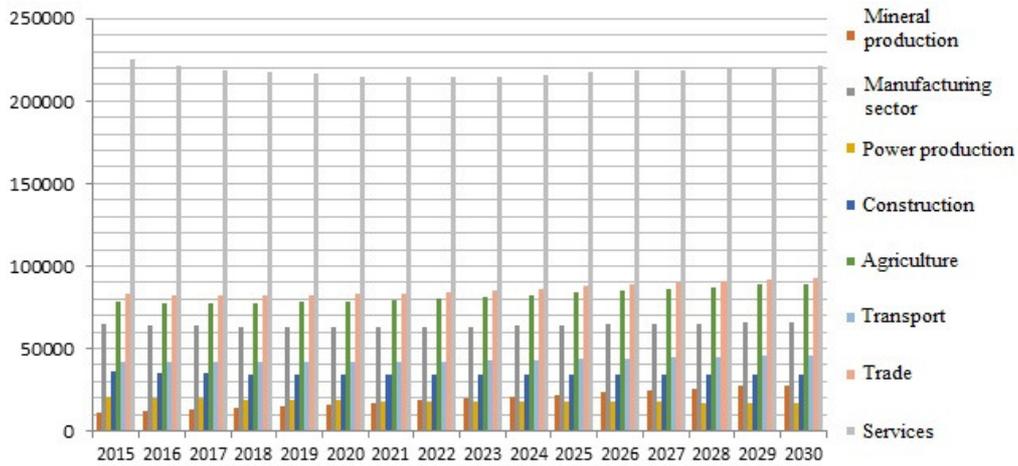
#### 4. DISCUSSION

The employable population has the potential to fill labor resources at enterprises of the growing sector of economy. This is achieved by labor resources that move from declining industries [5, 6].

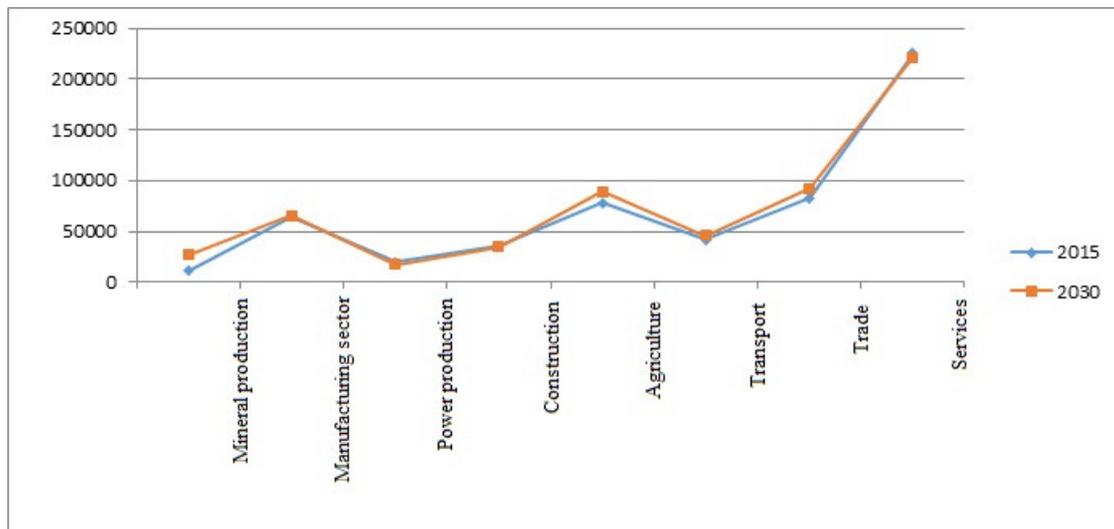
Now the trends of declining and growing of the number of people employed by sectors of economy will be considered (Figures 1, 2, 3).



**Figure 1.** Structure of the Buryat Population Employed in Various Areas since 2016 to 2030



**Figure 2.** Number of Employees in the Republic of Buryatia by the areas since 2016 to 2030



**Figure 3.** Structure of Employees in the Republic of Buryatia in 2016 and 2030

There is an increase in the share of both GRP and the number of labor resources by an average of 0.19 % in the mineral production. In absolute terms this is approximately by 945.5 people.

The manufacturing sector declines and grows, which determines some displacement of the labor force by about 0.04 % each year until 2023. Further, there is an increase in the share of GRP, and therefore, an increase in the labor resources.

The power production constantly declines (0.05 %), which determines the release of labor force to other areas that increase the share of GRP.

The construction sector also noticeably declines up to 2023 (0.04 %), then the shares of GRP and employed people increase until 2027. Then there is a decline again.

According to the forecasts, the agriculture will rapidly grow (approximately 0.08 % per year), which will require additional labor resources. There can be no problems in this area, because the number of employable population grows yearly. Besides, in other industries there is a displacement of labor force, which will allow to involve personnel in this area.

The transport sector also develops and increases the share of GRP and people employed, but not as fast as the agriculture (0.01 %). At the same time, it is necessary to note a considerable increase in the number of people employed in this area since 2023.

In the trade, there is a growth trend (0.06 %), but until 2019 there is still a uniform development, which indicates a constant number of employees.

The number of people employed in the service sector looks as a paraboloid: a decrease in employment until 2023 and then its growth.

The above analysis allows to see the regularity of growth in the number of people employed in the economy sectors since 2023. This is explained by the quality of the employable population. By this year, graduates of higher education institutions born in 2000 will become employable and qualified resources.

## 5. CONCLUSION

Thus, it is possible to make the conclusion that the growth of economic sectors will be supported by the required amount of labor resources that are highly qualified. This will cause the growth of production, services, jobs, and improve the quality of life of the Buryat population, as a whole.

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