**Non-compliance of the required and available labour force in Macedonia with special reference to the agricultural sector**

**Associate PhD. Silvana Pashovska[[1]](#footnote-1)**

***Abstract :****Unemployment is a problem faced by all countries in the world. The impact of joblessness on the macroeconomy at the broadest level, on the standard of living and thus on the quality of life of citizens at the micro level, is a strong factor on which depends the well-being and stability of a country in general. The unemployment rate is affected by many factors, which can be economic, sociological, political and the like. How a country shall fight unemployment and how successful it will be depending on its legislation, adaptability and mobility of labour and policies to encourage the employment of certain social groups, particularly those groups that in any means are discriminated in employment and have difficulties with limited or completely disabled access to the labour market.*

*Macedonia is already going through a thirty-year transition period with noticeable turbulence and shifts in all spheres of social life. Those years were filled with permanent, existential and transitional shocks - a change in the overall value system, a change in the dominant property relations, a struggle to introduce a pluralistic political system, a referendum to secede from the then Socialist Federal Republic of Yugoslavia struggle for rapprochement and admission to international organizations. But it is quite certain that we see the most severe transition shock in the sphere of the labour market where there is an imbalance between the required and the available labour force.*

*In this paper, the emphasis is on the basic hypothesis: "In our country the available force meets the needs of employers and above all whether in the agricultural sector there is sufficient labour capacity which is the most important demographic factor in this area."*

***Keywords: balance, demographic factor, labour market, economy, agriculture***

1. **Introduction**

The agricultural segment is vital for the economic development of the Republic of Macedonia. Favourable climatic conditions characterized by four seasons, with mild winters and long summers are very suitable for growing primarily plant products. The need to provide sufficient quantities of healthy food within the European Union and beyond, the lack of food worldwide indicates the fact that there is sufficient demand to be met, i.e., that on the supply side should be invested to increase the same. For these purposes, research is needed on the needs of the European and world markets for proper direction of the Macedonian agricultural production, i.e., for planned production, primarily of products with comparative advantages (wheat, rice, fruit, wine production, meat and tobacco). Agriculture is of central importance for the further growth and development of the Macedonian economy and therefore it is necessary to pay special attention to the determinants that affect its expansion, as follows:

● Workforce,

● Productivity and efficiency factors of the agricultural sector,

● Infrastructure,

● Agricultural markets and

● Foreign investments in the agricultural part.

The expansion of the agricultural sector is closely related to the availability of a highly educated workforce that will monitor and direct the work process, as well as a workforce that will be directly involved in the production process. Therefore, the improvement of the age structure in the rural areas, the education of the youth, but also the introduction of lifelong learning, creates preconditions for further development of this sector. Improving the labour productivity of the engaged factors and creating surplus products for sale on the domestic and foreign markets, inevitably leads to increased revenues of the agricultural sector and to improving the trade and payment balance of the country.

Agricultural policy is a set of measures related to domestic agriculture, as well as the import of agricultural products, and it is necessary to successfully implement those measures in order to deliver certain results on the domestic market of agricultural products. The results may include guaranteed level of supply of certain products on the market, price stability, production quality, product selection, land use, employment, qualitative and technical barriers to product placement, biosafety management, infrastructure conditions and transport, training of the workforce, research of market opportunities and consumer demands, etc.

But do we have villages where we will develop agriculture and do, we have people in those villages, people who are young enough and sufficiently trained to implement good farming practices? Rural areas have a negative increase which means that the population is seriously aging, only the Polog and Skopje regions have a positive natural increase, and all other regions in Macedonia have a negative increase. First of all, the rural areas are emptied and aged. In addition to this, there is a tabular overview with data for 2018 and 2019 on birth rate and mortality in Macedonia, which shows that we have a negative natural increase, which certainly does not go in favour of meeting the needs of young labour.

**Table 1. Natural increase in Republic of North Macedonia for 2018-2019.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2018 | 2019 | Difference |
| Born | 16.069 | 14.622 | 1.447 |
| Died | 14.530 | 15.260 | 730 |
| **Natural growth** | **+ 1.539** | **-638** |  |

*Source: State Statistical Office of Republic of North Macedonia*

In this context, the question arises whether we have enough educated people in the villages who will be able to implement modern agriculture? How productive is our agriculture, how economically efficient and profitable is it?

If we connect the share of GDP in agriculture with the engaged labour force in agriculture, we will come to astonishing conclusions. According to the data of the State Statistical Office of the Republic of North Macedonia in 2015 the share of agriculture in the total GDP was 9.4%, in 2018 it was 6.6%, while the share of labour force in agriculture in the total labour force was 24%. What does this information say? That our agriculture is still low productive and highly labour intensive, which prevents the growth of farmers' incomes. This means that support measures (in addition to direct payments in the form of subsidies) should also focus on specific rural development measures, which will focus on helping young farmers and their appropriate training, in order to increase productivity and reduce the engaged labour force, by modernizing the production processes.

1. **The role and engagement of the labour force in the agricultural sector**

In addition to capital, the labour force engaged in agriculture is one of the factors of production that has a great impact on the results achieved in this sector. The specifics of agriculture should be taken into account when making any labour force analyses. The labour force through the educational profile, as well as the acquired knowledge and skills, directly contributes to the amount of the realized agricultural income. Unlike other sectors in the economy, in the case of the agrarian sector, the labour force, in addition to being engaged by the business entities that exist in agriculture, is also engaged by individual agricultural holdings consisting of one or more agricultural households.

Unlike other sectors, in agriculture, with a large percentage of the total engaged labour force, the unpaid labour force participates, because most often in the individual agricultural holdings are engaged the members of the households that make up the agricultural holdings. The members of the households are usually unpaid labour, i.e., they exist from the realized income of the household, but do not receive monetary compensation, and in addition, in the individual agricultural holdings can be hired workers who are related to the unpaid households, i.e., as help in seasons when there is an increased workload.

The following table shows data on the number of workers engaged in agriculture in 2019 and it can be concluded that in the individual sector has engaged most of the labour force, i.e., 98.6% of the total workforce engaged in agriculture, while only 1, 4% is engaged in business entities. In the total number of workers, men have a higher share of 62.5%, and women participate with 37.5%.

**Table 2. Number of seasonal and other workers hired to work on agricultural holdings in 2019**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total | Male | Female |
| Individual sector | 94.229 | 58.893 | 35.336 |
| Business entities | 1.315 | 856 | 459 |
| **Total** | 95.544 | 59.749 | 35.795 |

*Source: State Statistical Office of Republic of North Macedonia*

The education profile of workers working in agricultural enterprises in Macedonia is much more favourable (higher level of education) compared to people working on individual agricultural holdings (where people with primary and secondary education work, and much less often with higher education). In order to increase agricultural production, larger investments are needed for training and retraining of farmers, through courses, seminars, as well as promoting the principle of lifelong learning. In fact, in our country, despite the drastic evictions that are present in the last two decades, there is still enough manpower that can meet the demands of the real sector, of course with the already mentioned training, qualification and retraining. Estimates show that some 500,000 people have fled the country in hopes of a better life overseas or in Europe. That represents almost 22% of the total population in the country, which reached a figure of 2,076,255, according to data from the State Statistical Office from 2019.

While the World Bank, Eurostat and the United Nations have made efforts over the years to determine how many people have left the diaspora through a variety of analyses, research and studies, there are still no relevant figures for that figure. The hopes are that the census, which has been waiting for 19 years, will count the diaspora and will give a clearer picture of the damage that the state suffers from the unstoppable emigration, especially of the highly educated staff. In addition, the table is showing the real number of unemployed people who are actively looking for work and are available for inclusion in the real sector.

**Table 3. Number of unemployed persons by educational structure as of 31.12.2020.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Employment Centre | Total | | Without education and with primary education | | Incomplete  Secondary  education | | Completed secondary education | | Higher education | | High education | | Masters of Science | | Doctors of Science | |
|  |  | Total | Women | Total | Women | Total | Women | Total | Women | Total | Women | Total | Women | Total | Women | Total | Women |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1 | Berovo | 1681 | 829 | 698 | 349 | 235 | 113 | 551 | 248 | 22 | 12 | 167 | 103 | 8 | 4 | 0 | 0 |
| 2 | Bitola | 6741 | 3554 | 2997 | 1469 | 724 | 320 | 1816 | 966 | 172 | 105 | 965 | 653 | 63 | 39 | 4 | 2 |
| 3 | Valandovo | 980 | 436 | 545 | 229 | 94 | 36 | 256 | 121 | 7 | 1 | 74 | 48 | 4 | 1 | 0 | 0 |
| 4 | Veles | 5458 | 2681 | 2831 | 1367 | 748 | 293 | 1427 | 715 | 70 | 41 | 363 | 253 | 18 | 12 | 1 | 0 |
| 5 | Vinica | 1050 | 493 | 681 | 334 | 89 | 28 | 201 | 88 | 8 | 1 | 70 | 42 | 1 | 0 | 0 | 0 |
| 6 | Gevgelija | 2116 | 1024 | 801 | 397 | 364 | 121 | 714 | 362 | 27 | 11 | 196 | 125 | 14 | 8 | 0 | 0 |
| 7 | Gostivar | 11297 | 5710 | 7599 | 4040 | 439 | 73 | 2491 | 1135 | 54 | 23 | 652 | 412 | 62 | 27 | 0 | 0 |
| 8 | Debar | 3064 | 1604 | 2131 | 1197 | 89 | 10 | 724 | 330 | 7 | 5 | 106 | 58 | 7 | 4 | 0 | 0 |
| 9 | Delchevo | 1661 | 840 | 742 | 378 | 214 | 92 | 555 | 274 | 23 | 10 | 121 | 82 | 6 | 4 | 0 | 0 |
| 10 | Demir Hisar | 892 | 481 | 280 | 151 | 131 | 59 | 364 | 190 | 12 | 4 | 97 | 70 | 8 | 7 | 0 | 0 |
| 11 | Kavadarci | 2336 | 1209 | 815 | 433 | 277 | 77 | 904 | 490 | 38 | 19 | 280 | 178 | 22 | 12 | 0 | 0 |
| 12 | Kichevo | 4073 | 2071 | 2158 | 1118 | 300 | 107 | 1152 | 549 | 39 | 21 | 383 | 253 | 40 | 23 | 1 | 0 |
| 13 | Kochani | 3598 | 1610 | 2031 | 960 | 433 | 104 | 838 | 371 | 36 | 19 | 248 | 150 | 12 | 6 | 0 | 0 |
| 14 | Kratovo | 714 | 368 | 317 | 159 | 50 | 16 | 275 | 149 | 4 | 1 | 63 | 40 | 5 | 3 | 0 | 0 |
| 15 | Kriva Palanka | 3063 | 1645 | 1183 | 626 | 565 | 268 | 1110 | 609 | 24 | 11 | 173 | 127 | 8 | 4 | 0 | 0 |
| 16 | Krushevo | 1248 | 624 | 588 | 316 | 178 | 66 | 361 | 166 | 12 | 8 | 104 | 64 | 5 | 4 | 0 | 0 |
| 17 | Kumanovo | 16223 | 8537 | 8521 | 4720 | 1682 | 643 | 4821 | 2406 | 105 | 52 | 1032 | 670 | 60 | 44 | 2 | 2 |
| 18 | Makedonski Brod | 1447 | 690 | 796 | 412 | 166 | 66 | 413 | 181 | 9 | 1 | 58 | 28 | 5 | 2 | 0 | 0 |
| 19 | Negotino | 1568 | 728 | 627 | 274 | 223 | 69 | 547 | 273 | 20 | 9 | 137 | 97 | 14 | 6 | 0 | 0 |
| 20 | Ohrid | 3923 | 1950 | 1299 | 660 | 807 | 274 | 1142 | 603 | 96 | 46 | 538 | 342 | 40 | 25 | 1 | 0 |
| 21 | Prilep | 9084 | 4266 | 3894 | 1915 | 1325 | 460 | 2793 | 1261 | 119 | 62 | 867 | 521 | 86 | 47 | 0 | 0 |
| 22 | Probishtip | 1161 | 543 | 340 | 148 | 177 | 40 | 483 | 260 | 13 | 4 | 144 | 90 | 4 | 1 | 0 | 0 |
| 23 | Radovish | 2989 | 1568 | 2085 | 1095 | 130 | 53 | 605 | 320 | 39 | 20 | 124 | 76 | 6 | 4 | 0 | 0 |
| 24 | Resen | 1656 | 729 | 701 | 314 | 95 | 19 | 573 | 236 | 23 | 14 | 241 | 133 | 23 | 13 | 0 | 0 |
| 25 | Sveti Nikole | 1534 | 661 | 617 | 271 | 141 | 43 | 608 | 251 | 20 | 7 | 139 | 81 | 9 | 8 | 0 | 0 |
| 26 | General of the city of Skopje | 30554 | 15622 | 17159 | 9416 | 3343 | 1060 | 6867 | 3181 | 133 | 68 | 2792 | 1729 | 248 | 161 | 12 | 7 |
| 27 | Struga | 4898 | 2410 | 2688 | 1327 | 508 | 165 | 1190 | 596 | 36 | 17 | 443 | 281 | 32 | 23 | 1 | 1 |
| 28 | Strumica | 6789 | 3443 | 4851 | 2402 | 450 | 197 | 1136 | 628 | 56 | 27 | 279 | 181 | 17 | 8 | 0 | 0 |
| 29 | Tetovo | 20163 | 10102 | 11278 | 5902 | 1243 | 303 | 5636 | 2533 | 110 | 50 | 1786 | 1243 | 106 | 69 | 4 | 2 |
| 30 | Shtip | 4471 | 2136 | 2171 | 1024 | 444 | 136 | 1343 | 666 | 96 | 54 | 387 | 239 | 27 | 17 | 3 | 0 |
|  | **Total** | **156432** | **78564** | **83424** | **43403** | **15664** | **5311** | **41896** | **20158** | **1430** | **723** | **13029** | **8369** | **960** | **586** | **29** | **14** |

*Source: Employment Agency of Republic of North Macedonia*

The table clearly shows that despite the large number of emigrants from Macedonia, the number of unemployed people who are present as a supply on the labour market is high, primarily due to non-compliance with the needs of demand, i.e., the real sector that makes up the market demand. of labour. The reasons for such non-compliance are the following:

- insufficient number of jobs to absorb the offer of young people on the labour market;

- the mismatch between the needs of employers and the qualifications of the workforce arising from the education system;

- the unwillingness of employers to provide funds to cover the costs of on-the-job training for young people who do not have work experience;

- lack of work experience, as well as a system for providing practical work for the registered unemployed persons;

- lack of non-formal education and training;

- more likely to work in the informal sector, and

- Insufficient incentive measures for youth employment.

In order to stimulate young people to work in agriculture, it is necessary to continue and intensify the policy of supporting agriculture, by providing subsidies and incentives in all its areas. The following is data on the amount of financial support in agriculture, with special emphasis on subsidies for tobacco production in Macedonia:

**Table 4. Payment of financial means in agriculture for the period 2015-2019**

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Total funds for financial support in agriculture  in MKD \* | Total funds for produced and sold unprocessed tobacco from 2015-2019 harvest in MKD | Share of tobacco support in the total support of agriculture in% |
| 2019 | 6.138.767.000 | 1.699.679.706 | 27,7 |
| 2018 | 6.210.500.000 | 1.696.688.814 | 27,3 |
| 2017 | 6.117.857.000 | 1.505.429.595 | 24,6 |
| 2016 | 6.320.000.000 | 1.130.548.658 | 17,9 |
| 2015 | 6.260.000.000 | 1.489.031.604 | 23,8 |
| **Average 2015-2019** | **6.209.424.800** | **1.504.275.675** | **24,3** |

*Source: Ministry of Agriculture, Forestry and Water Economy of Republic of North Macedonia*

Incentives and subsidies in agriculture are one of the measures to encourage the population to focus more on this sector, of course by cultivating those agricultural areas that are abandoned and uncultivated. This will lead to greater engagement in agriculture which is in dire need of labour.

**Conclusion**

Agriculture is the second sector in the country in terms of share in gross national income. It is crucial for the development of the whole economy, balanced regional development and keeping the rural areas in a vital condition by creating conditions for the young population to stay in them. This can be achieved by creating conditions for sustainable agriculture and its modernization in primary and secondary production, to increase production and raise the quality of Macedonian agricultural products, environmental protection, food safety and animal welfare, i.e., to create competitiveness and added value of agricultural products, and at the same time ensure the satisfaction of their own needs of domestic production. Achieving the competitiveness of agricultural products will necessarily ensure a dignified life for farmers and the development of rural areas.

Trends in labour supply and demand movements in every domain of social work, including agriculture, indicate that the issue of labour market flexibility, i.e., the issue of matching supply and demand of labour is one of the basic issues of which depends on the overall growth and development of the economy.

The key factors that affect the flexibility of the labour market are:

- labour mobility

- labour migration

- wage flexibility

- collective agreements

- skills and qualifications of the workforce

- barriers to entry and exit of the labour force

- the possibility for employment and dismissal of labour force

- labour market information

- flexible employment opportunities

- stimulation and financial support in the form of subsidies, etc.

The analysis and commitment of each of these factors individually will ensure a reduction in the imbalance between the required and available labour force in the labour market.

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1. Scientific Institute for Tobacco – Prilep, University of “St. Kliment Ohridski” - Bitola, Republic of North Macedonia, Silvana.Pasovska@uklo.edu.mk [↑](#footnote-ref-1)