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## **ANALYTICAL ASSESSMENT OF RESOURCE POTENTIAL OF THE REGION AGRICULTURAL ENTERPRISES**

**Problem definition.** Stability of development of the national economy, its branches, complexes and individual enterprises may be achieved only on the condition of comprehensive, system-based use of production factors – resources, whose availability and integration play key role. Transition to intensive management methods requires assessment of the resources, allocated to the branch process operations. Assessment of resource potential, structural shifts and peculiarities of interaction between component elements, perspectives of their development play important role in raising management effectiveness. Quality characteristic of the condition and level of use of resource potential is of prime importance. Solution of these tasks is rather problematic because not all structural components of resource potential can be directly measurable.

Review of literary sources makes it possible to notice that balanced formation of resources by enterprises is one of key prerequisite of their effective application. Economic content of resource potential may be determined as material condition for expanded reproduction. Balanced integration of resource potential may be represented through relationship of its components, which permits to implement enterprise strategic objectives and combine social, economic and ecological factors of development.

In formation of resource potential of agrarian enterprises more attention should be paid not to its quantitative build-up but to quality improvement and maintenance of rational proportions between its individual components. Effective use of resource potential depends on a number of factors, principal of them being: reasonable

relationship between elements of resource potential structure, production management system, implementation of resource saving technologies, consideration of natural and climatic conditions.

Analytical assessment of agricultural production effectiveness should be based on the level of resources use and potential possibility of their preservation and reproduction. This will permit to consider more amply unused reserves and assure scientifically grounded management of economy, to discover possible reserves for raising economic effectiveness of application of individual types of reserves. Incidentally, it is advisable to take into consideration amount of accumulated resources, availability of natural resources, level of their use, scope of gross product created by them [2].

**Analysis of principal investigations and publications.** Peculiarities of strategy of forming and using resource potential of agricultural enterprises are disclosed in scholarly works of such prominent scientists as: V.G. Andriychuk, G.M. Pidlisetsky, V.V.Rossokha, P.T.Sabluk, V.M. Tregobchuk, O.V. Ulyanchenko, I.I. Cherven, V.S.Shebanin, A.E. Yuzefovich [1; 3; 4; 6; 7; 9; 10]. However, assessment of resource potential of agricultural enterprises and effectiveness of use of its individual constituent components should necessarily consider regional specifics, including biological features of resources.

**Statement of objective.** The objective is to identify regional features and component elements suitable for formation of balanced resource potential of agricultural enterprises as based on integration of economic interests and areas of ecologization.

**Statement of principal research data.** Resource potential is used in enterprises activity in order to carry out process operations with consideration of the branch structure features. We have found that irregularity of socio-economic development of separate territories leads to differentiation of commodity producers' activity results. Region resource potential is formed upon interaction of natural and climatic conditions and branch principal production factors, namely: quantity and quality of agricultural lands; availability of human resources, level or number of people

engaged in agricultural production; level and quality of material support of production.

We have performed resource potential analytical assessment and found that Mykolayiv region possesses considerable possibilities for development of the agrarian sector. Due to existing natural-resources potential, Mykolayiv region is traditionally considered to be one of the regions of intensive farming. The region share in general agricultural production is about 4 percent per annum, including: products of crop growing – 4 %, products of animal breeding – 2,7 %.

Further branch development requires detailed evaluation, review of a number of positions regarding process technical and business conditions for functioning of the branch enterprises [5]. Principal performance indicators of the agricultural enterprises of Mykolayiv region are shown in Table 1.

*Table 1*

**Performance of agricultural enterprises of Mykolayiv region**

Indicators	Year			2012 deviation in % (percent) as compared to 2010
	2010	2011	2012	
Gross agricultural output (at fixed prices of 2010), mln UAH	3893.7	4557.7	3527.1	- 9.4
including products of crop growing	3478.7	4135.7	3128.4	- 10.1
products of animal breeding	415.0	422.0	398.7	-3.9
Agricultural products per capita (at fixed prices of 2010), UAH	3282.0	3860.0	3000.0	- 8.6
Proceeds from sale of agricultural products, mln UAH	916.5	971.7	1019.9	11.3
Profitability level of agricultural production, %	35.8	33.5	28.3	- 7.5 g.p.
Investments into basic agriculture capital, mln UAH	439.7	635.3	486.1	10.6
Direct foreign investments, thous. USD	5517.0	3007.1	1015.4	- 81.6

**Source:** drawn up by the author as based on the data of the Principal Statistical Department in Mykolayiv region [8].

Value of agriculture gross product amounted in 2012 to 3.53 bln UAH, which was by 9.4 % lower as compared to 2010. The greatest decrease was in products of crop growing – 10.1 %, in animal breeding – by 3.9 %. Proceeds from sale of agricultural products increased by 11.3 % due to curtailment of activity profitability

level by 7.5 percent as compared to 2010. Investments into basic capital increased by 11 % as compared to 2010, but decreased by 23.5 % as compared to 2011. Level of direct foreign investments has lowered in the latest years by 81.6 % as compared to 2010 and by 66.2 % as compared to 2011.

We have analyzed the level of resource potential of agricultural enterprises of Mykolayiv region. Principal indicators of resource potential are presented by us according to statistical information in Table 2.

*Table 2*

**Resource potential level of agricultural enterprises of Mykolayiv region**

Indicators	Year			2012 deviation in % (percent) as compared to 2010
	2010	2011	2012	
Number of agricultural enterprises, units	5315	5299	4779	- 10,1
<b>Land resources</b>				
Farmland areas, thous. hectares,	1057.4	1044.3	1022.2	- 3.3
including tilled soil, thous. hectares	940.5	928.4	906.4	- 3.6
<b>Labor resources</b>				
Medium-measured number of employed workers, engaged in agriculture, persons	20527	20548	19587	- 4,6
<b>Material and technical resources</b>				
Value of noncurrent assets at year-end, mln UAH	2106.9	2631.6	2842.2	34.9
Value of current assets at year-end, mln UAH	2762.0	4112.2	4909.1	77.7
Availability of power capacities, thous. kW	1328.8	1306.2	1421.6	7.0
Availability of agricultural equipment in agricultural enterprises, pcs	8088	7996	8235	1.8
Heads of cattle and poultry stock, thous. heads	4786.8	4668.4	4325.8	- 9.6

**Source:** drawn up by the author as based on the data of the Principal Statistical Department in Mykolayiv region [8].

Agricultural activity in the region is carried out by 297 economic companies, 266 private enterprises, 14 production cooperatives, 4041 farms, 12 state enterprises, 149 enterprises of other farming type. According to distribution of agricultural lands as of 2013, state enterprises concentrated – 58.4 thous. hectares of lands, non-state enterprises – 963.8 thous. hectares, including farms – 277.2 thous. hectares.

During latest years, quantity of agricultural enterprises diminished, in 2012 as compared to 2010 number of enterprises decreased by 10.1 %, with existing tendency of agricultural land area reduction – by 3.3 %, tilled land area – by 3.6 %.

Overall area of agricultural lands in the region exceeds 2 mln hectares and occupies close to 5% of Ukraine's territory, including 1.7 mln hectares of tilled land. Land fund of Mykolayiv region is characterized by high development degree. Agricultural lands occupy close to 82% of total land area. Typical feature of agricultural lands structure is considerable share of tillable land, being 84.6%. The rest of the area is constituted by: pastures –13.2%, perennial plantings – 1.8%, meadows – 0,2%, derelict land – 0,2%. Part of agricultural enterprises invariably dominate in the region total cultivated area – 65.4%, with 94.% of that category being non-state enterprises.

Favorable climatic conditions, surface topography and types of soils in the region conduce to growing of large variety of agricultural crops. Priority is given to crop growing branch, with 56.3 % of area being allocated to grain crops, constituted by 836.4 thous. hectares.

Industrial crops in all categories of farming enterprises in 2012 occupied 536.3 thous. hectares, which exceeded by 11,5% previous year indicator. In 2012, sunflower occupied 477.0 thous. hectares, exceeding by 23.9% the level of 2011. 2012 brought record-breaking harvest of sunflower seeds – 692.6thous. tons, being by 9.5% more than in 2011 and by 62.3% more than in 2005. As regards gross production of sunflower among the country regions, Mykolayiv region occupies sixth place.

Priority factor influencing activity in the area of crop growing is crop yield of agricultural crops. Per one unit of harvested land all categories of farming enterprises obtained 16.3 centners of grain, being by 12.1 centners less than in 2011. Harvesting productivity as to sunflower seeds amounted to 14.8 centners per 1 hectare, being by 1.8 centner less than level of 2011 harvest.

Structure of agricultural lands should provide for most effective use of existing production resources and obtention of maximal volumes of products growing. First of

all it is necessary to exclude from tilling meager lands and those located on steep slopes. It is these lands that should be occupied by legume grasses, capable of creating up to 500-700 kg of humus per area unit and accumulating 150-200 kg of nitrogen. And this is equal to introducing 20-30 tons of manure and 150 kg of nitrogen per 1 hectare s[10].

An important component of resource potential is labor force, characterized by both quantitative and qualitative indicators – education, length of service, professional training, qualification and age of employees. As of early 2013, medium-measured number of employed workers, engaged in agriculture of the region, decreased by 4.6 % as compared to 2010, which is related to low level of wages and social living conditions of rural population.

Let us analyze level of use of labor force in agricultural enterprises of Mykolayiv region (Table 3). Labor productivity per one person engaged in agricultural production decreased from 2010 by 7.9 %. But such tendencies can be traced in crop growing area, where labor productivity has dropped by 10,3 %, but in animal breeding – has grown up by 11. 5 %.

*Table 3*

**Level of use of labor force in agricultural enterprises of Mykolayiv region**

Indicators	Year			2012 deviation in % (percent) as compared to 2010
	2010	2011	2012	
Medium-measured number of hired employees, persons	20527	20548	19587	- 4,6
Average monthly nominal wages of hired employees, UAH	1399.00	1676.00	1882.00	34.5
Labor productivity (of persons engaged in agricultural production; at fixed prices of 2010), UAH	127120.50	140766.10	117108.30	-7.9
including in crop growing	131207.30	145568.10	117731.30	- 10.3
in animal breeding	100801.60	106374.80	112439.90	11.5

**Source:** drawn up by the author as based on the data of the Principal Statistical Department in Mykolayiv region [8].

Level of provision of agricultural enterprises with qualified personnel is determined by number of specialists per land area unit as well as by their share within

branch make up of employees. In Mykolayiv region up to 14% of staff register employees have undergraduate education and basic higher education and 13% have complete higher education.

The assessment of enterprises' material support, carried out by us, makes it possible to point out that material and technical resources are formed by: basic production capital, material working assets and reserves, nonproductive assets. Principal conditions for increase of material and technical resources output is improvement of their quality characteristics and optimization in use.

Analysis of material support of agricultural enterprises shows that for 1000 hectares of tillable land there are only 7 tractors (Table 4). Provision of agriculture with principal types of agricultural equipment is within 40-50% of standard demand. Greater part of equipment requires quality renewal and modernization.

*Table 4*

**Availability of principal types of agricultural equipment in agricultural enterprises Mykolayiv region**

Types of equipment	2010	2011	2012	2012 deviation in % (percent) as compared to 2010
Tractors	6470	6339	6537	1.0
Tractors per 1000 hectares of tillage, pcs	6	6	7	-
Grain harvesters, pcs	1345	1338	1410	4.8
Grain harvesters per 1000 hectares of area under grain crops (without corn), pcs	2	2	2	-
Corn harvesters, pcs	105	87	81	- 22.9
Beet harvesters, pcs	75	62	56	- 25.3
Potato combine harvesters, pcs	3	3	3	0
Milking plants and units, pcs	160	167	148	- 7.5

**Source:** drawn up by the author as based on the data of the Principal Statistical Department in Mykolayiv region [8].

We found out that in 2012 share of deactivated tractors amounted to 1.8% (118 pcs), grain harvesters – 1.7% (23 pcs), fodder choppers – 7.4% (16 pcs), milking plants and units – 10.6% (17 pcs). In 2012 as compared to the previous year, purchasing capacity of users of equipment and its purchase scope decreased. Part of purchased tractors within total number of the supplied ones amounted to 63.3%

against 87.5% in 2011, grain harvesters – 62% against 77%, and the same tendency is observed with regard to other types of agricultural equipment.

According to our calculations it has been found that low level of effectiveness in use of land resources is due to non-observance of technologies, insufficient technical equipment of enterprises. The region agricultural enterprises are provided with material and technical means at less than half of standard demand, and the equipment has high level of wear and tear. In formation of human resources of the enterprises there are also negative tendencies. Insufficient level of socioeconomic development of rural areas, low wages and unsatisfactory labor conditions led to personnel quality deterioration.

**Conclusions and further investigations.** To improve the situation as to balanced formation and effective use of resource potential of agricultural enterprises it is necessary to combine all internal economic measures with reasonable use of soils through optimization of cultivated area structure and reduction of plowing up, improvement of agricultural lands structure; introduction of required quantity of organic fertilizers, strengthening of material and technical base according to innovation principles; implementation of environmentally friendly, resource and energy saving and soil-protecting technologies, stimulation of organic farming; introduction of advanced technologies and highly reproductive crop varieties; implementation of complex of organizational and technological as well as financial measures, aimed at effective use of all resources types existing in enterprises.

Key role in formation of balanced resource potential of agricultural enterprises belongs to social, economic and ecological policy of the state. Implementation of the above measures will not be possible without state and region financial support, which should encourage investment policy in the branch and be carried out through use of subsidization system to improve the branch competitiveness.

#### **References**

1. Andriichuk, V.H. (2005), *Efektivnist diialnosti ahrarnykh pidpriemstv: teoriia, metodyka, analiz* [Operating efficiency of agricultural enterprises: theory, methodology, analysis], monograph, KNEU, Kyiv, Ukraine, 292 p.
2. Vyshnevskya, O.M. (2011), *Resursnyi potentsial ahrarnoho sektora ekonomiky Ukrainy: sotsialno-ekonomichni ta ekolohichni aspekty* [Resource potential of the Ukrainian economy



*agricultural sector: socio-economic and environmental aspects*], monograph, Mykolaiv, Ukraine, 487 p.

3. Trehobchuk, V.M., Yuzefovych, A.E., Krysanov, D.F. etc. (2003), *Vidtvorennia ta efektyvne vykorystannia resursnoho potentsialu APK (teoretychni i praktychni aspekty)* [Rebuilding and efficient utilization of agribusiness resource potential (theoretical and practical aspects)], p In-ekonomiky NAN Ukrainy, Kyiv, Ukraine, 259 p.

4. Pidlisetskyi, H.M. and Tolkach, M.I. (2008), "Improving efficiency of resource potential utilization in agrarian sector", *Ekonomika APK*, no. 5, pp. 65-66.

5. The Program for Mykolaiv Region Economical and Social Development 2011-2014 "Mykolaivshchina-2014". (March 25, 2011), Regional Council Resolution No. 3 dd. available at: <http://rtp.com.ua/4business/13/1660.html>.

6. Rossokha, V.V. (2005), "Methodological aspects of agricultural enterprises potential building and development in agribusiness", *Ekonomika APK*, no. 8, pp. 36-42.

7. Sabluk, P.T. (2005), "Coordinating directions solving economic problems in APC", *Ekonomika APK*, no. 5, pp. 3-8.

8. Chief Statistics Administration in Mykolaiv Region (2013), *Agriculture of Mykolayiv Region 2012: Statistics Yearbook*. 322 p.

9. Ulianchenko, O.V. (2006), *Formuvannia ta vykorystannia resursnoho potentsialu v ahrarnii sferi* [Formation and use of resource potential in the agrarian sphere], monograph, KhNAU im. V.V. Dokuchaieva, Kharkiv, Ukraine, 357 p.

10. Shebanin, V.S., Cherven, I.I., Shebanina, O.V. etc. (2010), *Zmitsnennia ta efektyvne vykorystannia resursnoho potentsialu silskohospodarskykh pidpriemstv* [Strengthening and efficient use of resource potential of agricultural enterprises], MDAU, Mykolaiv, Ukraine, 189 p.

#### **Літвак О.А. АНАЛІТИЧНА ОЦІНКА РЕСУРСНОГО ПОТЕНЦІАЛУ СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ РЕГІОНУ**

**Мета.** Стаття присвячена дослідженню регіональних особливостей і складових елементів формування збалансованого ресурсного потенціалу сільськогосподарських підприємств на основі поєднання економічних інтересів і напрямів екологізації.

**Методика дослідження.** Теоретичною і методологічною основою дослідження стали основні положення економічної теорії, наукові праці вчених з проблем теорії і практики використання ресурсного потенціалу сільськогосподарських підприємств в умовах реформування економіки, законодавчі та нормативні акти, аналітичні і статистичні матеріали.

У процесі дослідження використано комплекс таких загальнонаукових методів: монографічний метод – під час опрацювання наукових праць, статистичної інформації та вивчення досвіду з питань формування та ефективного використання ресурсного потенціалу сільськогосподарських підприємств; статистико-економічний метод – при дослідженні сучасного стану та рівня використання ресурсного потенціалу з урахуванням регіональних особливостей; метод аналізу та синтезу – для оцінки ефективності діяльності сільськогосподарських підприємств регіону та визначення основних напрямів підвищення ефективності використання їх ресурсного потенціалу.

**Результати.** Визначено основні критерії ефективності діяльності сільськогосподарських підприємств регіону. Проведено аналітичну оцінку ресурсного потенціалу, при цьому розкриті характерні особливості структури сільськогосподарських угідь, досліджено рівень використання трудових ресурсів та проаналізовано матеріально-технічне забезпечення сільськогосподарських підприємств регіону. Запропоновано основні напрями щодо збалансованого формування та ефективного використання ресурсного потенціалу.

**Наукова новизна** одержаних результатів полягає у подальшому розвитку методичних підходів щодо визначення ефективності використання та відтворення ресурсного потенціалу сільськогосподарських підприємств з врахуванням природно-кліматичних та соціально-економічних особливостей розвитку регіону.

**Практична значущість.** Висновки і пропозиції, одержані в результаті дослідження, дають можливість поглиблення системних підходів до організації збалансованого формування ресурсного потенціалу сільськогосподарських підприємств та підвищення його віддачі.

**Ключові слова:** ресурсний потенціал, рівень використання ресурсів, збалансоване формування ресурсів, природно-кліматичні умови, трудові ресурси, матеріально-технічне забезпечення.

**Літвак О.А. АНАЛИТИЧЕСКАЯ ОЦЕНКА РЕСУРСНОГО ПОТЕНЦИАЛА СЕЛЬСКОХОЗЯЙСТВЕННЫХ ПРЕДПРИЯТИЙ РЕГИОНА**

**Цель.** Статья посвящена исследованию региональных особенностей и составных элементов формирования сбалансированного ресурсного потенциала сельскохозяйственных предприятий на основе сочетания экономических интересов и направлений экологизации.

**Методика исследования.** Теоретической и методологической основой исследования стали основные положения экономической теории, научные труды ученых по проблемам теории и практики использования ресурсного потенциала сельскохозяйственных предприятий в условиях реформирования экономики, законодательные и нормативные акты, аналитические и статистические материалы.

В процессе исследования использован комплекс таких общенаучных методов: монографический метод – при обработке научных трудов, статистической информации и изучения опыта по вопросам формирования и использования ресурсного потенциала сельскохозяйственных предприятий; экономико-статистический метод – при исследовании современного состояния и уровня использования ресурсного потенциала с учетом региональных особенностей; метод анализа и синтеза – для оценки эффективности деятельности сельскохозяйственных предприятий региона и обоснования основных направлений повышения эффективности использования ресурсного потенциала.

**Результаты.** Определены основные критерии эффективности деятельности сельскохозяйственных предприятий региона. Проведена аналитическая оценка ресурсного потенциала, при этом раскрыты характерные особенности структуры сельскохозяйственных угодий, исследован уровень использования трудовых ресурсов и проанализировано материально-техническое обеспечение сельскохозяйственных предприятий региона. Предложены основные направления по сбалансированному формированию и эффективному использованию ресурсного потенциала.

**Научная новизна** исследования заключается в дальнейшем развитии методических подходов к определению эффективности использования и воспроизводства ресурсного потенциала сельскохозяйственных предприятий с учетом природно-климатических и социально-экономических особенностей развития региона.

**Практическая значимость.** Выводы и предложения, полученные в результате исследования, дают возможность углубления системных подходов к организации сбалансированного формирования ресурсного потенциала сельскохозяйственных предприятий и повышения его отдачи.

**Ключевые слова:** ресурсный потенциал, уровень использования ресурсов, сбалансированное формирование ресурсов, природно-климатические условия, трудовые ресурсы, материально-техническое обеспечение.

## **Litvak O.A. ANALYTICAL ASSESSMENT OF RESOURCE POTENTIAL OF THE REGION AGRICULTURAL ENTERPRISES**

**Purpose.** The paper covers research of regional features and components building balanced resource potential of agricultural enterprises based on combination of economic interests and directions of ecologization.

**Methodology of research.** Basic concepts of economic theory, scholarly works on theory and practice of agricultural enterprise labor resources utilization during economy reforming, laws and regulations, analytical and statistical materials have provided theoretical and methodological background to the research.

A set of the following general scientific methods has been used in the course of research: the monographic method – when examining scholarly works, statistical data, and studying experience in building and efficient utilization of agricultural enterprise resource potential; the statistical-and-economical method – when studying the current state and utilization level of resource potential subject to regional specifics; the analysis and synthesis method – to evaluate performance of agricultural enterprises in the region and identify main areas of improving their resource potential utilization efficiency.

**Findings.** The key performance criteria have been determined for agricultural enterprises of the region. Analytical assessment has been made for resource potential, in this context specific features of the farmland structure have been described, utilization level of labor resources has been studied, and material and technical resources availability to agricultural enterprises of the region has been analyzed. Main areas of the resource potential balanced building and efficient use have been proposed.

**Originality** of the results lies in further development of methodological approaches to identifying utilization efficiency and rebuilding resource potential of agricultural enterprises in view of natural and climatic and socio-economic features of the region development.

**Practical value.** The research findings and proposals enable deepening of systemic approaches to organizing balanced building of agricultural enterprise resource potential and efficiency of using thereof.

**Key words:** resource potential, resource utilization level, balanced building of resources, natural and climatic conditions, labor resources, material and technical resources availability.