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МЕХАНІЗМ ТРАНСФОРМАЦІЇ УКРАЇНСЬКОГО РИНКУ ПРАЦІ ДО "НОВОЇ ЕКОНОМІКИ" В ПОСТКРИЗОВИХ УМОВАХ СВІТОВОЇ ФІНАНСОВОЇ КРИЗИ

Визначено основні складові механізму трансформації українського ринку праці в посткризових умовах "нової економіки" або економіки, заснованої на знаннях. Розглянуто сучасний стан складових трансформаційного процесу. Зроблено висновок про рівень трансформації українського ринку праці в ситуації глобальної нестабільності.

Ключові слова: трансформаційний механізм; український ринок праці; нова економіка; економіка заснована на знаннях; посткризові умови; глобальна нестабільність.

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МЕХАНИЗМ ТРАНСФОРМАЦИИ УКРАИНСКОГО РЫНКА ТРУДА К УСЛОВИЯМ "НОВОЙ ЭКОНОМИКИ" В ПОСТКРИЗИСНЫХ УСЛОВИЯХ МИРОВОГО ФИНАНСОВОГО КРИЗИСА

Определены основные составляющие механизма трансформации украинского рынка труда в посткризисных условиях "новой экономики" или экономики, основывающийся на знаниях. Рассмотрено современное состояние составляющих трансформационного процесса. Сделано вывод о уровне трансформации украинского рынка труда в ситуации глобальной нестабильности.

Ключевые слова: трансформационный механизм; украинский рынок труда; новая экономика; экономика основывающаяся на знаниях; посткризисные условия; глобальная нестабильность.

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DEVELOPMENT OF ANIMAL SECONDARY RAW MATERIAL MARKET AS A FACTOR OF DIVERSIFICATION OF KAZAKHSTAN'S EXPORT POTENTIAL

Products of the recycling of livestock should become the most important part of the Kazakhstani export potential. Using recycled materials in the finished production cycle would significantly diversify the export component of national agro-industrial sector of the Republic. The article proposes an approach to the placement of industries, processing secondary raw materials in order to obtain market product with high added value, which will result in implementing the existing potential of the agricultural sector of the state.

Keywords: raw material, diversification, export, economics potential, animal breeding.

Kazakhstan has always been considered to be one of a largest cattle-breeding country due to its peculiar natural conditions and work skills of local people. Up to the development of virgin and long-fallow lands in the mid-fifties country's livestock was the main branch of agriculture. Despite the rapid development of agriculture since developing the virgin land, the value of livestock in the economy of Kazakhstan is still very high.

Livestock production has been key economic activity in Kazakhstan for centuries and remains still one of the major sources of employment, food, and earnings of rural people. This branch of the agricultural sector is traditional in Kazakhstan due to national peculiarities of the population. Locals living in a village cannot be imagined without their own farms. From time immemorial, domestic animals (horses, sheep, cows, camels) were the basis of the "economy of a family" for Kazakhs.

From 1990 to 1998 the consumption of livestock products reduced by approximately 40%. Decreased consumers' income, high prices for animal products due to liberalization of prices, inflation, and the consumer's subsidies abolition led to a sharp decline in the consumption of these products. Fluctuation in the domestic market demand deteriorated sharply with reduced export markets.

Export of meat, the main export product until 1990, virtually disappeared after the demand in the former Soviet Union countries fell, and meat export to other countries

was difficult due to the inland location of Kazakhstan, poor products quality, lack of in international sales experience and increasing restrictions on trade in the region. Compared to other Central Asian countries, the decline in the industry in Kazakhstan was more serious, as Kazakhstan had been the largest supplier of animal products to the market of the Soviet Union throughout the region, including supplying the Ministry of Defence, a large part of public procurement (one of the largest meat processing plants in Semipalatinsk provided the entire Soviet Union with its production, as an example). Meat and wool processing industry especially in the eastern and northern regions, was highly developed. Many of related companies worked only for export markets and livestock production in these regions was oriented to the needs of the processing industry. Since domestic demand was less the conservation of livestock population after the reform seemed less possible than in other Central Asian countries.

The period of the establishing independent Kazakhstan influenced the livestock industry, so in 1993-1994 such factors as increase in fuel prices, food concentrates, food additives and veterinary drugs, together with import growth and other macroeconomic indicators, have led to a reduction of livestock in the country.

The total number of cattle decreased sharply from 1992 to 1998. This tendency varied in the regions of the country. For example, the northern regions have lost about 72% of

the number of sheep herds, compared to 30% in the western region. At the same time with the change in livestock at the beginning of 1990s the livestock production also started to decline. From 1990 to 2000, meat production decreased by 58%, milk production decreased by 31% and wool production decreased by 78%.

The number of cattle in the country has decreased from 9 to 6 million animals for the past 20 years. Meat exports scored 180 000 tons, and today there is hardly anything left. Quality characteristics of livestock have been deteriorating. If earlier an average carcass cattle slaughter weight was 230 kilograms, it has fallen to 156. The share of animal meat in the national herd has decreased to 9%, and it should be raised to 50%. For example, in such exporters as the U.S. and Canada beef cattle share is 75-85% of the total population.

Despite the decline in the livestock sector during the years of independence, Kazakhstan's cattle industry has a number of comparative advantages, which will enable the

sector to contribute significantly to revenue growth, employment and export potential of the country. These are extensive, but little used pasture and hay land, flexible and cheap industrial structure of small farms, as well as the availability of cheap by-product of large-scale crops (feed grain and oilseeds from food crops).

It seems that the further growth of the livestock will be due to the industry's ability to realize the comparative advantages that have occurred during the years of independence. These are significant growth opportunities in the local market in the medium term and export opportunities in the long run. Growth of national income increases the demand for livestock products in Kazakhstan.

At present the export of animal products is low, but there are some opportunities in niche markets for high quality products. The government is taking steps to improve the quality of the meat and to make adjustment to accepted international standards, the most important of which are given in Table 1.

Table 1. Activities aimed at the development of livestock in Kazakhstan

№	Name of event	Showing
1	The program of development of small and medium farmers in the period from 2011 to 2015	28 billion tenge
2	Purchase of breeding animals for meat	72 thousand tenge
3	Building feeding platforms	60 pcs
4	Building reproducers	50 pcs
5	Building modern centers of breeding cattle reproduction	North, South, East, West
6	Finance the first stage of the Project	148 billion tenge

For the implementation of these activities it is necessary to develop the following infrastructure: veterinary stations, veterinary laboratories, equipment and transport, chemical laboratories, organizing and equipping slaughter areas, personnel training for livestock and providing veterinarians.

Implementation of the tasks will export 60 tons of meat in 2015, and 120 thousand tons in 2020. Calculations show that the Kazakh livestock has at least five-fold potential starting from today. The genetic potential will raise the average daily gain to the required 1600 grams, and the output of meat will be 55-60%.

Meat producing industry in East Kazakhstan region is considered to be one of the largest branches with a share of 11.4% in the total volume of marketable produce. The region is referred to as a stock-raising in agricultural sense and has productive capacity of 38 plants for meat processing of all kinds of cattle.

The factors making the region one of the most promising to formation and development of meat are as follows:

- a positive trend of production growth of meat of all kinds of cattle;
- availability and optimal placement of slaughterhouses and meat producing businesses;
- the ability to recover large enterprises for processing animal raw materials and the introduction of new production capacities;
- potential foreign markets with large demand of meat products.

Enterprises that are recommended to unite in meat production, are part of (or are themselves the basis) of large, vertically integrated organizations – from the cultivation of all kinds of cattle breeding to the production of finished products. It is intended to introduce deep processing of meat in

11 regions and cities in the region, which, of course, will be accompanied by the output of a large number of secondary raw materials. Secondary raw materials can be further processed and used as a finished product or raw material for the manufacturing products with complete production cycle. The bill of goods, and recycled products and animal products and their application are quite varied: from the textile and light industry to cosmetics and engineering.

Since the most part of the secondary raw materials is lost during slaughter, the main points of collection should be placed at meat-processing plants and slaughter grounds.

The development of regional clusters of livestock can solve not only the problems with meeting domestic needs, but also to expand export opportunities in foreign markets both through the expansion of the range of meat products and through the production of exclusive products based on recycling.

Quality criteria are of key importance in determining the benefits of export of agricultural products. Therefore, the priority should be given to issues of livestock breeding. According to the studies conducted by the East-Kazakhstan Scientific – Research Institute of Agriculture, promising areas for pedigree sheep breeding were identified. Keeping livestock breeding will allow providing quality conversion of sheep and then raising its productivity in short terms. The success of pedigree stock-breeding depends on the state of primary and zoo technical breeding records on a sheep farm. The proposed plan of pedigree breeding involves considerable financial investments and experienced personnel supply.

In the process of studying the state and prospects of animal husbandry development in the East Kazakhstan region the areas were classified in order to identify priority ones, which are then to be recommended as a priority in the processing and delivery of recycled livestock sector.

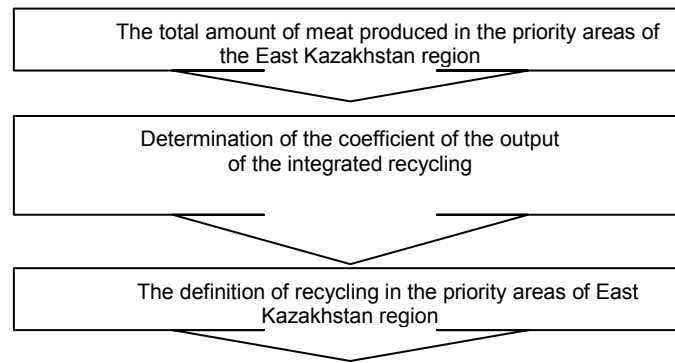


Fig. 1. The algorithm for determining the yield of secondary raw materials in the slaughter of cattle

The algorithm involves the following steps: Step 1. The volume of meat produced in the priority areas is defined by the data of official statistics. Particularly the information from statistical collection was used [1]. Summary information on the amount of produced meat is given in Table 2.

Table 2. Amount of meat produced in the priority areas of the East Kazakhstan region in 2011

Groups of Areas	Area	Marketable meat (thousands of tons)
Areas of the first order	Tarbagatay	19779,2
	Urdjar	16758,9
	Zharmin	13017,8
Priority areas of the second order	Abay	11850,4
	Ayagoz	16034,9
Total		77441,2

Note – compiled by the author according to the East Kazakhstan Department of Statistics

Step 2 The coefficient of the output of the integrated recycling is calculated by formula 1.

$$\bar{C} = \frac{C_i}{S_i} \times 100\% \quad (1)$$

Where: \bar{C} – average integrated rate of recycled materials output in various types of livestock slaughter C_i – the ultimate production of recycled materials in S_i – total live weight of cattle in tons

Table 3. Basic data and calculations to determine the average ratio of the integrated recycling

Kind of livestock (i)	Quantity produced meat in East Kazakhstan in 2011(thousand of tons) m_i	Recycled materials output p_i^*	Cattle live weight $S_i = \frac{m_i}{1-0.01 \cdot p_i}$	Recycled materials output, tons $c_i = 0.01 \cdot p_i \cdot S_i$
Cattle	58108,1	0.42	58353,18	24508,34
Small cattle	22607,2	0.29	22672,95	6575,156
horses	11040,5	0.26	11069,28	2878,013
swine	9923,7	0.5	9973,568	4986,784
Total	101679,5		102069	38948,29

* - the exit rate of recycled materials of different cattle types are taken from reference and normative [2, 3, 4, 5].

$$\bar{C} = 38948,29 / 102069 \cdot 100 = 38,15$$

The calculations showed that the integrated recycled output ratio is 38,15%

Step 3 Determine the amount of recycled materials in the East Kazakhstan priority areas by formula (2).

$$V = M \cdot \bar{C} \quad (2)$$

Where: V – recycled materials amount M – produced meat amount \bar{C} – average integrated coefficient of recycled materials output in slaughter of various types of livestock

Table 4. Output recycled in priority areas of the East Kazakhstan region in 2011 (in tons)

Priority areas	East Kazakhstan areas	Meat produced, tons, 2008	average yield differential coefficient of recycled materials \bar{C}	Quantity recycled materials ($V=M \cdot \bar{C}$) tons**
Areas of the first order	Tarbagatay area	19779,2	0,3815	7547,504
	Urdjar area	16758,9		6394,994
	Zharmin area	13017,8		4967,435
Areas of the second order	Abay area	11850,4		4521,969
	Ajagoz area	16034,9		6118,724
Total		77441,2		29550,63

* – Data taken from East Kazakhstan official statistics

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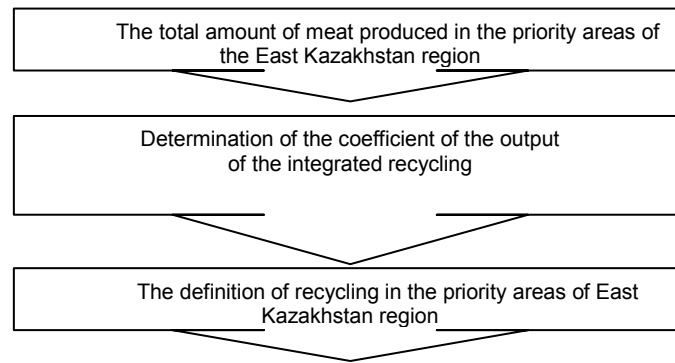


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The calculations showed that the amount of recycled materials in the priority areas in 2011 equals to 29550,63 tons. The expected effect can be differentiated by the beneficiaries as follows:

– on a state scale – reducing the shadow economy of all recycled materials, the development of manufacturing industries with innovative processing technologies, diversification of export component in the agricultural sector; resourced domestic processors of raw materials, ensuring the domestic market with quality and eco-friendly products, expanding the range of exports and profits on exports of goods with a high level of local content, the intended using of investments in agro-industrial complex (monitoring of expenditures), involvement of financial resources of specialized and private institutions in the turnover, establishing a specialized agricultural bank, bank, developing related industries;

– across regions and districts – for rural areas – increase the revenues of the district budget in the form of tax revenues, create new businesses in rural areas, promote livestock development in the area as a profitable agricultural sector, and stimulate the introduction of livestock species, create new jobs, increase in income of country people, an additional source of revenue for private holdings, reducing the outflow of people from rural areas, improve market, industrial and transport infrastructure in rural areas, loyal access to financial resources, develop small and medium-sized enterprises in rural areas, form rural specific business – environment, attract experts and improve the professional competency of the participants of recycling process [6].

We believe that this approach in locating industry, processing secondary raw materials to obtain market products with high added value, will actualize the existing potential of agriculture.

The Kazakhstan's export potential should comprise animal secondary raw materials recycled. The use of recycled materials in the finished production cycle would significantly diversify the Kazakhstan's export component of the agro-industrial complex in. In addition, the constraints on the production of export oriented products in the livestock

sector can be divided into system or objective factors, not influenced by anything, and subjective ones.

System factors include undeveloped markets for recycled materials, and in some cases, complete lack of demand, and lack of necessary facilities for transportation and storage, as well as partial processing of raw materials in the collection sites, low interest of agricultural structures in livestock breeding, a significant proportion of private livestock.

Subjective factors include the low level of skills in processing industry, imperfect legal framework, the lack of state support for processors of agricultural raw materials, poor information and marketing support, poor transportation infrastructure. These factors together lead to inefficient use of recycled livestock. Export potential of the country is closely connected to problems of transportation, storage, gathering and processing. In general, providing a comprehensive approach to recycling will be followed by the export potential growth.

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РОЗВИТОК РИНКУ ВТОРИННОЇ СИРОВИНИ ТВАРИННИЦВА ЯК ФАКТОР ДИВЕРСИФІКАЦІЇ ЕКСПОРТНОГО ПОТЕНЦІАЛУ КАЗАХСТАНУ

Найважливішою складовою частиною експортного потенціалу Казахстану мають стати продукти переробки вторинної сировини тваринництва. Використання вторинної сировини в завершеному циклі виробництва дозволить у багато разів диверсифікувати експортну складову країни в агропромислому комплексі Республіки. Використання запропонованого в статті підходу в розміщенні галузей переробки вторинної сировини з метою отримання ринкового продукту з високою доданою вартістю, дозволить реалізувати потенціал агропромислового комплексу держави.

Ключові слова: сировина, диверсифікація, експорт, потенціал, тваринництво.

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РАЗВИТИЕ РЫНКА ВТОРИЧНОГО СЫРЬЯ ЖИВОТНОВОДЧЕСТВА КАК ФАКТОР ДИВЕРСИФИКАЦИИ ЭКСПОРТНОГО ПОТЕНЦИАЛА КАЗАХСТАНА

Важнейшей составной частью экспортного потенциала Казахстана должны стать продукты переработки вторичного сырья животноводства. Использование вторичного сырья в завершеном цикле производства позволит во много раз диверсифицировать экспортную составляющую страны в агропромышленном комплексе Республики. Использование предложенного в статье подхода в размещении отраслей, перерабатывающих вторичное сырье с целью получения рыночного продукта с высокой добавленной стоимостью, позволит реализовать потенциал агропромышленного комплекса государства.

Ключевые слова: сырье, диверсификация, экспорт, потенциал, животноводство.