

## THE PRESENT-DAY APPROACH TO THE DEVELOPMENT OF AGRICULTURAL TRADE ALONG THE NEW SILK ROAD

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The trade along the Silk Road united relations between many countries for a long time. Sellers are said to provide a variety of unique products, which had specific properties of the right country. Spices and oils, delivered in the Silk Road, were competitive demanded products for those days. A modern consumer requires new diverse intercultural products at the right time and the right volume. The main aim of the paper is to explain the novel way of the Silk Road exploitation in conditions of Green Economics.

The object of the study is the export capacities of various countries from China to the European Unions. The author selects such countries as China, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Kyrgyzstan, Ukraine, and Belarus to study export/import operations. To base the suggestions the author learns the trade of vegetable oils such as coconut, maize, olive, palm, and sunflower. Estimating a country deficit and production volume, the author bases a potential supply of a variety of oils for a country. The author implies the method of trade potentials to equate demand and supply of oils the possible volumes of export were classified in sorts and consumption for each country.

The author reveals that each country has a particular export structure. Belarus, for instance, concentrates on rapeseed oil (40.5 thousand tons), China offers soybean oils (102 thousand tons), Kazakhstan and Ukraine export sunflower oil mostly (25 thousand tons and 4.0 billion tons). It was proposed to change export and share variety of vegetable oils according to current supply in each country along the Silk Road. It would lead to balanced consumption and optimal price formation.

The expansion of the New Silk Road are among the most common discussed issue of politics, economists and scientists. The trade along the Silk Road united relations between many countries for centuries. Sellers are said to provide a variety of unique products, which had specific properties of the right country. Spices and oils, delivered in the Silk Road, were competitive demanded products for those days. Innovations in transport systems such as air and rail transportation decrease the importance of The Silk Road. Furthermore, global market development have resulted in creation of intercontinental trade unions. Location of military conflicts, breaking existing economic relations between many countries, and lack of modern transport infrastructure make further expansion of the New Silk Road more challenging.

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A modern consumer requires new diverse intercultural products at the right time and the right volume. Moreover, quickly changing on-line commerce might lead to a novel pattern of trade between different countries. From this side, trade of agricultural products could increase export potential for countries, which has limited opportunities for today. Vegetable oils are supposed to be the most demanded products around the world. Enormous consumers give preferences to vegetable oils rather than livestock ones. Therefore, the natural conditions of Asian countries might ensure the production of the entire variety of vegetable oils demanded in Europe. From the other side oils of industrial crops such as rapeseed are in demand in China and Kazakhstan. Consequently, enhancing of trade relations between neighbor countries will lead to increasing in turnover and providing the essential set of vegetable oils in every country.

The aim of the article is to investigate the internal trade potential of the countries, included to the Silk Road economic Belt using an example of vegetable oils distribution in conditions of Green Economics. We choose these types of products to explain how the group of countries might enlarge the export potential, managing the existing variety of oils. Many modern scientists studied the issue of the New Silk Road development last 5 years. However, two following practical issues related to agriculture were left unanswered. There is no indication of the positive influence for small countries or countries, which export only a few types of variety. The other issue is how the new Silk Road expansion will result in broadening of external commodity circulation.

To answer these questions, we set the following research tasks:

1. To select the group of countries and set of vegetable oils.
2. To study export and import circulation in the region for five years.
3. To calculate export to import index.
4. To advance trade balance using potentials of countries.

The object of the study is the export capacities of various countries from China to the European Unions. The author evaluates one from the diversified ways of the New Silk Road, which includes such countries as China, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan, Ukraine, and Belarus. The vegetable oils include oils from castor beans, coconut, cottonseed, linseed, olive, palm kernel, rapeseed, soybean, sunflower, vegetable origin. We exclude some sorts of vegetable oils because their quantities in trades were so few to influence on total export potential. The data were obtained from faostat base.

We use the simplex method to examine trade potential of the countries. The objective function is maximization of the total export value.

$$\text{Objective function: } Z = \sum(x_{ij} * p_{ij} * I_{ij}) \rightarrow \max \quad (1)$$

$x$  – is indicator of an export quantity of  $i$  country of  $j$  vegetable oil

$p$  – is indicator of a possible price of  $i$  country of  $j$  vegetable oil

$I$  – an index of opportunity of  $i$  country to export  $j$  vegetable oil

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The entire export potential is based on a level of production. Each of researched countries has unique natural conditions, which result in size and variety of oil crops. The leader of oil crops production is China, where 66.4 million tons were harvested in 2020. To provide such enormous amount of oil crops farmers grow 17 types of crops. The main crops in China are coconuts (16.4 million tons) and cottonseeds (16.0 million tons). Furthermore, the industrial crops such as sunflower and rapeseed play an essential role in oil crop production in the country. Ukraine produces 19.3 million tons of eight sorts of crops. Production of sunflower is a crucial issue for Ukraine because its product forms the main part of international currency of the country. In 2020, the production of sunflower was 13.6 million tons. It is important to underline that Uzbekistan has the main potential in cotton production, which was equal to 3.2 million of tons. Kazakhstan provides linseed and sunflower seeds, which are equal to 561.7 and 754.9 thousand tons. The total amount of oil crops in Kazakhstan is 2.2 million tons. The most challenge issue of export among researched countries has Turkmenistan because the farmers produce only cotton (430 thousand tons) here. Therefore, it limits further export potential of Turkmenistan along the New Silk Road. From the one side, this country harvests only one crop. From the other side, it has the huge competitor on the cotton market such as China. The results of export trade show that the total amount of vegetable oil in eight countries decreases from 4.6 to 3.7 billion \$ in 2016-2020 years. The main reason of the decreasing is limitation of sunflower export in Ukraine. Furthermore, the average price of vegetable oils fell on 30% in Ukraine.

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