

## ENVIRONMENTAL ASPECTS OF SUSTAINABLE LAND USE IN EU COUNTRIES

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**Abstract.** The article examines the ecological aspects of sustainable land use in the countries of the EU. It was determined that detailed work is currently underway to reduce the impact of factors on ecology in the EU countries, which ensures the sustainable development of land use. The ecological efficiency index was analyzed, which showed that most EU countries thoroughly approach the issue of increasing ecological efficiency in the field of agriculture.

**Keywords:** environmental problems, sustainable land use, EU, environmental efficiency.

In modern conditions, the aggravation of the ecological situation, the efficiency of land management is of particular importance because of the need for their rational use. In this context, it is important to consider the effectiveness of land management as an approach that takes into account economic and environmental factors. This includes not only maximizing profits from the use of land, but also increasing soil fertility, product quality, and environmental conditions of production.

Effective financial planning and adequate allocation of funds for the agricultural sector are key to ensuring sustainable land use [4]. Note that the main disadvantages of land use in the EU are: false strategies for maximum involvement of land in cultivation; imperfect and technologies for cultivating land and producing agricultural products; non-observance of crop rotation; application of insufficient amount of organic fertilizers; imperfect system of use and application of mineral fertilizers; failure to perform anti-erosion measures.

The European space is dominated by changes that have been positively evaluated in economic terms, negatively evaluated in environmental terms, and unchanged in social terms [2].

Greening of land use is the sustainable reproduction of land and other natural resources by improving technology, organizing the use and protection of land, increasing the efficiency of land use in the ecological sphere [5].

To analyze the environmental efficiency of agricultural land use, it is worth analyzing the environmental efficiency index (Fig. 1).

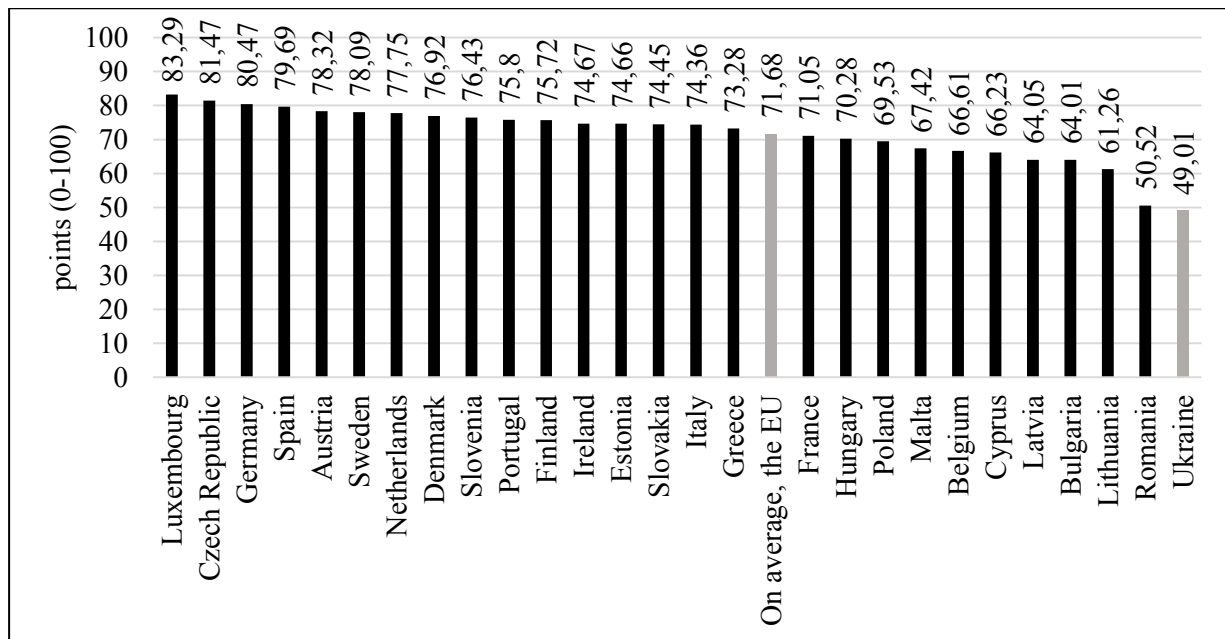


Figure 1. Integrated Environmental Performance Index (EPI) of EU countries  
Source: built by the author using [1]

This is a comprehensive indicator of the success of environmental policies of countries, which includes a large number of indicators characterizing such areas as air pollution, climate change and energy, water resources, agriculture, biodiversity, etc. According to this indicator, the higher the indicator, the higher the environmental efficiency. It is rated in the range from 0 to 100 points. The highest values are observed in countries such as Luxembourg (83.29), the Czech Republic (81.47) and Germany (80.47). The average for EU countries is 71.68. 16 EU countries have an indicator that is above the average. In the context of Ukraine's integration into the EU, it should be noted that the integral indicator of Ukraine's environmental efficiency is 49.01, which is the lowest indicator compared to all EU countries. This means that Ukraine faces a large number of environmental problems, which significantly affects the investment attractiveness of agricultural production.

After analyzing the total volume of greenhouse gas emissions in agriculture, we observe a situation in which the largest volume of emissions falls on Germany (22.5%), France (12.0%), Italy (11.5%) and Poland (11.1%). It should be noted that these 4 countries account for more than half of all greenhouse gas emissions in agriculture among the EU countries. The smallest volumes are observed in Malta, Cyprus, Luxembourg, Latvia, Estonia, Slovenia and Lithuania (each less than 1% of all EU emissions).

Over the past 30 years, almost all EU countries have significantly reduced greenhouse gas emissions. Thus, the largest reduction is observed in Estonia (by 72%), Latvia and Romania (by -59%), and Lithuania (by 58%). On average, EU countries have reduced greenhouse gas emissions by 32% over the past 30 years. However, some countries showed positive trends in emissions: Ireland (up 6%) and Cyprus (up 35%).

So, after analyzing the environmental aspects of sustainable land use of the EU countries, we conclude that it is now necessary to develop and implement

environmental and economic reforms, which includes the introduction of strict environmental standards and standards for individual industries and enterprises. It is necessary to develop sectors that contribute to reducing emissions and preserving biodiversity, to encourage the use of environmentally friendly technologies and production methods. According to the results of the analysis, it is proposed to optimize the targeted use of existing sources of financing for state programs, improve control over the rational use of natural resources, encourage investors to invest in environmentally friendly technologies and develop programs to increase public awareness of environmental problems and ways to solve them.

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**Анотація.** У роботі проведено дослідження екологічних аспектів сталого землекористування у країнах Європейського Союзу. Визначено, що наразі проводиться детальна робота щодо зменшення впливу факторів на екологію в країнах ЄС, що забезпечує сталий розвиток землекористування. Проаналізовано індекс екологічної ефективності, що показав, що більшість країн ЄС ґрунтовно підходять до питання збільшення екологічної ефективності в галузі сільського господарства.

**Ключові слова:** екологічні проблеми, стале землекористування, ЄС, екологічна ефективність.