

***Khalina Veronika***

*Candidate of Economic Sciences (PhD), Associate Professor  
Kharkiv National University of Civil Engineering and Architecture  
ORCID: 0000-0001-6753-6414*

***Butskiy Vyacheslav***

*Candidate of Engineering (PhD), Associate Professor  
Kharkiv National University of Civil Engineering and Architecture  
ORCID: 0000-0001-6735-7854*

***Ustilovska Anastasiya***

*Lecturer of Kharkiv National University  
of Civil Engineering and Architecture  
ORCID: 0000-0002-9297-7614*

## **ECOPROUREMENT IN ROAD CONSTRUCTION AS A TOOL FOR SUSTAINABLE DEVELOPMENT**

Reformation of the system of public relations has led to the recognition of the need to change the paradigm of public procurement. Harmonization of legislation and normative base with European standards requires the generation of new approaches and forms of interaction between government customers and business as a participant in procurement processes. Reforming the public procurement system has pushed for a revision of the concept of doing business, on the one hand, and, on the other hand, changing the attitude of government customers towards the procurement process in general, and recognizing the need to save on budget funds and, in particular, on tendering.

In addition, the implementation of the concept of sustainable development in the main regulatory documents that shape Ukraine's future course of change provides grounds for consolidating these principles in the procurement activities of government customers.

Ecoprocurement are designed to make consumption more environmentally friendly and, consequently, more qualitative, and to encourage the business to produce products that meet these criteria. thus, there is a need to develop a mechanism for implementing ecoprocurement, which will be adaptable and understandable for all participants in the procurement process.

**Keywords:** public procurement, ecoprocurement, adaptation, sustainable development.

**Халіна Вероніка**

*кандидат економічних наук, доцент кафедри економіки  
Харківського національного університету будівництва  
та архітектури*

**Буцький В'ячеслав**

*кандидат технічних наук, доцент кафедри механізації  
будівельного виробництва Харківського національного  
університету будівництва та архітектури*

**Устіловська Анастасія**

*викладач кафедри економіки Харківського національного  
університету будівництва та архітектури*

## **ЕКОЗАКУПІВЛІ В СФЕРІ БУДІВНИЦТВА ДОРІГ ЯК ІНСТРУМЕНТ СТАЛОГО РОЗВИТКУ**

Переформатування системи суспільних відносин призвело до визнання необхідності зміни парадигми здійснення публічних закупівель. Гармонізація законодавства та нормативної бази з європейськими стандартами потребує генерації нових підходів та форм взаємодії державних замовників та бізнесу, як учасника закупівельних процесів. Реформування системи публічних закупівель дало поштовх до перегляду концепції ведення бізнесу, з одного боку, та, з іншого, до зміни ставлення державних замовників до процесу закупівель загалом і визнання необхідності економії бюджетних коштів та проведення тендерів зокрема.

Крім того, впровадження концепції сталого розвитку в основні нормативні документи, які формують подальший курс України до змін, дає підстави закріплювати ці принципи і в закупівельній діяльності державних замовників.

Екозакупівлі покликані зробити споживання екологічнішим, а, відтак, якіснішим, і спонукати бізнес виробляти продукцію, яка відповідає цим критеріям. Таким чином, постає необхідність розробки механізму впровадження екозакупівель, який буде адаптовуваним та зрозумілим для всіх учасників закупівельного процесу.

**Ключові слова:** публічні закупівлі, екозакупівлі, адаптація, сталий розвиток.

The concept of public eco-procurement is defined in the Communication from the European Commission (COM (2008) 400) as “public procurement for environmental improvement” and “the process by which budget spending units seek to procure goods, products and services with better environmental performance throughout their lives. cycle compared to products of similar functional purpose. “

Eco-procurement is a voluntary mechanism, so each state and state authorities can determine the extent to which it is used to integrate environmental policy and improve the system of integrated environmental management.

Eco-procurement also has a significant impact on the development and implementation of energy-efficient and cleaner production technologies, and the improvement of environmental performance over the life cycle.

By using eco-procurement, public authorities can provide industry with real economic incentives to develop a green economy. Government and local governments, budgetary institutions play an important role in the national economy, contributing to the development of a wave effect on the market, ie by promoting and promoting the principles of sustainable development.

Having carried out a detailed paradigm analysis of the essence of the concept of public eco-procurement, the authors of this study focused on the following interpretation of this economic category [1], considering them as the purchase of goods, works and services with improved environmental characteristics and taking into account the full value of their life cycle and to ensure the needs of the public .

The basic algorithmic sequence of implementation of green purchases in Ukraine is presented in Figure 1.

Eco-experts name only two basic conditions for spreading a culture of sustainable procurement in Ukrainian state institutions: the desire of the customer, guided by Art. such criteria. On the other hand, they say, there are still some problems today. Even though a special discipline and even educational programs for the preparation of masters in procurement have been introduced in some HEIs, the practice of sustainable tendering procedures is still quite unpopular with government bodies.



Fig. 1. Algorithmic sequence of eco-procurement implementation

It is well known that the condition and quality of roads have a direct impact on the pace of economic development. The annual statistics of the Swiss organization The World Economic Forum shows that in Ukraine the improvement of the quality of pavement is not noticeable. In the current road quality rating, which is included in the Global Competitiveness Index (2017-2018), our country is in seventh position at the end and is in 130th place out of 137. Last year (2017) we were in 137th place out of 144 positions. According to the rating, roads in Mauritania, Yemen, Guinea, Madagascar, Haiti and the Congo are worse than in Ukraine. However, this rating was calculated according to 2016 data, so the calculation did not take into account large-scale repairs carried out throughout Ukraine. Last year, a record number of 2177 km of roads was repaired in Ukraine over the past 14 years. This year, according to Ukravtodor website, it is planned to repair up to 4000 km along with roads of local importance [2].

At the same time, the state agency agrees that a significant part of Ukrainian roads is in poor or close condition. According to Ukravtodor, unlike other countries in the rating, Ukraine has spent minimal years on financing roads in Ukraine. Almost no roads were repaired in the country, except for the period 2011-2012. Ukravtodor claims that during 2017

and the beginning of 2018 the road industry has undergone fundamental changes that will dramatically change the situation in the next five years [2]. In order to assess the situation with road construction procurement during 2017 - the first half of 2018, the purchases of 37 municipal utilities, which are subordinated to the city council of the regional center and are engaged in road works, that is repair and maintenance of city streets and highways, were investigated. Thus, for a year and a half, municipal enterprises engaged in repairing and servicing highways in regional centers and the city of Kyiv, 6297 tenders were held and more than UAH 10 billion were procured, with an average saving of 6.2% (Table 1).

Table 1

Purchasing activities of utility companies of Ukraine engaged in repair and maintenance of roads (Based on [2])

<b>Indicator</b>	<b>Number of tenders</b>	<b>Average number of participants</b>	<b>Announced (expected) value, thousand UAH</b>	<b>The amount of contracts, thousand UAH</b>	<b>Savings, UAH</b>	<b>Percentage savings</b>
Open bidding	1259	2,76	9475507,5	8626819,5	662682,5	6,99
Share,%	20		85	84	96	
Low-cost purchases	2586	2,20	347829,5	316725,5	30386,5	8,74
Share,%	41		3	3	4	
Negotiation procedure	224	1	900736,2	897255,6	3480,7	0,39
Share,%	4		8	9	1	
Reporting of the concluded contract	2262	1	480921,9	480527,2	-	
Share,%	36		4	5		
Together	6297		11171108,2	10287377,5	693068,94	6,20

The highest savings were achieved in subordinated procurement - 8.74%, where the highest number of tenders took place (41%). According to open bidding, which accounted for 20% of the total volume, the percentage savings amounted to 6.99%. Outside the competitive procedure, 40% of purchases were carried out (contract reporting procedure, negotiation procedure). With regard to cash purchases, it should be noted that 84% of purchases of highway KPs took place under the open bidding procedure for the total amount of contracts concluded UAH 8.63 billion. The volume of ancillary purchases amounted to only 3% for the amount of UAH 316.7 million, while other procedures made 14% of purchases [2].

The introduction of green procurement in Ukraine must meet a number of principles and criteria, which are enshrined in national law and recommended by international standards. In the table. 2 outlines the main types of impacts in the construction sector, which are offset by the use of green procurement and the criteria for their application.

Table 2

Basic aspects of eco-procurement in construction

Product Category / Services	Types of impact neutralized by the use of eco-procurement	Examples of eco-procurement criteria
Construction and maintenance of roads	Energy and water consumption, materials used, construction waste, air quality, noise and traffic	<ol style="list-style-type: none"> <li>1. Design and construction must provide low rolling resistance (within safety parameters).</li> <li>2. The building materials used should have less environmental impact and fewer resources.</li> <li>3. Specification of approaches to noise emission reduction at the stages of construction, use and operation.</li> <li>4. Increasing the durability of materials and reducing the need for maintenance.</li> </ol>

Below (Fig. 2) the mechanism of introduction of “green” purchases, their influence on the activity of market actors (namely social, environmental and economic factors of influence) and a generalization of advantages of the use of “green” purchases are presented.

The conducted research made it possible to form a mechanism of green procurement implementation that would be adaptable and understandable for all participants of the procurement process. The result of the implementation of such a mechanism is a triad of effects (impacts): social (consumer safety, respect for citizens’ rights to consume ecological products, improvement of working conditions); environmental (saving energy and resources, reducing environmental pollution, preventing climate change); environmental (increased investment, fair competition, economic growth).

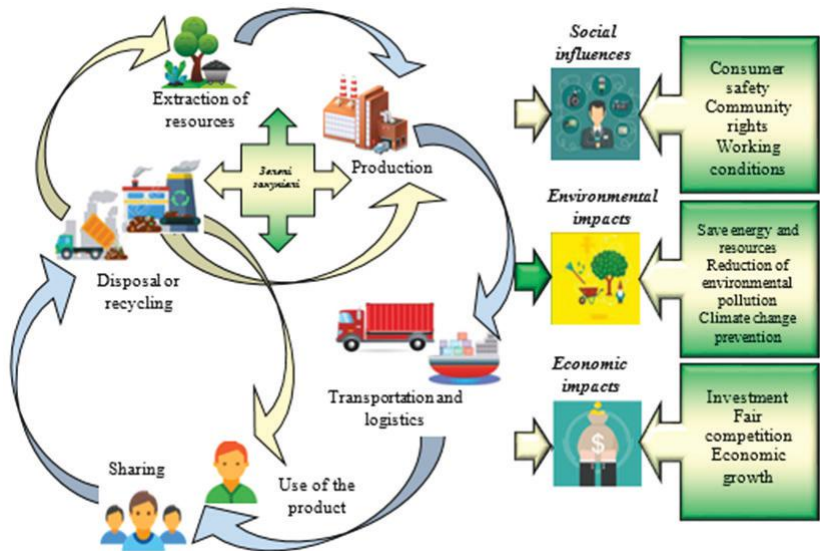


Fig. 2. The mechanism of eco-procurement implementation (compiled by authors)

Green procurement and the principles underpinning it should cover all stages of the product life cycle (resource extraction, own production,

transportation and logistics, product use, disposal or processing). If these conditions are met, the main goal will be to develop and operate on a sustainable basis.

#### ЛІТЕРАТУРА

1. Халіна В. Ю., Устіловська А. С., Гончаренко П. І., Ветрова В. В. Адаптація механізму впровадження «зелених» закупівель до вітчизняних економічних умов. *Ефективна економіка*. 2019. № 4. URL: <http://www.economy.nayka.com.ua/?op=1&z=7004>.

2. Що і як закуповують найбільші автодорожні комунальні підприємства. URL: <https://eidos.org.ua/novyny/scho-i-yak-zakupovuyut-najbilshi-avtodorozhni-komunalni-pidpriyemstva>.

#### REFERENCES

1. Khalina, V.Yu., Ustilovska, A.S., Honcharenko, H.I., Vetrova, V.V. (2019). Adaptacziya mekhanizmu vprovadzhennya «zelenikh» zakupivel do vitchiznyanikh ekonomichnikh umov. *Efektivna ekonomika – Efficient economy*, 4. URL: <http://www.economy.nayka.com.ua/?op=1&z=7004> [In Ukrainian].

2. Shho i yak zakupovuyut najbilshi avtodorozhni komunalni pidpriyemstva. URL: <https://eidos.org.ua/novyny/scho-i-yak-zakupovuyut-najbilshi-avtodorozhni-komunalni-pidpriyemstva> [In Ukrainian].

#### ***Клімова Галина Павлівна***

*доктор філософських наук, професор кафедри соціології та політології Національного юридичного університету*

*імені Ярослава Мудрого,*

*провідний науковий співробітник НДІ правового забезпечення*

*інноваційного розвитку НАПрН України*

*ORCID: 0000-0002-6533-199X*

## **ДОСЛІДНИЦЬКИЙ УНІВЕРСИТЕТ: ПРОБЛЕМИ СТАНОВЛЕННЯ І РОЗВИТКУ**

Розглядаються особливості інноваційного суспільства як нового типу соціального розвитку. Розкриваються проблеми становлення дослідниць-