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Current challenges in protecting the rights of seasonal agricultural workers in the EU and Ukraine

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Abstract

The study was devoted to a comparative analysis of legal instruments for protecting the labour rights of seasonal workers in agriculture in Ukraine and the European Union. It was found that a significant proportion of workers in this category remain outside the scope of legal regulation, which complicates access to social guarantees such as health insurance, paid leave and pensions. The practice of concluding employment contracts in writing, although required by law, is often ignored, creating unequal working conditions and complicating the protection of workers' rights. The regulation of leave and working hours does not take into account the specifics of seasonal work, forcing workers to work without adequate rest, which affects their physical and mental health. Polish law requires written employment contracts for seasonal workers, which guarantees transparency in labour relations, and a special law ensures their access to medical, pension and other social guarantees through mandatory registration in the social insurance system. Noteworthy are the provisions of German law, which establishes equal working conditions for seasonal and permanent workers, obliging employers to ensure remuneration not lower than the level set for permanent staff, as

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well as to provide access to social guarantees, including opportunities for professional development. European directives have set high standards for worker protection, including written information on working conditions, mandatory paid leave and clear rules on working hours. Adapting European standards to Ukrainian legislation will help reduce informal employment, improve working conditions and strengthen social protection for workers, ensuring greater stability in the labour market

Keywords: labour relations; social guarantees; working time; transparency; informal employment

Introduction

Agriculture plays a significant role in the economies of many countries, providing a considerable number of jobs. At the same time, seasonal workers, who form the backbone of agricultural labour, face a number of challenges that require legal solutions. Seasonal employment is highly dependent on natural conditions and limited in duration, which complicates the protection of workers' rights. Therefore, studying the legal protection of seasonal workers in the agricultural sectors of Ukraine and the European Union (EU) is essential for adapting best practices and standards aimed at improving working conditions.

Seasonal work is characterised by a low level of formalisation, which makes workers more socially vulnerable. Informal employment remains a significant challenge, as weak state control contributes to systematic violations of labour rights. K. Bondarevska (2020) studied this aspect, focusing on administrative mechanisms to overcome the problem. The conclusions emphasised the need to strengthen state control. However, the researcher's work does not adequately cover the social consequences of informal employment, such as limited access to holidays or insurance payments, which creates additional challenges for workers. In addition, issues related to the level of development and the causes of informal employment in Ukraine's seasonal sector remain underexplored.

The intensity of work in the seasonal sector often exceeds the physical capacities of workers, creating risks to their health. A. Radzividlo (2020)

analysed this problem, emphasising the need to introduce regulations on working time and rest periods. The study highlighted a direct link between labour intensity and reduced productivity. At the same time, the issues of overtime compensation remain unresolved, and there is a lack of clear recommendations regarding minimum rest periods, which are crucial for reducing physical and psychological strain in seasonal sectors.

The implementation of European directives on seasonal labour demonstrates strong potential for improving employment conditions. European standards, such as Directive of the European Parliament and of the Council No. 2003/88/EC (2003), are important tools for establishing clear rules on working time and minimum leave. N. Volkova (2020) and T. Kortukova (2021) noted the effectiveness of these standards in reducing worker fatigue in EU countries. The authors also stressed the importance of clear regulation of working time, minimum weekly rest, and the right to paid leave. However, their research paid little attention to the absence of clear enforcement mechanisms in legal systems with high levels of informal employment, such as Ukraine. The importance of minimum rest standards, which directly affect the rights of workers in seasonal sectors, has also not been sufficiently explored.

In EU countries, employers are required to provide workers with clear information about their rights and obligations, including employment conditions and social guarantees, thereby

ensuring transparency. D. Lomey (2021) notes that such transparency significantly reduces the risk of conflict and infringements, enhances trust between parties to labour relations, and contributes to employment stability. In Ukraine, however, the absence of clear requirements for informing workers creates legal gaps that hinder access to rights protection mechanisms. This is particularly true in seasonal sectors, where workers often operate under short-term contracts or without proper documentation, leaving them without guarantees or protection. The question of introducing mandatory worker information systems remains under-researched, particularly in terms of its potential impact on reducing legal and social risks in the Ukrainian context.

Social insurance is one of the key elements of worker protection, but access to insurance programmes for seasonal workers remains significantly limited. O. Pohorielova (2020) and M. Krushelnytskyk (2020) emphasise the need to reform existing systems. They offer general recommendations, but there is a lack of specific implementation mechanisms, such as funding for off-season training or subsidies for employers. In addition, it would be worth considering the creation of special insurance funds to cover the risks associated with the seasonal nature of work.

The issue of adapting social standards in agriculture is relevant for ensuring the rights of seasonal workers. L. Bodenchuk *et al.* (2023) emphasised the importance of introducing social insurance mechanisms that would meet the needs of temporary employment. The lack of targeted programmes to compensate for the risks of seasonal work increases the social vulnerability of this group. Aspects of providing seasonal workers with social insurance that would cover specific risks, in particular inadequate working conditions, high physical intensity and employment instability, remain unexplored, which is necessary to understand the real level of social

protection of workers in seasonal sectors and the possibilities of adapting international experience to Ukrainian legislation.

The issue of workplace safety and social insurance for workers in seasonal sectors remains one of the key issues in the field of labour relations. V. Pasichnyk (2021) analysed this topic, focusing on the importance of implementing occupational safety standards, in particular regular training of workers, ensuring adequate technical equipment and creating insurance mechanisms to compensate for the risks associated with seasonal work. This work highlights the positive impact of such measures on reducing injury rates and increasing labour productivity. At the same time, the study is limited to an analysis of existing safety and insurance systems without taking into account the need to adapt them to the specific conditions of the seasonal sector, such as high staff turnover and short-term employment.

The aim of the study was to review the legal mechanisms for protecting the labour rights of seasonal workers in Ukraine and the EU, with a view to harmonising national legislation with European standards. The objectives were to evaluate the current legislation of Ukraine and European Union countries (Poland and Germany), identify local features of legislative regulation that affect the implementation of international standards in the field of labour, and develop recommendations for state bodies and employers on improving legal regulation mechanisms.

Materials and Methods

The study included a comparative analysis of Ukrainian and European Union legislation regulating the rights of seasonal workers in the agricultural sector. The study focused on legal mechanisms designed to protect labour rights, social guarantees and occupational safety. To this end, an approach was used that allows the effectiveness of the implementation of regulations in

different legal systems to be identified by integrating data on their practical application.

Within the framework of Ukrainian legislation, the study was based on an analysis of three key regulatory acts governing the rights of seasonal workers. The Code of Laws on Labour of Ukraine (1971) was examined to determine basic labour guarantees, in particular regarding working conditions, working hours and social protection mechanisms. Law of Ukraine No. 504/96-VR (1996) was studied to assess the procedure for granting paid and unpaid leave, as well as its availability to seasonal workers, taking into account the specifics of their employment. Resolution of the Cabinet of Ministers of Ukraine No. 278 (1997) was analysed to determine the list of seasonal jobs and industries covered by it and to clarify the practical aspects of applying these rules to workers in the agricultural sector. A comprehensive study of these documents made it possible to carry out an evaluation of the level of regulation of labour relations in the field of seasonal employment in Ukraine and to identify possible areas for improvement in legislation.

In the context of the European Union countries, two examples were selected – Germany and Poland. Analysis of the Labor Code of Poland (1974) and Law of Poland No. 137 (1998) helped to identify the norms governing the rights of workers during the period of seasonal employment in the agricultural sector. The Law of the Federal Republic of Germany “On the Regulation of the Supply of Temporary Workers” (1995) was studied to assess mechanisms for protecting workers’ rights, including the prevention of discrimination and control over working conditions. Both documents served as a source for comparing the legal regulation of seasonal employment and identifying opportunities for adapting positive experience in Ukrainian legislation.

European Union regulations, such as Directives of the European Parliament and of

the Council No. 2003/88/EC (2003) and No. 2019/1152 (2019), were carefully analysed to determine their role in shaping European standards for the protection of workers’ rights. Directive of the European Parliament and of the Council No. 2019/1152 (2019) became the basis for researching the requirements for mandatory information for employees about their working conditions, which ensures transparency in labour relations and minimises the risk of violations. Directive of the European Parliament and of the Council No. 2003/88/EC (2003) made it possible to identify standards that regulate working hours, establish weekly rest periods and minimum leave for seasonal workers in the agricultural sector.

Analytics from the International Labour Organisation (ILO) (Miheš, 2023) made it possible to evaluate the compliance of national regulations with international labour standards, highlighting gaps in the legal protection of seasonal workers, particularly in terms of access to social guarantees and the regulation of working conditions. Eurostat data (2024) provided quantitative information on the volume of seasonal employment, the share of Ukrainian workers among third-country nationals who obtain work permits in the EU, and the structural features of demand for seasonal labour in European Union countries.

Results

The large-scale involvement of migrant workers, the globalisation of the labour market and the impact of climate change have a particular impact on seasonal employment, creating conditions that contribute to an increase in informal employment. In 2020, more than 4 million people, or 26.5% of the economically active population, were informally employed in Ukraine (Informally employed..., 2022). Seasonal workers, who are usually among the most vulnerable categories, often remain outside the scope of legal

regulation, which deprives them of access to social guarantees such as minimum wage or paid leave. This creates significant challenges for effective social policy. Informal employment of seasonal workers leads to a lack of social insurance, which deprives them of their right to medical care and pensions, as well as low wages that often do not meet minimum standards. In such conditions, revising the legal regulation of temporary employment is a key task for improving the working conditions of seasonal workers.

The insufficient consideration of the specific nature of seasonal workers' labour in the Code of Laws on Labour of Ukraine (1971) creates risks for the proper regulation of labour relations. Article 7 stipulates that the regulation of the specific nature of temporary and seasonal workers' labour must be ensured by other legislative acts. However, the Code does not contain criteria that would define the differences between seasonal and temporary workers. For example, it does not regulate which jobs can be considered seasonal, nor does it provide mechanisms to ensure mandatory social guarantees for this category of workers (Federation of Trade Unions of Kirovograd Region, 2019). The absence of such provisions allows employers to abuse fixed-term contracts, which puts seasonal workers at a disadvantage compared to other categories.

Employment contracts for seasonal workers must be concluded in writing, which is a mandatory requirement of Article 24 of the CLLU (1971). Despite this, practice shows that a significant proportion of employers disregard this rule. According to the latest report published by the State Statistics Service, in 2021, 3,061,600 people were informally employed in Ukraine, which is 19.8% of all employed persons, i.e. almost one in five workers (Informally employed..., 2022). This deprives such workers of legal grounds for protecting their rights, contributing to the spread of informal employment.

The establishment of clear rules on working hours is an unregulated issue. Article 56 of the CLLU (1971) provides for the possibility of an agreement between the employer and the employee on part-time work and a part-time working week. However, the absence of a minimum guaranteed number of working hours creates conditions under which workers are forced to work in unstable economic conditions. In 2021, the average income of seasonal workers in Ukraine was 25% lower than the national average, demonstrating the economic vulnerability of this category of workers (Informally employed..., 2022).

Seasonal workers in Ukraine face restrictions on their right to leave, as laid down in the provisions of Law of Ukraine No. 504/96-VR (1996). Article 6 of this law regulates the duration of annual paid leave, which depends on the duration of the employment relationship. If an employee has been employed for three months, their leave will be only six days, which is the minimum portion of the guaranteed 24 calendar days. In the case of seasonal work, where the intensity of labour is usually higher due to the short duration of the tasks, such a restriction significantly reduces the opportunities for workers to recover their health and productivity. Regulations limiting the duration of leave create an imbalance between the employee's need for rest and the employer's requirements for the effective performance of duties (Federation of Trade Unions of Kirovograd Region, 2019).

The mechanism for granting unpaid leave also fails to take into account the specific nature of seasonal employment. In particular, Article 25 allows employees to take unpaid leave for family reasons or other valid reasons (Law of Ukraine No. 504/96-VR, 1996). For many seasonal workers who do not accumulate enough days of paid leave due to the short-term nature of their work, this provision is perhaps the only opportunity to take a break. However, unpaid leave does not meet the needs of low-income workers, forcing them to

work without breaks even under conditions of significant physical exertion. In 2023, more than 27,000 citizens complained to the State Labour Service of Ukraine (2023) about various violations, including failure to provide adequate paid leave, indicating that the lack of an effective mechanism for protecting labour rights increases the vulnerability of workers, particularly those who work seasonally.

The level of formalisation of labour relations significantly affects the accessibility of the right to leave. Many employers avoid formalising employment contracts with seasonal workers in order to reduce costs associated with social guarantees, including leave. According to the Pension Fund of Ukraine (2023), in 2023, signs of possible violations of labour legislation were detected in more than 434,000 insured persons, indicating the prevalence of informal employment. This means that a significant proportion of workers, especially those performing temporary tasks, are denied access to paid leave guaranteed by law. At the same time, their informal status deprives them of the opportunity to take advantage of legal mechanisms such as official protection of labour rights, social insurance, accumulation of insurance experience for pension provision, and guarantees of receiving the minimum wage. This complicates the protection of their rights and creates additional social risks.

Resolution of the Cabinet of Ministers of Ukraine No. 278 (1997) approves a list of seasonal jobs in various sectors of the economy, including agriculture, forestry and processing industries. This list defines activities that are seasonal in nature, such as work related to the cultivation and harvesting of agricultural products, forestry, and the processing and storage of raw materials. The resolution provides a regulatory framework for the classification of seasonal work, which is important for the regulation of temporary employment. However, agricultural activities include

mechanised equipment management, work in greenhouse complexes, and the use of automation technologies. The absence of these types of activities from the list creates gaps in the legal protection of workers engaged in these newer forms of agricultural work.

Resolution of the Cabinet of Ministers of Ukraine No. 278 (1997) approves the list of seasonal work, but does not regulate compliance with labour legislation when hiring seasonal workers. It would be appropriate to include a requirement for mandatory compliance with labour legislation in this resolution, as it concerns a specific segment of labour with a high risk of informal employment. Such a provision would help to ensure the rights of seasonal workers, including the mandatory conclusion of written employment contracts, which is a key protection mechanism. This would be particularly important for small and medium-sized agricultural enterprises, which often avoid formally registering workers due to limited resources, leaving them outside the social insurance system.

In Ukraine, the occupational safety regulations enshrined in Law of Ukraine No. 2694-XII (1992), although they provide for general safety standards, do not take into account the specific nature of seasonal work. The "Rules for Occupational Safety in Agricultural Production" (Order of the Ministry of Social Policy of Ukraine No. 1240, 2018), approved by order of the Ministry of Social Policy, provide for mandatory training and instruction of employees on occupational safety issues, in particular for those who operate mechanised equipment. At the same time, the lack of clear instructions on mandatory periodic training or certification creates gaps in worker protection. In Ukraine, there are vocational training programmes for agricultural machinery operators, such as courses for category "B1" tractor drivers (Theoretical offline training..., 2024) and initiatives to retrain women in this field (Open

competition for participation..., 2024). However, the lack of mandatory requirements for regular professional development creates risks for occupational safety, especially when working with machinery or handling agricultural chemicals.

The main mechanisms for stimulating the agricultural sector in Ukraine, such as financial assistance, preferential taxation and regulation of the agricultural market, are enshrined in Law of Ukraine No. 1877-IV (2004). Sections IV-V2 of this document define the types of state support for agricultural enterprises, covering compensation for costs associated with production cycles and the procedure for providing budget subsidies to producers. However, specific aspects of the work of seasonal workers, who are key performers of many field tasks, remain outside the scope of legislative regulation. Although seasonal workers perform a significant part of the tasks, such as harvesting, caring for crops and primary processing of products, their work does not receive adequate legal support. This applies in particular to the lack of clear provisions on ensuring their labour rights, in particular the conclusion of employment contracts and occupational safety. Social programmes in Ukraine face challenges in identifying the real needs of applicants, leading to inefficient resource allocation. This is particularly relevant for seasonal workers, whose specific needs related to the temporary nature of their work are not taken into account in existing programmes. Such limitations highlight the insufficient integration of social aspects of labour into the legal regulation of the agricultural sector (Makarova, 2013).

To consider effective approaches to regulating the labour of seasonal workers, one can refer to the legislation of other countries, such as Poland, which provides clear rules for the protection of labour rights. Article 29 of the Labour Code of Poland (1974) requires employers to conclude employment contracts in writing before the

employee starts work. If the contract is concluded orally, its terms must be confirmed in writing on the day the employee starts performing their duties. Article 281 specifies penalties for employers who violate labour legislation. In particular, an employer may be fined for concluding a civil law contract under conditions that require an employment contract, or for failing to provide written confirmation of the contract. Article 281 also establishes penalties ranging from PLN 1,000 to PLN 30,000 for violations of other regulations, such as working hours, granting leave or preserving the rights of employees with parental responsibilities.

As the agricultural sector is highly seasonal, leading to unstable employment conditions for workers, particularly due to the temporary nature of the work, employers often avoid formalising employment relationships, citing short-term employment or economic unviability as reasons. In such conditions, workers are deprived of access to social guarantees such as health insurance, paid leave or compensation in the event of accidents at work. The conclusion of written employment contracts, as provided for in the Labour Code of Poland (1974), allows for the regulation of relations between the employee and the employer even in the context of short-term employment. This ensures a clear definition of the rights and obligations of the parties, which reduces the risks of exploitation and contributes to the protection of workers in the unstable conditions of seasonal work.

Article 6 of Law of Poland No. 137 (1998) defines the social insurance obligation for persons working under an employment contract, including seasonal workers. It stipulates that all employees must be registered in the social insurance system to receive pension benefits, health insurance, and insurance in case of illness and accidents. This provision guarantees workers' access to social services and creates conditions for minimising informal employment. In addition, the law requires employers to notify the Social Insurance

Institution of Poland (The Social Insurance Institution, n.d.) when hiring an employee. Registration must be completed within 7 days of the start of employment (How to employ..., n.d.). This provision ensures transparency in labour relations and increases the social security of employees. This mechanism creates guarantees for seasonal workers, reducing their economic vulnerability, which usually arises from employment instability.

For comparison, in Ukraine, the conclusion of employment contracts is a mandatory requirement under Article 24 of the CLLU (1971), which stipulates that an employment contract must be in writing in cases provided for by law. However, in practice, this rule is often ignored, especially in the field of seasonal employment, due to the lack of an effective control mechanism and sanctions for non-compliance (Tsymbal, 2017). In Poland, Article 29 of the Labour Code of Poland (1974) stipulates that all terms and conditions of employment must be documented before the employee starts work. In addition, violations of this provision are punishable by significant fines under Article 281, which ensures transparency in labour relations and minimises the risks of informal employment.

Ukrainian legislation also does not oblige employers to provide social insurance for seasonal workers, depriving them of basic social guarantees such as health insurance and compensation for industrial injuries. Law of Poland No. 137 (1998) requires employers to register workers in the social insurance system, which guarantees them access to pensions and other social services, even if they are employed on a temporary basis.

The Law of the Federal Republic of Germany "On the Regulating the Supply of Temporary Workers" (1995) clearly regulates the rights of workers performing short-term or seasonal work, including in agriculture. Paragraph 8 provides for equal working conditions for temporary workers. This means that the employer is obliged to

provide remuneration that cannot be lower than the level set for permanent staff. Workers also have access to the same social guarantees as permanent employees, including opportunities for professional development. This rule applies to all sectors, including agriculture, where seasonal workers often perform tasks that are physically demanding. In 2024, the total number of employees in agriculture was 876,000, of whom 28% were employed on a seasonal basis, representing approximately 243,000 people (Federal Statistical Office, 2024). This highlights the significant role of seasonal workers in the functioning of the industry, and the above provisions ensure their social protection.

Paragraph 7 of the Law of the Federal Republic of Germany "On the Regulation of the Supply of Temporary Workers" (1995) obliges temporary employers to notify the licensing authorities of changes in their activities, such as the establishment, closure or relocation of enterprises, and to provide the information necessary for the implementation of the legislation. Employers must also keep records for three years, allowing regulatory authorities to verify compliance with working conditions standards. This paragraph provides for the possibility of conducting inspections to establish compliance with current standards, which ensures effective control over the observance of workers' rights. This creates conditions for transparency in labour relations and contributes to the protection of seasonal workers employed in sectors with short-term employment, such as agriculture, by providing them with access to social guarantees.

The absence of a separate law in Ukraine similar to the AÜG complicates the coordination of activities between employers and state authorities in matters relating to the protection of seasonal workers' rights. The German approach provides for clearly defined monitoring and reporting mechanisms that ensure transparency and control over working conditions. In Ukraine, however,

the obligation to provide information to regulatory authorities or to keep records of working conditions by employers is not regulated, which leads to less effective control over the observance of workers' rights. In the agricultural sector, where temporary workers often perform important tasks, this legislative gap deprives them of opportunities to protect their rights, while in Germany, the reporting and inspection system reduces the risk of violations and promotes better coordination between employers and regulatory authorities (Boeri & Garibaldi, 2024).

The ranking developed by the International Trade Union Confederation (ITUC) (2024) allows for an evaluation of the level of compliance with labor rights in different countries, including the rights of seasonal workers, who are usually one of the most vulnerable groups due to the temporary nature of their employment. The ranking takes into account criteria such as the level of informal employment, access to mechanisms for

protecting rights, and the possibility of recourse to the courts in the event of violations. The level of protection for seasonal workers in the three countries analysed differs significantly in terms of legal control, as confirmed by the data in Table 1. In Germany, legislation requires employers not only to comply with working conditions, but also to actively cooperate with regulatory authorities through regular reporting and inspections. These rules even apply to employers in the agricultural sector, where seasonal workers perform physically demanding tasks. Poland, although it has clear requirements for employment contracts, lags behind Germany due to a lack of systematic monitoring by state authorities. In Ukraine, monitoring of compliance with working conditions is limited by the resources of the labor inspectorate, which reduces the effectiveness of detecting violations and increases the risk of exploitation of seasonal workers (International Trade Union Confederation, 2024).

Table 1. Comparison of workers' rights protection based on the 2024 International Trade Union Confederation ranking

Country	Rating	Key issues for seasonal workers	Worker protection
Ukraine	5 (No guarantees of rights)	Limited access to social guarantees due to the high proportion of informal employment.	No mandatory registration of seasonal workers in the social insurance system; inspections are conducted irregularly.
Poland	3 (Regular violations)	Regular inspections of working conditions, but lack of full transparency in seasonal sectors.	Mandatory conclusion of written employment contracts; access to pension, health and accident insurance.
Germany	1 (Occasional violations)	Guaranteed social rights and working conditions for all workers, including seasonal workers.	Registration of workers in social insurance is mandatory; regular monitoring of employers' compliance with working conditions standards.

Notes: Countries in the ITUC ranking are assessed on a scale from 1 to 5+, where 1 is the best and 5+ is the worst

Source: Developed by the author based on the International Trade Union Confederation (2024)

Significant differences are also observed in the provision of access to compensation in the event of accidents. In Germany, legislation stipulates compulsory insurance for all workers, which guarantees them access to compensation regardless of the duration of their employment. In Poland, a similar system operates through

the Social Insurance Institution (n.d.), but workers without formal contracts remain vulnerable. In Ukraine, however, the absence of mandatory registration of workers in the social insurance system deprives them of the possibility of receiving adequate protection in the event of accidents, creating additional economic risks for seasonal

workers and hindering the stable functioning of the labour market.

The regulatory and legal acts of the European Union establish high standards for the protection of labour rights, which is particularly important for workers in the seasonal agricultural sector. Directive of the European Parliament and of the Council No. 2019/1152 (2019) is aimed at guaranteeing workers clear information about the conditions of their employment. It obliges employers to provide employees with written contracts containing key provisions: duration of employment, working schedule, remuneration, and available social guarantees. This is especially relevant for seasonal workers employed on a short-term basis, since the absence of written agreements can lead to violations of their rights.

Directive of the European Parliament and of the Council No. 2003/88/EC (2003) focuses on the regulation of working time, minimum leave, and weekly rest. It sets the maximum working week at 48 hours, including overtime, as stipulated in Article 6. Article 7 provides that every worker is entitled to paid leave of no less than four weeks. Article 5 further guarantees a minimum of 24 hours of uninterrupted weekly rest, as

well as a minimum daily rest period of 11 consecutive hours. In agriculture, where workers often face intense workloads, these norms are crucial for maintaining their physical and psychological health. Countries that comply with the provisions of this directive have lower levels of occupational burnout among seasonal workers (Leccese, 2022).

Ukrainian legislation has gaps compared with EU standards in the field of informing workers about the terms of their employment. Although Article 24 of the Code of Laws on Labour of Ukraine (1971) requires the conclusion of a written employment contract in certain cases, it does not establish a clear requirement that workers must receive comprehensive written information about all conditions of employment, such as working hours, additional payments, or contract termination terms. Article 50 of the CLLU regulates working time, setting a maximum limit of 40 hours per week, as shown in Table 2. However, this provision does not take into account the specific nature of seasonal work, which requires more flexible schedules. The absence of clear provisions on minimum weekly rest, which are mandatory in the EU, also reduces the level of protection for workers in this category.

Table 2. Comparative analysis of provisions of European and Ukrainian legislation on the protection of seasonal workers

Provisions	Directive of the European Parliament and of the Council No. 2019/1152 (2019)	Directive of the European Parliament and of the Council No. 2003/88/EC (2003)	Code of Laws on Labour of Ukraine (1971)
Written information	Mandatory	Not regulated	Absent
Maximum working time	Not regulated	48 hours per week	40 hours per week
Minimum paid leave	Not regulated	Four weeks	24 calendar days
Weekly rest	Not regulated	24 hours	Not specified
Flexibility of working schedule	Not regulated	Adaptation provided	Absent

Source: compiled by the author

Social standards are key to ensuring an adequate level of protection for seasonal agricultural workers. The practical implementation

of these standards depends significantly on legal regulation, state control, and the adaptation of international experience (Bruzelius &

Seeleib-Kaiser, 2023). International organisations, such as the ILO or Eurostat, serve as important benchmarks for assessing the effectiveness of national regulations and implementing changes that meet the needs of the labour market as established by EU law.

The ILO regularly publishes reports that analyse the compliance of national regulations with international labour standards. The 2024 ILO report highlights that in Central and Eastern European countries, including Ukraine, the lack of effective legal protection for temporary workers significantly hinders their access to social guarantees and stable working conditions (Miheș, 2023). Inadequate regulation of seasonal workers' labour creates risks of exploitation and increases the level of informal employment, which is a key obstacle to integrating these workers into the formal labour market. The implementation of international standards, such as mandatory written notification of working conditions, providing social security for all categories of workers, and actively representing their interests through social dialogue, will help reduce informal employment and create conditions for strengthening the legal protection of seasonal workers.

According to Eurostat (2024) data for 2023, EU countries issued 191,840 seasonal work permits to non-EU citizens, of which 8,693 permits (4.5%) were granted to Ukrainian citizens, placing Ukraine in fourth place for this indicator. This fact shows that a significant number of Ukrainian seasonal workers seek employment abroad, which indicates a lack of trust in the national labour market and legal system. The main reasons for this are insufficient regulation of working conditions, a lack of mandatory social guarantees for seasonal workers, and inadequate control over the enforcement of labour legislation (Pikulyk, 2020). Such conditions force workers to seek better opportunities in EU countries, where clear mechanisms exist to protect their rights, which

points to the need to reform Ukrainian labour law to create competitive working conditions.

In conclusion, it is important to emphasise the need to implement comprehensive legal mechanisms that will ensure the proper protection of the rights of seasonal workers and the compliance of national legislation with international standards. In particular, the Code of Laws on Labour of Ukraine (1971) needs to be amended to include requirements for mandatory written notification to employees about working conditions, a clear regulation of the minimum weekly rest time, and the implementation of flexible work schedule standards for seasonal workers.

The introduction of mechanisms in Ukraine that provide for mandatory social security for seasonal workers is a necessary step to create transparent and fair working conditions. This measure will help reduce the share of informal employment that dominates the agricultural sector and provide workers with basic social guarantees, such as access to healthcare, pension insurance, and compensation in case of accidents. Furthermore, the introduction of mandatory written contracts specifying clear working conditions, such as work schedules, rest periods, and pay levels, will help improve the level of legal protection for workers. The establishment of penalties for violating this requirement, as in Poland, will strengthen employers' accountability. To increase the protection of seasonal workers' rights, it's also necessary to supplement the provisions of the Law of Ukraine No. 2694-XII (1992) with requirements similar to German law on establishing equal working conditions for such workers and to impose an obligation on employers to notify permitting authorities of changes in the organisation of labour.

Discussion

Seasonal employment in the agricultural sector plays an important role in meeting production

needs and economic development. However, identified problems affect the working conditions of employees and the effectiveness of legal regulation in this area. In particular, this applies to the high level of informal employment, inadequate social protection, limited access to modern technologies, short-term contracts, and low legal awareness among workers. These challenges require further research and the development of effective solutions.

The study revealed problems related to the legal regulation of seasonal employment in the agricultural sector of Ukraine. A significant level of informal employment makes it difficult to comply with labour standards. Workers who are not officially registered are deprived of access to social guarantees. The analysis by A. Reihlen *et al.* (2022) and C.S. Caxaj *et al.* (2023) shows that similar problems are typical for developing economies, where the lack of social insurance increases the vulnerability of workers. A comparison of these results indicates that the implementation of mandatory social insurance in Ukraine could significantly reduce the level of informal employment. In addition, such an initiative would increase the level of social protection for workers, providing them with access to basic social guarantees, including accident insurance.

Workplace safety is a significant challenge in the seasonal agricultural sector, where working conditions are often associated with high physical exertion and increased risks. In Ukraine, there are no clear standards for training workers on labour protection, which creates significant threats to their health. The studies by L. Kovačević (2023) and D.B. Anong (2023) state that regular training of workers is key to reducing the risk of injuries and increasing safety in production processes. A comparison of this data shows that the implementation of mandatory training and certification for seasonal workers is necessary, as this will not only improve labour safety but also increase

overall productivity in the industry, ensuring compliance with international standards.

Social standards in Ukraine remain insufficient to provide basic guarantees for seasonal workers, which creates significant challenges for ensuring stable employment relations. Insufficient regulation of pay, limited access to social guarantees, and the uncertainty of employment conditions increase the economic vulnerability of workers. The studies by V. Passalacqua (2022) and V. Mantouvalou (2022) state that transparent working conditions, which include clearly established rules for pay and minimum guarantees, are key to attracting workers to the formal sector. Such conditions create the prerequisites for reducing the risks of exploitation, stabilising the labour market, and improving the legal protection of workers. The results obtained, in contrast, show that the implementation of appropriate changes in social standards will also improve working conditions for seasonal workers, reduce the level of informal employment, and encourage employers to comply with minimum labour guarantees.

The lack of clear requirements for the written formalisation of employment contracts significantly complicates the enforcement of seasonal workers' labour rights, depriving them of the opportunity to use social guarantees and legal protection. The practice of employers avoiding official formalisation of relations creates conditions for violations that are difficult to prove or correct. The studies by C. Bruzelius and M. Seelieb-Kaiser (2023) and V. Fasone *et al.* (2024) emphasise that mandatory written conclusion of contracts ensures transparency in employment relations and protects workers from abuse. In contrast, the experience of Poland, where employers are obliged to conclude employment contracts in writing, and non-compliance with this requirement is punishable by fines, demonstrates the effectiveness of such approaches. In Ukraine, the introduction of similar liability will contribute

to improving the working conditions of seasonal workers, protecting their rights and ensuring the stability of employment relations.

Another challenge for seasonal workers is ensuring the right to a holiday, which is often limited in current conditions. Seasonal work involves intense physical exertion over a short period, which requires regular rest to maintain health and productivity. However, existing regulations grant workers employed for up to three months only six days of paid holiday, which significantly reduces the opportunities for them to recuperate. The studies by T. De Lange and M. Falkenhain (2024) and I. Thiermann *et al.* (2024) confirm that similar limitations create an imbalance between workers' need for rest and employers' demands, especially in sectors with a high level of physical exertion. The results also indicated that the lack of opportunity to get a full holiday increases the risk of professional burnout and reduces long-term productivity. The implementation of international standards that provide for longer paid holidays will not only reduce the burden on workers but also create conditions for improving their situation and stabilising employment relations in seasonal sectors.

Modern technology can significantly improve working conditions in the agricultural sector, particularly for seasonal workers. However, the study results indicate significant gaps in the legal regulation of this area. It was found that many types of activities that are actively being implemented in agriculture, in particular work with mechanised equipment or greenhouse complexes, are not covered by current regulations, which creates gaps in the protection of workers. The studies by L. Berntsen *et al.* (2023) and E. Brameshuber and A. Sagan (2023) state that the automation of processes is an important factor in increasing productivity and reducing the risk of injury. The results show that in Ukraine, the lack of a regulatory framework for regulating such types of activities leaves

workers without proper protection and working conditions, which contrasts with the authors' recommendations for integrating standards for new technologies. The use of similar mechanisms will ensure a safe environment for workers and contribute to the development of the industry.

Workers' awareness of their rights remains a serious challenge in the field of seasonal employment. The lack of mandatory reporting and control mechanisms that would oblige employers to document working conditions and provide information to regulatory bodies significantly complicates the protection of workers' rights. The studies by C. Caxaj *et al.* (2022) and L. Campos-Flores and A.L. Rosales-Mendoza (2023) emphasise that insufficient transparency in employment relations creates conditions for violations, such as the absence of social guarantees or non-payment of wages. The results obtained indicate that in Ukraine, a similar lack of regulatory requirements complicates the monitoring of compliance with labour standards, especially in sectors with short-term employment, such as agriculture. In contrast, in Germany, mandatory reporting and inspection mechanisms have been introduced that help protect workers' rights and increase transparency in employment relations, which has a positive effect on working conditions and ensures workers' access to basic social guarantees.

The level of social protection for seasonal workers in Ukraine remains insufficient, which creates significant risks to the stability of employment relations. The studies by K. Kotulovski and S. Laleta (2021) and V. Bogoeski and Z. Rasnača (2023) emphasise that access to social security is the basis of workers' economic stability, especially in the agricultural sector. An analysis of the data shows that in Ukraine, most seasonal workers are deprived of such guarantees, which increases their vulnerability to economic risks. A comparison shows that the introduction of mandatory social security in Ukraine could significantly

improve the situation by providing workers with access to basic social services such as health insurance and pension provision. This would also help attract more workers to the formal sector, creating more stable working conditions.

Insufficient attention to issues related to the duration of working hours for seasonal workers creates significant challenges. According to the study results, the lack of clear norms that regulate the minimum duration of working hours leads to unstable working conditions. The works of S.M. Taggart *et al.* (2023) and A. Jafari *et al.* (2024) emphasise that the implementation of mandatory working hour standards contributes to the stability of employment relations and an increase in worker welfare. An analysis of the results indicates that such an initiative in Ukraine could improve the financial situation of workers by providing them with a guaranteed minimum income level and creating more favourable conditions for working in seasonal sectors. In conclusion, the study results highlight the need to reform the legal regulation of seasonal employment. The main areas for improvement include raising social standards, ensuring labour safety, mandatory formalisation of employment contracts, and expanding access to technology and worker training.

Conclusions

The legal regulation of seasonal workers' rights in agriculture in Ukraine has significant shortcomings that complicate the implementation of labour and social guarantees. The main problem is the high level of informal employment, which deprives workers of the opportunity to enjoy legal protection. The lack of clear standards adapted to the specifics of seasonal work creates conditions for rights violations. For example, although written employment contracts are mandatory, this requirement is often ignored by employers, leaving workers without a legal instrument to protect their interests. In Poland, this issue is addressed

through strict regulation of written employment contracts and significant penalties for their absence, which ensures a better level of transparency in labour relations.

The issue of access to paid leave is one of the key issues for seasonal workers in Ukraine. Current legislation does not take into account the specific nature of the increased workload that workers face when performing seasonal tasks, which limits their ability to recover after intensive work. Restrictions on the duration of paid leave, in particular the link to short-term employment, create an imbalance between the needs of workers for rest and the economic requirements of employers. In Poland, this problem is solved through mandatory written regulation of labour relations, which includes provisions on leave, and failure to comply with these rules results in significant fines for employers, which ensures legal protection for employees and promotes their productivity.

Seasonal workers in Ukraine face limited access to social guarantees and fair working conditions as a result of a lack of adequate control and transparency in labour relations. In Germany, the regulation of temporary employment includes requirements for equal working conditions for all workers, regardless of their status, which ensures social protection and access to guaranteed rights. Mechanisms such as the obligation of employers to report changes in their activities and regular monitoring of compliance with labour standards help to minimise the risks of exploitation. In Ukraine, the absence of such tools creates significant risks for seasonal workers, especially in the agricultural sector, while such mechanisms ensure transparency in labour relations and strengthen control over the observance of rights.

The level of motivation for formal employment among seasonal workers in Ukraine remains low due to the prevalence of informal labour relations. Many employers avoid formalising employment contracts in order to minimise costs

associated with social guarantees, such as holidays, health insurance and pensions. This deprives workers of the opportunity to protect their labour rights and enjoy the social guarantees provided by law. The lack of formal registration also makes it impossible to accumulate insurance experience for pension provision, increasing social risks for workers.

The need for a radical review of approaches to regulating the rights of seasonal workers in Ukraine is based on existing gaps in legal regulation. This does not provide an adequate level of social protection, and the lack of integration of international experience exacerbates these problems. The adaptation of EU standards, such as compulsory social insurance and clear regulation of working conditions, will allow Ukraine to move closer to European standards. The introduction of mechanisms that guarantee the mandatory establishment of equal working conditions for seasonal workers and increased accountability of employers to licensing authorities in matters of work

organisation will help to ensure reliable social protection for workers.

In summary, the study characterised the main new challenges of regulating seasonal labour and proposed ways to address them. However, the analysis focused on comparisons with EU legislation and its member states, which narrowed the scope of the study. In future work, it would be advisable to include the experience of countries with developed agricultural sectors (Canada, USA) in order to formulate more comprehensive recommendations for improving Ukrainian legislation.

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Новітні виклики захисту прав сезонних працівників сільськогосподарського виробництва в ЄС та Україні

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Анотація

Дослідження було присвячене порівняльному аналізу юридичного інструментарію захисту трудових прав сезонних працівників у сільському господарстві України та Європейського Союзу. Було встановлено, що значна частина працівників цієї категорії залишається поза межами правового регулювання, що ускладнює доступ до соціальних гарантій, таких як медичне страхування, оплачувані відпустки та пенсійне забезпечення. Практика укладення трудових договорів у письмовій формі, хоча і передбачена законом, часто ігнорується, що створює нерівні умови праці та ускладнює захист прав працівників. Регулювання відпусток і тривалості робочого часу не враховує специфіки сезонної роботи, через що працівники змушені працювати без належного відпочинку, що впливає на їхнє фізичне та психічне здоров'я. Польським законодавством передбачено обов'язкове укладення письмових трудових договорів для сезонних працівників, що гарантує прозорість трудових відносин, а спеціальний закон забезпечує їхній доступ до медичних, пенсійних та інших соціальних гарантій через обов'язкову реєстрацію у системі соціального страхування. Варті уваги положення німецького законодавства, яке встановлює рівні умови праці для сезонних і постійних працівників, зобов'язуючи роботодавців забезпечувати оплату не нижчу за рівень, встановлений для постійного персоналу, а також надавати доступ до соціальних гарантій, включаючи можливості професійного розвитку. Європейські директиви встановили високі стандарти захисту працівників, включаючи письмове інформування про умови праці, обов'язкові оплачувані відпустки та чіткі норми тривалості робочого часу. Адаптація європейських стандартів до українського законодавства сприятиме зменшенню рівня неформальної зайнятості, покращенню умов праці та посиленню соціального захисту працівників, що забезпечить більшу стабільність на ринку праці

Ключові слова: трудові відносини; соціальні гарантії; робочий час; прозорість; неформальна зайнятість



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Legal paternalism in the activities of public authorities as a conceptual framework for the greening of agricultural policy

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Abstract

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The study aimed to establish the patterns of influence of paternalistic mechanisms of state regulation on the processes of greening agricultural policy in Ukraine. The study was based on a comprehensive methodological strategy that combined theoretical and legal analysis of the concept of legal paternalism with empirical methods for assessing its practical implementation, including the development of an integral index of the intensity of paternalistic environmentalisation measures, statistical analysis of the dynamics of key environmental indicators of the Ukrainian agricultural sector for the period 2015-2024, and systematic comparative legal analysis of regulatory practices of leading European countries. The developed index of paternalistic greening mechanisms for Ukraine showed an increase from 0.35 in 2015 to 0.62 in 2024, which showed a gradual increase in state intervention in the environmental regulation of agricultural activities, mainly through regulatory transformation. Statistical testing of the hypotheses revealed a significant negative correlation between the level of paternalistic regulation and the intensity of mineral fertiliser use at minus

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0.72 with a significance level of less than 0.01, and a positive relationship with the spread of organic farming with a correlation coefficient of 0.65 with a significance level of less than 0.05. The regression analysis confirmed the positive and statistically significant impact of paternalistic mechanisms on the aggregate index of environmental and economic efficiency of the agricultural sector, with a coefficient of 0.43. The comparative analysis showed that Ukraine was in the phase of active convergence with European standards of paternalistic regulation, demonstrating indicators of 0.54-0.62, close to the countries of Central and Eastern Europe during their adaptation to the requirements of the Common Agricultural Policy, while the countries of old Europe reached the level of 0.75-0.8. The findings conceptually substantiated the objective necessity and practical effectiveness of state intervention in the formation of sustainable production practices in the agricultural sector, and practical recommendations included strengthening the conditionality of budget support through the implementation of the green conditionality principle, integrating digital monitoring and automated metering to improve control efficiency, introducing regulatory sandboxes for eco-innovation, and harmonising paternalistic policies with the polluter pays principle through the development of market-based

Keywords: state regulation; agricultural activities; environmental control; sustainable development; environmental legislation

Introduction

The environmental crisis and the need for transition to sustainable development of the agricultural sector raise the issue of the role of the state in ensuring the greening of agricultural activities. In the context of Ukraine's European integration and simultaneously overcoming the consequences of military actions, the formation of an effective legal model of public intervention in the agricultural sector is of particular importance. The concept of legal paternalism as a theoretical basis for the activities of public authorities justify the need for state regulation of environmental aspects of agriculture, even in cases where economic freedom of business entities is restricted. A theoretical notion of this problem is critical for developing a balanced agricultural policy that combines economic efficiency with environmental safety. The practical significance of the study is determined by the need to improve the regulatory framework for greening the agricultural sector in line with European standards and principles of sustainable development.

In the context of the structure of regulatory and legal support for the greening of agriculture, K. Marych (2023) revealed the need to improve the legal instruments for regulating environmental management in the agricultural sector, especially in the context of the introduction of organic production and agricultural waste management. The study emphasised the importance of strategic documents in formulating environmental policy goals and established the critical role of internal acts of agricultural entities in ensuring the effectiveness of environmentalisation of the industry. The evolution of EU legislation in the field of agriculture was studied by M. Kopytsia (2023), identifying the main trends in the development of the Union's agricultural policy, including the strengthening of the environmental component, diversification of rural areas, and attention to socio-ethical issues. The researcher determined that the current reform of the Common Agricultural Policy is aimed to achieve climate neutrality and biodiversity conservation, which reflects

a paternalistic approach to protecting the long-term environmental interests of society.

The regulatory framework for the transformation of Ukraine's state agricultural policy after the signing of the Association Agreement with the EU was analysed by I. Zghara (2024), identifying the key areas of sustainable development of the agricultural sector in the context of European integration. The study substantiated the need to balance social, economic and environmental aspects of agricultural development as the basis for the future agricultural policy of the state and identified the need to develop a long-term strategy for the development of the agricultural sector, incorporating the principles of inclusiveness. The peculiarities of the evolution of EU legislation on state support for agriculture were traced by K. Hryhorieva (2024), identifying three main trends in its development: decentralisation, greening and preservation of small farming. The researcher found that the current stage is characterised by a transition from mandatory measures to mandatory results while maintaining environmental priorities, which reflects the evolution of paternalistic approaches from direct regulation to result-oriented management.

The objective need for state regulation of the agricultural sector of Ukraine under martial law was substantiated by I. Konovalchuk and V. Kovalov (2023), identifying the specifics of its implementation. The study determined that state regulation should act as a mediator in the relations between the state, business entities and the population, especially in the context of food security. The researchers identified the main areas for ensuring sustainable development of the agricultural sector in the post-war period, including the restoration of human capital and technological development. The process of implementing the Green Deal policy into Ukrainian legislation was studied by I. Sopilko *et al.* (2025), identifying numerous practical problems in adapting

European standards to national realities. The researchers found that the successful implementation of environmental policy requires a comprehensive approach and international cooperation. The study emphasised the critical importance of the temporary relaxation of environmental requirements under martial law, which makes it difficult to collect the necessary data to develop a detailed roadmap for the implementation of the Green Deal. The issue of adaptation of agricultural production to climate change was studied by O. Gafurova and V. Shovkun (2024), determining that legal norms in this area are scattered and inconsistent. The study justified the need to create a holistic concept of climate-smart agriculture based on organic production. The researchers found that there are no mechanisms for implementing the measures envisaged in strategic documents, which makes their implementation optional.

The legal basis of grant support for agribusiness as a direction of the state agricultural policy under martial law was analysed by T. Kurman (2023), identifying priority areas of state regulation of the agricultural sector. The study emphasised the importance of moving to direct grant support for agricultural producers as a form of financial assistance to domestic agribusiness and identified the importance of grant support in ensuring the financial stability of agribusinesses at the national and international levels. The legislation on agroecological development of Ukraine was described by T. Novak *et al.* (2024), defining the category of agroecological development as the qualitative growth of the agricultural and food sector, incorporating environmental requirements. The researchers identified the need to revise strategic documents of economic development and develop a comprehensive concept of agroecological development, considering military realities and prospects for the post-war period.

The consequences of the retreat from environmental commitments in European agricultural policy as a result of the Russian-Ukrainian war were analysed by M. Morales *et al.* (2022), concluding that the disproportionate negative impact of cultivating fallow land on biodiversity, compared to a slight increase in production, was observed. The study substantiated the position that it is unacceptable to sacrifice long-term environmental sustainability for short-term economic benefits. A comprehensive analysis of the potential environmental ambitions of the new EU Common Agricultural Policy was conducted by N. Röder *et al.* (2024), determining significant shortcomings in the system of guarantees minimise environmental obligations of member states. The researchers found that the lack of clear protective mechanisms leads to uneven implementation of environmental goals and emphasised the critical importance of political and economic factors in achieving the environmental goals of agricultural policy. The study by L. Zachmann *et al.* (2023) complements this scientific perspective with significant conclusions about the effectiveness of paternalistic approaches. Information interventions as tools of soft paternalism were addressed, determining that they have an ambiguous impact on the environmental behaviour of producers. The study identified a boomerang effect when providing personalised information on the use of toxic fungicides to winegrowers. The researchers proved the need to incorporate individual perceptions of business entities when developing information campaigns.

Given the ambiguous preliminary results, the issue of theoretical substantiation of legal paternalism as a conceptual basis for the greening of agricultural policy and mechanisms for its practical implementation through the activities of public authorities remains relevant. The problems of balancing paternalistic approaches with the principles of economic freedom in the agricultural

sector are also insufficiently studied. Therefore, the study aimed to determine the role of legal paternalism in the activities of public authorities as a basis for the greening of agricultural policy.

Materials and Methods

The study was based on a comprehensive methodological strategy that combined theoretical and legal analysis of the concept of legal paternalism with empirical methods of assessing its practical implementation in the greening of Ukraine's agricultural policy. The conceptual framework of the study was formed within the framework of the doctrine of balancing public and private interests, formulated in the Decision of the Constitutional Court of Ukraine No. 4-p(II)/2022 (2022). The theoretical basis was also provided by the principles of international environmental law enshrined in the Rio Declaration on Environment and Development (1992) and the case law of the European Court of Human Rights in *Fredin v. Sweden* (1993), *Mătăsar v. the Republic of Moldova* (2019), *Haraszthy and Others v. Hungary* (2016) and *Denysyuk and Others v. Ukraine* (2024).

The methodological framework included a systematic analysis to consider legal paternalism as an integral system of public administration decisions in the field of environmentalisation of agricultural activities. The formal-dogmatic method was used to analyse the content of constitutional and legal provisions based on the official texts of the Constitution of Ukraine (1996), Law of Ukraine No. 1877-IV "On State Support of Agriculture of Ukraine" (2004) and Law of Ukraine No. 2059-VIII "On Environmental Impact Assessment" (2017).

The key methodological innovation of the study was the development of an integral index, *PI_ECO_Score*, to quantify the intensity of paternalistic environmentalisation measures. The index was calculated using the following formula:

$$PI_{ECO_score} = 0,35 * RegDensity + 0,35 * Green-Budget + 0,20 * Enforce-Index + 0,10 * Organic-Share, (1)$$

where *RegDensity* reflects the share of basic GAEC/SMR environmental standards in national legislation (normalised on a scale of 0-1); *Green-Budget* depicts the share of state support for agriculture conditional on environmental requirements (0-1); *Enforce-Index* characterises the level of enforcement activity in the field of environmental control, calculated as the ratio of sanctions imposed to the total area of agricultural land (0-1); *Organic-Share* determines the share of organic agricultural land in the total area (0-1). The weighting factors reflect the structure of the CAP 2023-2027 environmental conditionality, where regulatory requirements and financial conditionality together account for 70% of the paternalistic impact. The data sources used to calculate the index components were official reports of the Ministry of Environmental Protection and Natural Resources of Ukraine (Ministry of Environmental..., 2024), Eurostat statistics (2024), and data from the Research Institute of Organic Agriculture (2025).

The timeframe of the study covered the period of 2015-2024, due to the start of the implementation of key environmental reforms in Ukraine and the introduction of the CAP 2014-2020 (European Commission, 2010) with the greening programme in the European Union. The empirical basis of the study was the official statistical data of the State Statistics Service (2022; 2023), reports of the State Judicial Administration of Ukraine (2025), data of the Ministry of Environmental Protection and Natural Resources of Ukraine (2024a; 2024b) and reports of the State Institution "Institute of Soil Protection of Ukraine" (2024) on the state of soil resources degradation.

The dynamics of mineral fertiliser use were analysed based on official data from the State Statistics Service of Ukraine for 2010-2022 (physical

weight of the product in active ingredient). Since the official data of the State Statistics Service for 2023-2024 have not yet been released, a proportional conversion from the total nutrient consumption ($N + P_2O_5 + K_2O$) from the Short-Term Fertiliser Outlook 2024/25 (International Fertiliser Association, 2025) to the total revised sown area was applied to provide the most recent reproduced estimates using the formula:

$$Kg/ha = \frac{nutrient\ consumption, million\ tonnes \times 10^6 t \times 10^3 kg/t}{sown\ area, million\ hectares}, (2)$$

where nutrient consumption – total consumption of nitrogen, phosphorus and potassium in the country per year (million tonnes); 10^6 t – conversion factor for converting million tonnes to tonnes; 10^3 kg/t – conversion factor for converting tonnes to kilograms; sown area – total area of agricultural land under crops (million hectares). For 2023: 1.5 million tonnes / 19 million hectares \approx 79 kg/ha. For 2024: 1.7 million tonnes / 19 million hectares \approx 89 kg/ha. The value of 19 million hectares corresponds to the estimate of the total production area used by the United States Department of Agriculture, Foreign Agricultural Service (Sobolev, 2024) as a basis for MY 2024/25. Additionally, data on greenhouse gas emissions from the agricultural sector from the national cadastre of Ukraine's greenhouse gas inventory 1990-2022 (Ministry of Environmental Protection and Natural Resources of Ukraine, 2024) were used.

Statistical analysis was carried out using SPSS version 28.0. Pearson's correlation coefficients were calculated to establish the relationship between the level of paternalistic regulation (*PI_ECO_Score*) and key environmental indicators of the agricultural sector, including the intensity of mineral fertiliser use (kg of active ingredient per hectare), the share of organic land in the total agricultural area, greenhouse gas emissions from agriculture (CO_2 -equivalent) and soil degradation indicators for the period 2015-2024 for Ukraine

and comparative indicators for France, Germany and Poland as representative EU countries with different levels of development of paternalistic mechanisms. To test the main hypothesis of the study, a regression analysis was performed with the dependent variable as a composite index of environmental and economic efficiency of the agricultural sector, composed of normalised productivity per unit of greenhouse gas emissions, the share of organic products in exports, and the soil resource condition index based on humus content. The control variables were GDP per capita and the urbanisation rate to consider the level of economic development and structural features of the economies of the countries under study. The level of statistical significance was set at $p < 0.05$.

Results

The conceptual and theoretical basis of legal paternalism and its significance for the greening of agricultural policy. Legal paternalism in public administration is a concept of state intervention that justifies the restriction of private autonomy to achieve the public good or protect the interests of the regulated entities themselves (Tregger, 2023). Etymologically, the term “paternalism” comes from the Latin “pater” (father) and reflects the model of “paternal” care of the state over its citizens. The doctrine of legal paternalism distinguishes between two main types of intervention: “hard” paternalism, which involves the use of direct imperative prohibitions or orders, and “soft” paternalism, which aims to delicately guide behaviour through economic incentives, information campaigns, and nudging mechanisms, while maintaining formal choice for regulated entities. In the context of agricultural activities, examples of hard paternalism include direct restrictions on the use of certain pesticides, setting fertiliser limits, and banning stubble burning, while soft paternalism is implemented through subsidies to farmers for implementing environmentally

friendly practices and the creation of environmental certification systems with preferences for participants. In the context of this study, narrow legal paternalism is considered a system of public administration decisions that restricts the freedom of entrepreneurship or property rights of agricultural production entities to achieve environmental goals and ensure sustainable agricultural development (Dworkin, 2020). The constitutional and legal justification for restricting private initiative in a state governed by the rule of law requires a clear regulatory framework and adherence to the rule of law.

The principle of environmental protection and ecological safety is enshrined in Articles 16 and 50 of the Constitution of Ukraine (1996), which define ecological safety as one of the priority duties of the state. When the activities of private agricultural producers pose a threat to the environment through nitrate pollution of water resources or soil degradation, the state not only has the right but also the obligation to take restrictive measures. Preventive environmental paternalism finds its justification in the principle of precautionary approach enshrined in the Rio Declaration on Environment and Development (1992), principle 15 of which states that in cases of threatened serious or irreversible damage, the lack of full scientific certainty should not be used as a pretext for postponing measures to prevent environmental degradation.

The principle of balancing public and private interests, developed in the case law of the European Court of Human Rights and the Constitutional Court of Ukraine, establishes the criterion of proportionality of state interference with private rights and requires that restrictions on the rights of agricultural producers for environmental purposes be necessary, justified by a legitimate aim and constitute the least burdensome means of achieving the goal. The Constitutional Court of Ukraine developed this doctrine in its decision

No. 4-p(II)/2022 (2022). This position was further developed in the decision of 6 September 2023 No. 6-p(I)/2023 (2023), which states that “the right to property is not absolute, but interference with this right may be conducted only following the law in compliance with the principle of proportionality, which requires achieving a reasonable balance between the interests of the individual and society”.

The case law of the European Court of Human Rights has developed and specified the principles of balancing public and private interests through landmark judgments that are directly relevant to the justification of paternalistic mechanisms for greening agricultural policy. In Case No. 18928/91 “Fredin v. Sweden” (1993), the ECtHR established the fundamental principle of broad discretionary powers of states in the field of environmental protection, recognising the legitimacy of restricting the right to ownership of land plots for environmental purposes. The case demonstrated the critical importance of ensuring the right to a fair trial in accordance with Article 6 of the Convention for the Protection of Human Rights and Fundamental Freedoms (1950) in the judicial review of administrative decisions on environmental management.

In the case of *Mătăsar v. the Republic of Moldova* (2019), the ECtHR considered the issue of balancing freedom of expression with public interests in the context of environmental activism. The case of *Haraszthy and Others v. Hungary* (2016) illustrates the application of the principle of proportionality in the taxation of property rights, demonstrating the limits of permissible state interference with private economic interests. In *Denysyuk and Others v. Ukraine* (2024), the ECtHR confirmed the importance of observing reasonable time limits for court proceedings, which is of particular relevance for paternalistic regulation. These decisions have shaped the international legal standards for the application of

paternalistic approaches, which require states to provide a convincing justification for the need to interfere with private rights for public environmental purposes and to ensure adequate procedural guarantees.

The evolution of agricultural policy demonstrates a gradual shift from the concept of food security to a model of sustainable development, which is reflected in the transformation of the European Union’s Common Agricultural Policy. Introduced in 1962, the CAP was primarily aimed to increase productivity through a paternalistic mechanism of guaranteed purchases (European Council, n.d.). The 1992 McSharry reforms introduced the concept of “cross-compliance” as a mechanism for mandatory compliance with environmental requirements as a condition for receiving budget payments. The current stage of CAP 2023-2027 is characterised by an increase in green conditionality through the establishment of mandatory eco-schemes and stricter requirements for compliance with EU environmental legislation, including 13. Directive of the European Parliament and of the Council No. 2000/60/EC (2000), Directive of the Council of the European Communities No. 91/676/EEC (1991) and Directive of the European Parliament and of the Council No. 2009/128/EC (2009).

As part of its efforts to integrate into the European Union, Ukraine is also gradually changing the focus of its agricultural policy from production maximisation to sustainable development and environmental protection. Historically, state support for the agricultural sector, as defined by Law of Ukraine No. 1877-IV (2004), prioritised price regulation, lending and subsidies for the production of products without significant environmental requirements, but in the period 2020-2024, several strategic documents were adopted that reorient Ukrainian agricultural policy towards sustainability and greening of production. In particular, the State Strategy for Agricultural

and Rural Development until 2030 (2024) envisages the implementation of approaches similar to the CAP, including the principle of “green” conditional financing and adaptation of European standards of good agro-environmental conditions to Ukrainian realities, and plans to establish minimum requirements for scientifically sound crop rotation, soil erosion protection, preservation of landscape elements and biodiversity as basic conditions for receiving state support, which demonstrates Ukraine’s gradual transition to the European model of paternalistic regulation.

Empirical analysis of administrative and legal mechanisms of ecologisation of agricultural activity through the prism of paternalism. The study analysed the dynamics of key environmental indicators of the agricultural sector in Ukraine, including the intensity of agrochemical use, the state of soil degradation, and greenhouse gas emissions from agricultural activities. The dynamics of mineral fertiliser use in the Ukrainian agricultural sector demonstrate a characteristic trajectory of change, reflecting both economic processes and the impact of external factors on agricultural production practices (Fig. 1).

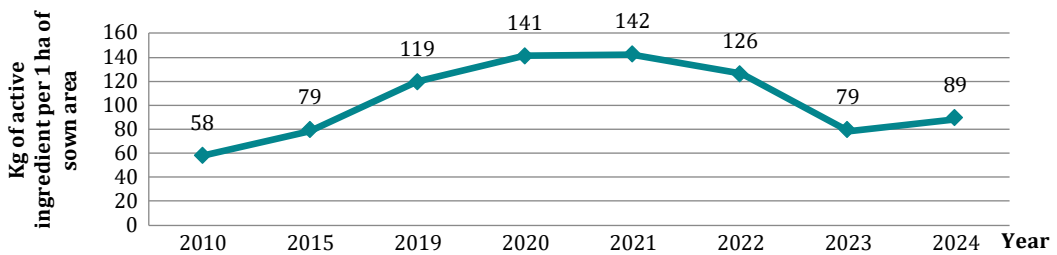


Figure 1. Use of mineral fertilisers in Ukraine

(kg of active ingredient per 1 ha of sown area), 2010-2024

Note: data for 2010-2022 are based on official statistics of the State Statistics Service of Ukraine on the application of mineral fertilisers in active substance (physical weight of the product). Figures for 2023-2024 are calculated based on nutrient intake ($N + P_2O_5 + K_2O$) according to IFA and USDA FAS data, which may lead to methodological differences in comparability. The conversion factor from nutrients to active substance is approximately 2.0-2.5, which partly explains the relatively lower estimated values. Regional statistics for 2023-2024 have not been officially published due to martial law

Source: compiled by the author based on State Statistics Service (2022; 2023), D. Sobolev (2024), I.E. Werner (2024), International Fertiliser Association (2025)

The dynamics of mineral fertiliser use in Ukraine in Figure 1 shows three distinct periods: a gradual increase in intensity of use in 2010-2021 due to technological modernisation of the agricultural sector and focus on export markets, a dramatic reduction in 2022-2023 due to the destruction of supply chains and restricted access to resources as a result of military operations, and the beginning of recovery in 2024 due to the industry’s adaptation to new conditions and partial normalisation of supply. This pattern of changes confirms the high dependence of agricultural

production intensity on external factors and indicates the need to develop sustainable mechanisms to ensure food security in an unstable geopolitical environment.

Based on the data from the Statistical Yearbook of Ukraine for 2023 (State Statistics..., 2023), the environmental performance of the agricultural sector shows trends that justify the need for stronger paternalistic regulation. The use of fresh water in agriculture for irrigation decreased from 1,453 million cubic metres in 2020 to 192 million cubic metres in 2023,

reflecting structural problems with water use in the agricultural sector. The discharge of polluted wastewater into surface water bodies remains at 376 million cubic metres in 2023, with 62 million cubic metres discharged without treatment. Ukraine has more than 1.1 million hectares of degraded, unproductive and technologically contaminated land that needs to be conserved. Over the past 20 years, the humus content of Ukrainian soils has decreased by an average of 0.22% in absolute terms, which is a significant deviation from the natural processes of fertility restoration (State Institution..., 2024). These indicators demonstrate the objective need to apply paternalistic mechanisms to ensure the rational use of natural resources and minimise the negative environmental impact of agricultural activities.

Greenhouse gas emissions from the agricultural sector of Ukraine, mainly due to livestock and soil ploughing, account for 13.3% of national CO₂-equivalent emissions, which indicates a significant contribution of agriculture to the national carbon footprint (Ministry of Environmental Protection..., 2024). At the same time, the agricultural sector demonstrated a significant reduction in emissions intensity by 63.8% compared to 1990 and by 22.8% compared to 2022 due to the introduction of best practices and modern technologies, in particular, precision farming systems at large agricultural enterprises. A comparative analysis of the European experience, based on aggregated data from the European Commission and Eurostat, shows that paternalistic approaches are effective in achieving environmental goals. In 2015-2020, the average nitrogen losses from mineral fertilisers in the EU gradually decreased as a result of the implementation of the sustainable fertiliser policy and the implementation of Directive of the Council of the European Communities No. 91/676/EEC (1991), which set mandatory restrictions on the application of nitrogen-containing substances by agricultural

producers. The share of organic farmland in the EU increased from 6.2% in 2015 to 9.1% in 2020, and according to the goals of the Farm to Table strategy (European Commission, 2020), it should reach 25% by 2030 (Food and Agriculture Organisation..., 2020). Such positive developments are largely driven by government support programmes, which are classic paternalistic economic measures: subsidies for organic production, compensation for certification costs, and targeted investments in sustainable infrastructure. The EU has spent around 6.5 billion EUR on supporting organic producers under the CAP 2014-2020, which demonstrates the scale of financial incentives to change the behaviour of the agricultural sector.

The activities of Ukrainian public authorities in environmental control and enforcement in the agricultural sector demonstrated a significant increase from 2020 to 2024. According to the Ministry of Environmental Protection and Natural Resources of Ukraine, since the beginning of 2024, the State Environmental Inspectorate has identified 353 unauthorised landfills on an area of 50 hectares, of which 17% or 61 landfills were eliminated through work with local authorities (Ministry of Environmental Protection and Natural Resources of Ukraine, 2024). In 2024, the environmental inspectorate resumed inspections of water polluters, conducting 5 unscheduled inspections of utilities, which resulted in 1.4 million UAH in water damage. According to an international assessment by the IMPEL Review Initiative (2024), as of August 2024, the State Environmental Inspectorate of Ukraine recorded more than 4,800 crimes committed by Russia against Ukrainian nature with damages of more than 2.4 trillion UAH. Typical violations found during inspections included unauthorised ploughing of coastal protection zones of water bodies, use of banned chemical plant protection products, violation of the rules for storage and disposal of livestock

waste, and non-compliance with requirements to prevent soil and water pollution. The increase in control activities coincided with the adoption of new regulations, including the Law of Ukraine No. 2059-VIII (2017), which extended the environmental impact assessment procedure to livestock farms and other agricultural facilities that were not previously subject to such regulation, contributing to an increase in environmental control and a reduction in the number of systemic violations of environmental legislation in the long term.

The calculations show an increase in paternalistic environmental regulation in Ukraine: The PI_ECO_Score increased from around 0.35 in 2015 to 0.62 in 2024, reflecting a predominantly regulatory transformation of the state's approach to environmental regulation of the agricultural sector. This increase in the index measures the formal intensity of paternalistic measures according to regulatory and institutional criteria but does not necessarily correlate with their practical effectiveness or real impact on the environmental state of agricultural production due to the objective resource constraints of the Ukrainian environmental control system. Changes in the regulatory component made the biggest contribution to the index growth due to a significant expansion of mandatory environmental requirements for agricultural producers. While in 2015, agricultural legislation contained virtually no direct environmental regulations, five key regulations with environmental requirements were adopted during the period under review. These documents include the State Sanitary Rules for Transportation, Storage and Application of Pesticides in the National Economy (1998), Resolution of the Cabinet of Ministers of Ukraine No. 1026-2017-p (2017) and Resolution of the Cabinet of Ministers of Ukraine. No. 179 "On Approval of the National Economic Strategy for the Period up to 2030" (2021). The growth of the PI_ECO_Score indicates the initial stage of development of a paternalistic

environmental regulation system, when the legislative framework is actively developing, but its practical implementation requires further institutional strengthening and resource provision.

The financial component of the index has also undergone structural changes that reflect the evolution of state support from unconditional subsidies to environmental conditionality mechanisms. Environmental conditionality provides for the provision of budgetary payments only if the Good Agricultural and Environmental Condition (GAEC/SMR) standards are met and participation in eco-schemes is ensured, which is the basis of the CAP 2023-2027 architecture, to which Ukraine is gradually moving closer (European Commission, 2023a). In 2021-2023, several pilot instruments of environmentally related support were introduced: The EU-supported Production Grant Scheme of the Ministry of Agrarian Policy with fixed payments per hectare for small producers, subject to compliance with basic environmental standards; a programme to compensate for the costs of organic certification for micro and small operators through the Organic Initiative platform, which has benefited 75 producers; and subsidies of up to 25% of the cost of irrigation systems as a form of green investment in water conservation (Coalition for Organic Ukraine, 2023; The Netherlands Initiative, 2023). These programmes illustrate the emergence of a fundamentally new model of state support in Ukrainian agricultural policy, where environmental criteria are becoming crucial for access to budget funding, although their share remains limited compared to EU approaches.

The control and sanctioning component demonstrates the intensification of law enforcement practice and the increased inevitability of liability for environmental offences. In the first half of 2023, the State Environmental Inspectorate drew up 5,186 reports on administrative offences and imposed penalties on 4,697 offenders, which

is 91% of the prosecution rate, registered 220 criminal proceedings, accrued 16.5 million EUR in environmental damage and filed claims worth 7.6 million EUR (European Network..., 2023). As of 31 August 2024, environmental inspectors recorded 5,448 cases of military-related environmental damage, requiring 6,593 damage calculations, and the budget of the State Environmental Inspectorate was increased by 58% to strengthen technical capacity through the modernisation of laboratories and the introduction of digital control tools (IMPEL Review Initiative, 2024; Environmental Policy Institute, 2024). Normalisation of the losses for the first half of 2023 to the total area of agricultural land in Ukraine (41.3 million hectares) yields a value of 0.40 million EUR per million hectares for six months, which is an annual equivalent of 0.80 million EUR (European Parliament, 2024).

Comparative analysis with the European Union countries shows that the average PI_ECO_Score for France is 0.77 and for Germany, -0.81 in 2024, which is explained by the long-standing functioning of a developed cross-compliance system and environmental conditions for receiving state support. According to estimates by the European Court of Auditors and the Institute for European Environmental Policy, Central and Eastern European countries, in particular Poland, have a score of 0.64, close to the current Ukrainian level, as they started the process of greening their agricultural policies later and have not yet fully reached the level of the old EU members (Institute for European..., 2023; European Court..., 2024). Thus, Ukraine is currently on a similar development path as Poland was in the 2010s when adapting to the requirements of the EU's Common Agricultural Policy (Table 1).

Table 1. Comparative Characteristics of the Index of Paternalistic Mechanisms of Greening Agricultural Policy in the EU and Ukraine (2022-2024)

State	RegDensity (share of GAEC/SMR core standards, 0-1)	Green-Budget (% of direct CAP support reserved for eco-schemes)	Enforce-Index (share of areas/recipients with reduced payments for breach of conditionality)	Organic-Share (% of organic land in UAA)	PI_ECO_Score (0-1)
France	0.94 – 15 of 16 mandatory GAECs + national GAEC-10-FR	25% of the Pillar 1 budget in 2023-27 will be allocated to eco-schemes	3-4% of space with reduced payments	10.4 % UAA (2023)	0.79
Germany	0.88 – 14 GAEC/SMR + regional soil protection regulations	22% of the CAP-2023-27 budget for eco-schemes	≈3.7% of areas with reduced payments	9.8 % UAA (2022)	0.75
Poland	0.69 – 11 GAEC; part of SMR implemented in a simplified manner	25% of the CAP budget for eco-schemes (full requirement)	1.9% of the area under sanctions	5.0 % UAA (2022)	0.64
Ukraine	0.63 – ≈10 mandatory environmental regulations (EIA, national GAEC counterpart)	~10% of state support for the agro-industrial complex with “green” conditions (pilots 2022-24)	≈ 2.1 million UAH in fines per 1 million hectares (≈2.5% of the area under sanctions)	1.1 % UAA (2023) – 471 thsnd. hectares of organic matter	0.54

Note: The various indicators are presented for available years according to official statistics from national agencies and international organisations. Differences in years are due to the peculiarities of national reporting and publication cycles of EU agricultural policy statistics

Source: compiled by the author based on data from the Institute for European Environmental Policy (2023a; 2023b; 2023c; 2023d; 2023e), European Parliamentary Research Service (2024), European Commission (2023b), Ecologic Institute (2023), Eurostat (2024), European Court of Auditors (2024), Research Institute of Organic Agriculture (2025)

The empirical data presented in Table 1 show a natural correlation between the institutional maturity of paternalistic mechanisms and the integrated level of greening of agricultural policy, which confirms the central hypothesis of the study about the effectiveness of government intervention in shaping sustainable production practices. The composite index PI_ECO_Score demonstrates a gradation of levels of institutionalisation of green conditions in state support systems for agriculture, where the highest values correspond to countries with a long history of implementing cross-compliance principles and a developed architecture of eco-schemes within the Common Agricultural Policy of the European Union. Ukraine, being at the stage of forming domestic model of environmentally oriented regulation of the agricultural sector, demonstrates indicators comparable to those of the candidate countries and new EU members of the 2004-2007 enlargement period, which indicates the natural nature of the evolution from traditional mechanisms of supporting farm incomes to a multifunctional paradigm of sustainable rural development. The differentiation of the composite index values reflects objective differences in the speed of adaptation of national legislation to the requirements of the European Green Deal and the level of readiness of the agricultural sectors to accept restrictive environmental standards as a prerequisite for access to budgetary funding.

A comparative analysis of European experience is demonstrated by the Carbon Farming eco-scheme in France under the new CAP 2023-2027 (Institute for European..., 2023), which provides payments to farmers who voluntarily implement practices to increase carbon sequestration by soils and biomass, including growing cover crops, zero tillage, planting forest belts and hedges, and maintaining meadows and pastures. Farmers can choose between two levels of participation: basic, which requires a minimum set of practices, or

advanced, with more ambitious commitments and the potential for greater CO₂ sequestration, with rewards differentiated according to the level of effort (Institute for European..., 2023). This eco-scheme is an example of conditional state care, where the state, through EU mechanisms, offers significant financial resources in France, with a budget of approximately 300 million EUR per year in exchange for a specific behavioural change in favour of the environment. The popularity of the programme has been high: in the first year of the programme's implementation in 2023, more than 80% of French farms applied to participate, covering approximately 9 million hectares of agricultural land. However, an analysis by the Institute for European Environmental Policy showed that the scheme's effectiveness may be lower than expected, as a significant number of farms had already been following similar practices before the programme was introduced, meaning that the novelty of environmental commitments is limited (Institute for European..., 2023).

To rigorously test the hypothesis, a regression analysis was performed, with the aggregate index of environmental and economic efficiency of the agricultural sector, composed of normalised indicators of productivity per unit of emissions, the share of organic products in exports and the state of soil resources, as the dependent variable, and the independent variables PI_ECO_Score, GDP per capita and urbanisation rate as control variables. Based on data for 15 countries, including EU countries and Ukraine, the regression analysis showed a positive and statistically significant coefficient for PI_ECO_Score ($\beta \approx 0.43$, $p < 0.05$), which indicates that, *ceteris paribus*, countries with a higher index of "environmental paternalism" demonstrate better indicators of sustainable agricultural development.

An analysis of Ukraine's environmental law enforcement case law shows the formation of a stable law enforcement doctrine that supports

the prevalence of public environmental interests over private commercial interests of business entities. A study of selected exemplary court decisions for the period 2018-2024 demonstrates the tendency of administrative courts to support the positions of state environmental supervision authorities in cases of proper compliance with the procedural requirements of the law. Typical examples of this approach are the Judgement of the Kyiv District Administrative Court in Case No. 640/20326/18 (2022), where the court upheld the claim of the State Environmental Inspectorate for a temporary ban on the activities of Agroscope International LLC due to violation of the requirements for the storage of pesticides without an environmental impact assessment, and the Judgement of the Economic Court of Ivano-Frankivsk Region No. 129087688 (2025), which recovered almost five million hryvnias of environmental damage from the Kalush Energy Company for unauthorised water use (Economic Court of Ivano-Frankivsk Region, 2025). At the same time, court practice shows that the procedural rights of business entities are protected in cases where regulatory authorities violate the established procedure for conducting inspections or do not sufficiently substantiate their claims. This law enforcement position reflects a balanced approach to resolving the conflict between the economic and environmental interests of society, where the judiciary acts as arbitrators in ensuring compliance with both substantive environmental regulations and procedural guarantees of business activity. The formation of such a judicial doctrine contributes to the legitimisation of paternalistic mechanisms of environmental regulation of the agricultural sector by creating a predictable legal environment for all participants in legal relations.

In some cases, the claims of enterprises were satisfied solely due to procedural violations by state supervisory authorities, and not

as a result of challenging substantive environmental regulations. The Judgement of the Odesa District Administrative Court No. 111914810 in Case No. 540/7516/21 (2023), where the court partially cancelled the order of the State Environmental Inspectorate to LLC Production and Commercial Enterprise Ecology Plus due to the failure to prove the actual use of stationary emission sources, and the order to PJSC Black Sea Fuel Terminal was completely cancelled due to the groundlessness of the requirements of the supervisory authority, are illustrative. The analysis of court practice confirms the trend towards the formation of a stable law enforcement doctrine, according to which courts protect public environmental interests while ensuring that supervisory authorities comply with the established procedural guarantees of the rights of business entities, reflecting a balanced approach to resolving the conflict between the economic and environmental interests of society.

At the level of the European Union, Judgement of the European Court of Justice in Case No. C-616/17 (2019), which concerned the interpretation of the regulation of the use of agrochemicals and the limits of national regulation, is illustrative. The Court confirmed the right of Member States to set stricter environmental protection requirements for the use of chemicals than the European standard, even if this restricts business activities, provided that there is a scientific justification and no contradiction with the basic EU regulations. Another judgment, No. C-528/16 (2018), concerned the recognition by the EU Court of Justice that new methods of genetic engineering in agriculture should be subject to the restrictions of the genetically modified organisms directives, even if they are technologically novel, based on preventive environmental protection considerations and the precautionary principle. These judgments signal that European legal doctrine supports the priority of

environmental safety, effectively legitimising paternalistic measures, including bans and moratoriums against risky agricultural technologies in the name of the public good.

Efficiency and prospects for improving paternalistic instruments in the context of sustainable development of the agricultural sector. The analysis shows a differentiated perception of environmental requirements in the Ukrainian agricultural sector: large agro-industrial enterprises demonstrate a higher level of adaptation to new regulatory standards due to the availability of financial and organisational resources, while small and medium-sized farms require additional state support for the effective implementation of environmental practices. This pattern highlights the need for a differentiated approach to the development of paternalistic policies that incorporates the specific capabilities and constraints of different categories of farmers to achieve an optimal balance between environmental goals and the economic viability of the agricultural sector.

A comparative analysis of the effectiveness of Ukrainian and European paternalistic mechanisms reveals both common features and significant differences in approaches and results. The advantages of the Ukrainian system are the flexibility and efficiency of implementing new measures: pilot programmes can be introduced by resolutions of the Cabinet of Ministers of Ukraine quite quickly, while in the EU, the process of approving changes to the Common Agricultural Policy is long and complicated due to the need to reach consensus among the 27 member states. Ukraine can selectively adopt the best European practices, including the introduction of electronic farmland monitoring systems using satellite technology, which is only beginning to be widely used in the EU. The main vulnerabilities of the Ukrainian system are the low level of resources for environmental control, including underfunding of the State Environmental Inspectorate, lack of

specialised laboratories and qualified human capital, as well as the risk of corruption in the administration of complex environmental requirements, when unclear rules increase the discretionary powers of officials.

In contrast, the EU countries are much better resourced for environmental policy due to well-developed institutional structures and stable funding, but the problem is the excessive complexity and bureaucracy of the mechanisms. Often, farms comply with environmental requirements formally without changing the essence of technological processes, for example, by diversifying crops by sowing technical intermediate crops to meet a formal quota, which are then ploughed over anyway without significant environmental effect (European Court of Auditors, 2017). In other words, the efficiency in terms of the final environmental impact may be lower than calculated due to the gap between formal compliance and actual changes in production practices. The Ukrainian experience should take this European problem into account and try to avoid “reporting indicators” without real environmental content, instead prioritising measurable results, such as actual reduction of greenhouse gas emissions, improvement of soil resources, confirmed by laboratory tests.

The projected scenarios for the development of paternalistic approaches until 2030 (FAO, 2018) are based on the analysis of the FAO’s Towards Sustainability – TSS, Business as Usual – BAU and Stratified Societies – SSS scenario models on possible trajectories of agricultural development in the context of growing environmental challenges. According to FAO estimates, this scenario would result in a significant improvement in food security: undernutrition would decline to 3.4% by 2030, compared to 7.6% under the BAU scenario, more than halving the number of chronically undernourished people compared to 2012. At the same time, agricultural production will grow at a slower but more stable pace, with

an emphasis on innovative and sustainable processes through increased investment, including improved resource efficiency and more sustainable use of natural resources and food (FAO, 2018).

The scenario of maximum paternalism with a *PI_ECO_Score* of approximately 0.9 implies strict state regulation of almost all aspects of agricultural activity through quotas on fertiliser use, taxes on greenhouse gas emissions, and the forced conversion of some land to environmental and biodiversity funds. According to UNEP estimates, this approach would provide the greatest environmental benefit: virtually zero growth in emissions from agriculture, restoration of biodiversity over large areas, and cessation of soil degradation (European Commission, 2021). However, economically and socially, this scenario carries significant risks, including a possible reduction in the gross value added of the agricultural sector by up to 10%, mass protests by farmers' organisations against restrictive measures, and the need for large budgetary compensation for lost income. This is a radical path that is unlikely to be taken in democratic societies without extraordinary circumstances, such as environmental disasters or international sanctions for failing to meet climate commitments.

A rollback scenario with a *PI_ECO_Score* of less than 0.5 could occur in the event of political or economic crises, when the state would weaken environmental controls and incentives for the sake of short-term economic growth. The agricultural sector may return to extensive production methods for quick profits, which will result in a short-term increase in output, but by 2030 will lead to accelerated degradation of natural resources. According to the draft of the seventh Global Environment Outlook, the continuation of the business-as-usual model in agriculture threatens to lose up to 20% of land productivity globally due to soil and water depletion (Dittmar, 2023). For Ukraine, given its role as one of the leading food exporters, such a scenario is unacceptable

both in terms of national interests and international commitments to food security.

Based on the analysis, the most realistic and balanced scenario is a moderately high paternalistic intervention with elements of flexibility and adaptation to specific conditions. This is in line with global trends: even large-scale international financial initiatives, such as NextGenerationEU with a budget of 1.8 trillion EUR, one third of which is aimed to implement the European Green Deal (European Commission, 2019), assume that the future belongs to green economic modernisation rather than deregulation of environmental requirements. The development of specific proposals for improving legislation and governance should consider both positive international experience and specific Ukrainian conditions and constraints.

The priority measure is to strengthen the conditionality of budget support through the implementation of the "green conditionality" principle in Ukrainian agricultural legislation. The Law of Ukraine No. 1877-IV "On State Support of Agriculture of Ukraine" (2004) should be amended to include an article on environmental conditions for state support, correlating with Regulation of the European Parliament and of the Council No. 2021/2115 (2021) on strategic plans for the Common Agricultural Policy and Regulation of the European Parliament and of the Council No. 2021/2116 (2021) on the financing, management and monitoring of the Common Agricultural Policy, which set out the Good Agricultural and Environmental Condition (GAEC) standards and the requirements for legislative management (SMR). Starting from 2025, it is advisable to introduce a minimum set of standards for good agro-environmental conditions, including compliance with scientifically based crop rotations, prohibition of crop residue burning, and allocation of a set percentage of land for environmentally significant areas. Violation of these basic requirements should be punishable by a proportional reduction

or complete withdrawal of budget payments. The integration of digital monitoring and automated accounting is critical to increasing efficiency and reducing corruption risks. In 2023, the European Union adopted a regulation on the use of satellite surveillance data to monitor compliance with agri-environmental requirements, which can be used for automated inspections and reduced subjectivity. Ukraine should develop a similar agro-monitoring system based on satellite imagery and geographic information systems to track compliance with environmental requirements, including pasture preservation, winter cover crops, and crop rotation. This will significantly reduce opportunities for corruption and increase the likelihood of control over environmental violations.

The mechanism of “regulatory sandboxes” for eco-innovations can be used for flexible adaptation of legal regulation to the rapid development of agro-technologies, including biological plant protection products, precision farming technologies, and genetically modified crops with improved environmental characteristics. A “regulatory sandbox” refers to a temporary permission to test innovative technologies in a limited area or circle of participants with special scientific supervision without immediate application of general regulations. For example, carbon credit systems for farms could be tested voluntarily, or new biotechnologies that potentially reduce chemical burdens on agro-ecosystems could be tested under the supervision of scientific institutions.

Harmonising paternalistic policies with the “polluter pays” principle and developing market mechanisms will ensure an optimal combination of state regulation and economic incentives. An effective system of environmental liability insurance for agricultural enterprises should be introduced, with higher insurance premiums for those with higher environmental risks. The development of the ecosystem services market can provide payments from industrial enterprises or

special funds for preserving carbon in soils, water purification, and biodiversity conservation. In this way, the state will stimulate environmentally responsible behaviour, but market mechanisms will also contribute to the financing of environmental services. At the same time, it is necessary to update the sanction tariffs for violators of environmental legislation so that fines are economically proportionate to the damage caused to the environment and are inevitably collected through simplified court procedures, for example, the introduction of writ proceedings similar to tax debt collection.

Educational and advisory support and public involvement in environmental control will significantly increase the effectiveness of paternalistic measures by ensuring that the recipients of regulation are aware of their appropriateness. Programmes to raise farmers’ awareness of sustainable production practices and mandatory training on environmental compliance are needed as a condition for obtaining certain permits or state support. Civic environmental monitoring through the involvement of non-governmental environmental organisations and local communities in identifying violations can be an effective element of “bottom-up” control that fits into the concept of “smart regulation”, which combines traditional state control and public pressure. This approach would also help to build environmental awareness and responsibility among agricultural producers by demonstrating public support for environmental goals.

Discussion

The findings confirm the fundamental role of paternalistic mechanisms in shaping environmentally oriented agricultural policy and demonstrate the objective need for government intervention to adjust the behaviour of agricultural producers to achieve sustainable development goals. The growth of the PI_ECO_Score in Ukraine from 0.35 in 2015 to 0.62 in 2024 correlates with

international studies on the effectiveness of various types of government interventions in the agricultural sector, which indicates a gradual transformation of national agricultural policy towards European environmental regulation standards. The conceptual basis for a multi-level approach to environmental regulation is supported by A. Chalabi (2023), who used the NIC (Needs, Interests, Capabilities) theory to rethink the right to the environment as a multilevel concept that operates at the individual, collective and global levels. This approach correlates with the concept of differentiated paternalistic mechanisms developed in this study, as both works move away from a one-size-fits-all approach and demonstrate the evolution from strict regulatory prohibitions to a complex toolkit that combines imperative mechanisms with incentives through the concept of soft paternalism.

The theoretical foundations of paternalistic regulation were substantiated by E. Saunders-Hastings (2024), developing a new denotation of paternalistic disrespect by analysing its two dimensions. The study defined paternalism as attempts to limit, circumvent, manipulate or influence an agent's choices or behaviour, where these attempts express a judgement that the agent is not capable of acting effectively independently. This definition is consistent with the developed typology of paternalistic mechanisms in the agricultural sector, where "soft" paternalism acts as a tool for correcting behaviour without completely restricting the autonomy of agricultural producers, as reflected in the growth dynamics of the PI_ECO_Score. The European context of implementing the green architecture of agricultural policy was analysed by H. Guyomard *et al.* (2023), examining the new five-year Common Agricultural Policy through the prism of three fundamental instruments: conditionality, eco-schemes, and agri-environmental measures. Their conclusions that conditionality criteria represent minimum

requirements and eco-schemes provide rewards for efforts above and beyond the basic requirements are fully consistent with the proposed gradation of paternalistic mechanisms from hard to soft instruments, where the PI_ECO_Score increases precisely because of the combination of mandatory standards and incentive programmes.

Empirical evidence of the effectiveness of the educational and informational components of paternalistic measures was provided by P. Ataei *et al.* (2022) through a detailed analysis of the environmental sustainability behaviour of farmers in Kermanshah Province, Iran. The results convincingly showed that five key variables had a statistically significant impact on personal norms, which had a statistically significant impact on farmers' sustainable behaviour. Particularly relevant for the validation of the developed approach is the finding that 81.2% of farmers did not participate in educational and promotional classes, which correlates with the findings that information and advisory mechanisms need to be strengthened as part of paternalistic regulation, as reflected in the increase in the PI_ECO_Score. The methodological justification for the use of "nudges" as an alternative to strict regulatory measures was presented by M. Santos Silva (2021) in a comprehensive analysis of European and American environmental sustainability practices. The results of the statistical analysis revealed a positive correlation between the introduction of paternalistic mechanisms and the growth of environmental performance of the agricultural sector, which confirms the author's conclusions about the lack of effectiveness of traditional regulatory techniques. The researcher's three key theses on the importance of transparency, consideration of moral inclinations, and the complementarity of green incentives with traditional measures are directly reflected in the structure of the PI_ECO_Score, where each component of the index considers different types of government interventions.

The strategic challenges of the European carbon farming policy were investigated by S. Van Hoof (2023), determining a paradoxical situation of limited adoption of relevant policies despite the significant emission reduction potential. The conclusion that governments refrained from using laws and regulatory instruments, preferring strategies and plans, confirms the feasibility of the developed approach to paternalistic mechanisms, where soft instruments demonstrate higher efficiency than hard regulatory prohibitions, as reflected in the positive dynamics of the PI_ECO_Score. The practical effectiveness of eco-schemes as a tool for paternalistic regulation is illustrated by a multidisciplinary study by S. Colombo *et al.* (2024), employing Andalusian olive groves to assess the environmental and economic effects of the Common Agricultural Policy's green architecture. Their findings of a significant increase in soil organic carbon and a cost-benefit ratio above one are directly correlated with the PI_ECO_Score component, which reflects the effectiveness of economic incentives as part of paternalistic mechanisms, demonstrating that incentives can provide both environmental and economic benefits.

Ukrainian realities of environmental efficiency were studied by O. Halytsia *et al.* (2024), for the first time empirically assessing the environmental efficiency of crop producers using panel data at the farm level. Their average environmental efficiency of 0.84, with room for improvement, correlates with the initial values of the PI_ECO_Score (0.35 in 2015) and confirms the validity of the developed methodology for assessing paternalistic mechanisms as a tool for improving the environmental efficiency of the Ukrainian agricultural sector. The legal basis for the harmonisation of environmental standards was analysed by N.P. Nikolaidis *et al.* (2025) conducted a comparative analysis of the contrasting approaches of the Nitrate Directive and the Water Framework Directive to assess the status of eutrophication for

the first time. The study found significant inconsistencies in the criteria for assessing nutrients between the two directives, finding that nitrogen is often linked to less stringent drinking water standards rather than ecologically relevant criteria. Their conclusion that the criteria need to be harmonised confirms the feasibility of a unified approach to assessing paternalistic mechanisms through a single PI_ECO_Score index, which can be used for the comparison of the effectiveness of different regulatory instruments.

The scientific basis for differentiating agro-ecological practices was provided by T. Petersson *et al.* (2025) through a systematic review of the climate change mitigation potential of carbon farming practices on European arable land. The conceptual framework of carbon farming was validated through an analysis of more than 700 records of soil organic carbon change rates for 12 different practices. The identified diverse carbon storage potential for different practices confirms the need for a differentiated approach to paternalistic mechanisms, which is reflected in the multi-component structure of the PI_ECO_Score, where each element considers the specifics of different agro-environmental measures. Crisis aspects of agricultural regulation were studied by M. Nehrey and R. Finger (2024), who analysed the initial impact of the Russian invasion on Ukrainian agriculture, finding a reactive nature of government measures that included tax simplification, affordable credit, and deregulation. This experience contrasts with the developed systematic approach to paternalistic mechanisms, demonstrating the benefits of planned long-term interventions over crisis measures, as evidenced by the stable positive dynamics of the PI_ECO_Score in peacetime compared to potential losses during wartime.

The French context was analysed by M. Las-salas *et al.* (2024) in an assessment of the ambition of the Common Agricultural Policy 2023-

2027, finding that 99.9% of farms reach the standard level of eco-schemes without changing practices, and 84.9% reach the higher level. These results confirm the critical findings of the lack of ambition of current European measures and justify the need for more effective paternalistic mechanisms, which is reflected in the PI_ECO_Score calculation methodology by incorporating not only formal compliance with standards but also real environmental results. In general, international experience convincingly confirms the validity of the developed approach to assessing paternalistic mechanisms through the PI_ECO_Score index and demonstrates the universality of the principles of combining hard and soft regulatory instruments. Confirmation of the main hypotheses of the study by various international experiences shows that European practices can be adapted to Ukrainian realities, incorporating specific national conditions and limitations, while significantly expanding the theoretical notion of paternalistic mechanisms through empirical evidence of their positive impact on the environmental performance of agricultural production.

Conclusions

The study was conducted using a comprehensive methodological strategy that combined theoretical and legal analysis of the concept of paternalism with empirical methods of assessing its practical implementation in Ukrainian realities. The conceptual and theoretical justification of legal paternalism was provided by analysing its etymological foundations, distinguishing between hard and soft types of intervention, and establishing constitutional and legal grounds for restricting private autonomy for environmental purposes. The empirical analysis included the development of an integral index PI_ECO_Score to quantify the intensity of paternalistic environmentalisation measures, a study of the dynamics of key environmental indicators of the Ukrainian agricultural

sector over the period 2015-2024, and a comprehensive comparative analysis with the experience of the European Union. Hypothesis testing confirmed the existence of a positive correlation between the level of paternalistic regulation and environmental outcomes. The regression analysis using the composite index of environmental and economic efficiency of the agricultural sector showed a positive and statistically significant coefficient for PI_ECO_Score, which indicates better sustainability performance in countries with a higher level of environmental paternalism. The analysis of court practice has shown the formation of a stable law enforcement doctrine of a balanced approach to resolving conflicts between environmental and economic interests, with the prevalence of the public interest in environmental protection, subject to procedural guarantees of the rights of business entities.

The results obtained provide a conceptual basis for the objective necessity and practical effectiveness of state intervention in the formation of sustainable production practices in the agricultural sector using paternalistic mechanisms of varying degrees of intensity. The study proves the evolutionary nature of the transformation of agricultural regulation from the traditional productivist paradigm to an environmentally based model of state intervention through the regulatory transformation of the state's approach to environmental regulation. The comparative analysis shows that Ukraine is in the phase of active convergence with European standards of paternalistic regulation, demonstrating indicators close to those of the countries of Central and Eastern Europe during the period of their adaptation to the requirements of the EU Common Agricultural Policy, which creates favourable prospects for further strengthening the environmental component of the national agricultural policy, provided that the relevant legal and financial instruments are systematically implemented. A natural corre-

lation has been established between the institutional maturity of paternalistic mechanisms and the integral level of greening of agricultural policy, which confirms the central hypothesis of the study on the effectiveness of government intervention in the formation of sustainable production practices.

A limitation of the study is the relatively short observation period for assessing the long-term effects of paternalistic measures and the limited availability of detailed statistical data on the real impact of regulatory changes on the ecological state of agroecosystems under martial law. A promising area for further research is the development of sectoral indices of paternalism

for different agricultural sectors and the study of mechanisms for integrating market-based environmental regulation instruments with traditional paternalistic approaches in the context of Ukraine's European integration.

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Conflict of Interest

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Правовий патерналізм у діяльності органів публічної влади як концептуальна основа екологізації аграрної політики

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Анотація

Метою дослідження було встановлення закономірностей впливу патерналістських механізмів державного регулювання на процеси екологізації аграрної політики в Україні. Дослідження ґрунтувалося на комплексній методологічній стратегії, що поєднувала теоретико-правовий аналіз концепції правового патерналізму з емпіричними методами оцінки його практичної реалізації, включаючи розробку інтегрального індексу інтенсивності патерналістських заходів екологізації, статистичний аналіз динаміки ключових екологічних показників українського аграрного сектору за період 2015-2024 років та систематичний порівняльно-правовий аналіз регуляторних практик провідних європейських держав. Розроблений індекс патерналістських механізмів екологізації для України продемонстрував зростання з 0,35 у 2015 році до 0,62 у 2024 році, що засвідчило поступове посилення державного втручання в екологічне регулювання сільськогосподарської діяльності переважно через нормативно-правову трансформацію. Статистична перевірка гіпотез виявила значущу негативну кореляцію між рівнем патерналістського регулювання та інтенсивністю використання мінеральних добрив на рівні мінус 0,72 при значущості менше 0,01, а також позитивний зв'язок із поширенням органічного землеробства з коефіцієнтом кореляції 0,65 при рівні значущості менше 0,05. Регресійний аналіз підтвердив позитивний та статистично значущий вплив патерналістських механізмів на зведений індекс еколого-економічної ефективності агросектору з коефіцієнтом 0,43. Порівняльний аналіз засвідчив, що Україна перебувала у фазі активної конвергенції до європейських стандартів патерналістського регулювання, демонструючи показники на рівні 0,54-0,62, близькі до країн Центрально-Східної Європи періоду їх адаптації до вимог Спільної аграрної політики, тоді як країни старої Європи досягли рівня 0,75-0,8. Отримані результати концептуально обґрунтували об'єктивну необхідність та практичну ефективність державного втручання у формування сталих виробничих практик аграрного сектору, а практичні рекомендації включали посилення умовності бюджетної підтримки через імплементацію принципу зеленої умовності, інтеграцію цифрового моніторингу та автоматизованого обліку для підвищення ефективності контролю, запровадження регуляторних пісочниць для еко-інновацій та гармонізацію патерналістської політики з принципом забруднювач платить через розвиток ринкових механізмів екологічного регулювання.

Ключові слова: державне регулювання; сільськогосподарська діяльність; екологічний контроль; сталий розвиток; природоохоронне законодавство



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Ensuring the labour rights of freelancers: Challenges and prospects for legitimising income

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Abstract

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The relevance of examining the protection of freelancers' labour rights and the de-shadowing of income derived from freelance activities arises from the high level of informal earnings in this sector and the current inability of Ukrainian legislation to apply effective legal mechanisms for state regulation and the enforcement of these workers' rights. Accordingly, the primary objectives and aim of this study were to identify methods for legitimising income from freelance work and to outline a set of legal measures aimed at encouraging the protection of freelancers' rights. The research explored the specific features of freelance activity in Ukraine and Europe, analysed the existing legal framework, and identified key gaps related to the regulation of freelance work in the region. A legal analysis was conducted to examine the dynamics of income generated from freelance work across various Ukrainian cities. Particular attention was given to an assessment that identified the weaknesses, strengths, risks and opportunities related to the further development of this form of employment. Through comparative legal analysis, the study highlighted key aspects of international experience in regulating freelance activity, which informed the development of recommendations aimed at addressing legal gaps in Ukrainian labour legislation. The practical

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relevance of the proposed recommendations lies in the potential to establish a new economic and legal framework for freelance work, enhance the effectiveness of state regulation, and introduce a range of measures to stimulate the de-shadowing of income earned through freelance activity

Keywords: legalisation; remote employment; labour market; virtual environment; remote work; information technologies

Introduction

The processes of informatisation, globalisation, and intellectualisation have rapidly transformed all spheres of public life in societies of the Global North. These developments have significantly influenced the socio-economic progress of individual states and the world at large, opening up new opportunities while also presenting new challenges. The labour market has undergone particularly notable changes under this influence. A growing number of professionals from various sectors now devote most of their working time to freelance projects, viewing them as an optimal means of realising their professional potential. Freelancing is gaining increasing popularity in both Ukraine and European Union countries, as evidenced by statistical data and analytical studies. In Ukraine, the number of freelancers is rising at a remarkable pace. For instance, while only 1,200 users were registered on the Freelancehunt platform in 2006, this figure had reached one million by 2021 (Zyuzin & Topchii, 2020). Demand for freelancers is also growing: in the first few months of 2023, demand increased by 84% compared to the same period the previous year (Bondarenko, 2023). The incomes of Ukrainian freelancers are also on the rise. Between 2019 and 2021, the average income of specialists working with foreign clients increased by 18%, while the total volume of transactions grew by 55% (Melnytska, 2021).

The European Union has also witnessed significant changes in the structure of its labour market. The employment rate in the European Union (EU) for those aged between 20 and 64

has shown a positive trend in recent years. Before the COVID-19 pandemic, this figure consistently increased, reaching 73.1% in 2019. However, in 2020, due to the pandemic's impact, the employment rate saw a 0.9 percentage point decrease. By 2021, it had recovered to pre-pandemic levels, and in 2022, the figure rose by 1.5 percentage points, reaching an all-time high of 74.6% (EU Jobs, 2022). This positive trajectory indicates a gradual recovery and growth in the EU labour market following the pandemic. However, it is worth noting that regional disparities in employment rates persist. For instance, in many Eastern and Baltic Member States, capital regions typically exhibit the highest employment levels, whereas in some Western countries, such as Belgium and Austria, capital regions show some of the lowest figures. Overall, the EU labour market continues to adapt to new challenges, including automation, technological advancements, and demographic shifts, which are influencing employment structures and the increasing popularity of remote working arrangements. Simultaneously, the EU labour market is feeling the effects of these changes, which are altering the structure of employment, boosting the popularity of remote work, and creating new regulatory challenges for the labour market.

Among contemporary studies of freelance labour relations, G. Torun's (2024) dissertation stands out, offering a compelling analysis of how neoliberal values shape the concept of freedom within freelancing. The author highlights that

these values often coincide with constraints on worker autonomy, creating a paradoxical situation where the freedom to set one's own schedule can, in fact, lead to increased exploitation. Complementing this, research by V. Pulignano *et al.* (2024) delves into the socio-technical aspects influencing worker autonomy, revealing that platform organisational structures can significantly impact the amount of unpaid labour. This underscores the importance of flexible platform management approaches to ensure fairness in employment.

Furthermore, S. Brooke and A. Rao (2024) discuss how the design of platform interventions can mitigate discrimination in freelance labour markets. Their study explores the effectiveness of various approaches that can promote more equitable access to opportunities and reduce instances of discrimination, making this a crucial contribution to understanding social justice in digital labour markets. The recent study by F. Beckmann and F. Hoose (2023) considers the broader implications of the platform economy for traditional labour and social institutions. The authors point out that platforms may undermine traditional institutions, leading to the de-institutionalisation of workers' rights and social protection. This highlights the urgent need to develop new regulatory mechanisms to safeguard labour rights in the context of the modern economy. At the same time, G. Gu and F. Zhu (2021) have noted that the growth of this type of remote employment enables countries to expand their share in the international market, enhances economic security, and contributes to reducing unemployment.

In his article, D. Zenkin (2024) explores the key challenges faced by freelancers and the selfemployed. These include a lack of stable income, unregulated labour relations, limited access to social protections, and unpredictable working conditions. The author emphasises that these factors increase the risk of exploitation and

hinder the protection of workers' rights in the gig economy.

In light of the above, particular attention should be given to the legitimising income earned through freelance activity, the development of a new economic and legal framework for this form of employment, and the formulation of recommendations aimed at improving the existing legislative framework. This can be achieved by examining the nature and functioning of freelance work, identifying its specific features and development trends, and analysing statistical data on freelancing in Ukraine and the EU. It is also important to study international experience, as this can support the assessment of how freelancers' labour rights are protected and help identify shortcomings and gaps in current legislation in this area.

Materials and Methods

The research undertaken in the field of legitimisation of income and the protection of freelancers' labour rights was carried out using methodological approaches that reveal both the theoretical and practical dimensions of the analysis. Through the application of a theoretical approach, the concept of freelancing, its defining features, and the principles underpinning this form of remote work were explored. A systemsbased approach enabled the analysis to take into account the current state of freelance activity in Ukraine and the EU, while also considering potential future developments. The method of systems analysis helped identify trends in the development of freelancing, particularly by city and outlined the distribution of freelance work across different sectors. It also facilitated an examination of income dynamics among freelancers and the average earnings from January to December 2024. To this end, the official report of the Freelancehunt platform (Bondarenko, 2023) was analysed, providing statistics on average earnings among Ukrainian freelancers, popular industries, and shifts in the structure of

commissioned work. Additionally, the Payoneer Global Freelancer Income Report (2024), which examines global income trends in the freelance sector, was utilised.

The historical and legal methodological approach supported the analysis of the development of legislative frameworks governing key aspects of labour rights in Ukraine and the EU. Through problem-based analysis, the main obstacles to the legalisation of income earned through freelance work were identified. A comparative analysis was conducted to examine the specific regulatory approaches to freelance activity in countries such as France (Labour Code of France, 2016) and Germany (Federal Ministry of Finance, 2021), highlighting potential solutions to issues concerning income legitimisation and the protection of freelancers' labour rights. The formal legal analysis contributed to the identification of the key features and challenges in the legal regulation of freelancing, particularly concerning informal earnings and the safeguarding of labour rights. This analysis was applied to relevant legislative documents from both Ukraine and the European Union that regulate remote work, the labour rights of freelancers, and the legitimisation of their income in Ukraine.

A number of legislative acts regulating freelance activity, remote work, and home-based employment in Ukraine have been examined. In particular, the Law of Ukraine No. 835-VIII "On Amendments to the Law of Ukraine "On State Registration of Legal Entities and Individual Entrepreneurs" (2015) provides a legal basis for freelancers to register as sole proprietors, thereby facilitating the legitimisation of their income. The Law of Ukraine No. 2164-VIII "On Amendments to the Law of Ukraine "On Accounting and Financial Reporting in Ukraine" (2017) outlines the specifics of income reporting and accountability for freelancers to tax authorities. The Labour Code of Ukraine (1996) establishes the foundations for

regulating labour relations, including provisions for remote work, which have gained particular relevance in recent years. Important additions include the Law of Ukraine No. 1213-IX "On Amendments to Certain Legislative Acts of Ukraine Concerning Improvement of Legal Regulation of Remote, Home and Flexible Work" (2021), which details the conditions for concluding contracts with non-fixed working hours, and the Law of Ukraine No. 1213-IX (2023), which sets out modern standards for organising work outside of traditional office settings.

Results and Discussion

First and foremost, it should be noted that a unified definition of freelance activity has not yet been established in contemporary academic discourse. Scholars such as V. De Stefano (2016) and U. Huws and N. Spencer (2018) often equate the terms "freelance activity", "remote work", and "telework". However, despite sharing several common features, these forms of employment differ in their legal nature. Freelance activity is typically characterised by an employment relationship between an employer and a worker, formalised through a labour contract, where digital technologies are used primarily as a means of communication. This provides grounds to classify the worker as a subject of labour law. Accordingly, remote work that is based on an employment relationship should not be considered part of commercial legal relations.

The term freelance activity is most appropriately defined as the work of an independent specialist who is not in an employment relationship with a specific employer or client, but instead carries out specific tasks and provides services to various clients based on civil law contracts (Law of Ukraine No. 3321-IX, 2021). However, this definition does not fully capture the specific features of how freelance activity is implemented in practice. Freelancing continues to develop rapidly in Ukraine against the backdrop of digitalisation and

globalisation. The adoption of the Law of Ukraine No. 2421-IX (2022) marked an important step towards the legal recognition of this form of work, establishing a legal basis for regulating cooperation between freelancers and clients, as well as for providing access to social protections. Nevertheless, despite this progress, several challenges remain unresolved. One key issue is access to social insurance, which – although formally provided for in current legislation (Law of Ukraine No. 1105-XIV, 1999) – remains limited in practice. Additional difficulties are related to the taxation of freelance income. Existing mechanisms often impose an excessive tax burden, which, as in the period prior to the adoption of new legislation, continues to drive many freelancers to operate informally. Cooperation with foreign clients further complicates the situation, as issues such as currency regulation and the protection of freelancers' rights in cross-border arrangements remain poorly regulated (Andrusiuk, 2020).

Remote work in Ukrainian legislation is regulated by the Law of Ukraine No. 3321-IX (2023), which introduced amendments to the Labour Code of Ukraine (1996). Article 60-2 defines remote work as the performance of employment duties outside the traditional workplace through the use of information and communication technologies. Employees are entitled to choose their place of work independently, and the terms of employment are governed by a labour contract, which ensures legal protection (Law of Ukraine No. 3321-IX, 2023). Home-based work has also been clearly regulated in Ukrainian legislation, particularly in Article 60-1 of the Labour Code of Ukraine (1996). Unlike remote work, home-based work is carried out at the employee's place of residence without significant use of digital technologies. The employer is responsible for providing the necessary equipment and ensuring appropriate working conditions for the performance of duties (Law of Ukraine No. 3321-IX, 2023).

The term freelance activity is not explicitly defined in Ukrainian legislation but is generally regulated through civil law contracts. Within the EU, the legal definition and regulation of freelance work vary across countries. In Germany, freelancers operate as independent professionals (Freiberufler), governed in part by the Law on the Organisation of the Trade of Germany (1869) and the Income Tax Law of Germany (1934). In France, freelancers work under the auto-entrepreneur (microenterprise) system, which is regulated by the Law of France No. 2008-776 "On the Modernisation of the Economy" (2008). Across the EU, freelance work typically falls under the domain of civil law and is not governed by labour law (Regulatory Scrutiny Board Opinion Fitness..., 2021).

Although European legal instruments, such as the Directive of the European Parliament and of the Council No. 2019/1152 (2019), establish fundamental rights for workers in the digital sphere, they do not extend to freelancers. This highlights the complexity of defining freelance work in legal terms and the diversity of national approaches. In all cases, the emphasis lies on adapting legislation to reflect emerging forms of employment.

In contemporary conditions, this form of employment is inextricably linked to the use of information and communication technologies. Unlike other types of economic activity, these technologies serve not only as a means of communication but also as a fully fledged environment for conducting business operations. This is reflected in freelancers' active engagement with virtual infrastructures (Geydor & Kurachenko, 2020). When identifying the virtual infrastructures commonly utilised by freelancers, it is important to highlight internet-based platforms for offering services and seeking employment. These include crowdfunding platforms, freelance marketplaces, professional social networks, online recruitment agency platforms, career counselling services, websites of professional associations and public

employment services, social media groups and pages, as well as various information systems and electronic payment systems.

This defining feature of freelance activity provides grounds to consider it as a form of economic activity within a digital environment. It involves the provision of services and the performance of tasks by an independent specialist who is not in an employment relationship with a specific client (Kozarezenko & Tochilina, 2019). Under Ukrainian legislation, the term “digital environment” is not explicitly defined in the Law of Ukraine No. 3321-IX (2023). However, its concept may be interpreted through the context of remote work. The law states that remote work involves carrying out job duties outside the traditional office setting using information and communication technologies. Thus, the digital environment can be understood as a space in which employers and workers interact using various digital platforms and communication tools (Law of Ukraine No. 3321-IX, 2023). In the EU context, the concept of a digital environment is also not clearly defined in specific directives, but its elements are regulated by such acts as the Digital Services Act (2022), the Digital Markets Act (2022), the General Data Protection Regulation (2016), and the Directive on Transparency and Predictability of Working Conditions (Directive of the European Parliament and of the Council No. 2019/1152, 2019). Within the framework of the digital economy and market, this issue is frequently considered in connection with A Digital Agenda for Europe (2010). This initiative emphasises the importance of developing digital technologies and platforms to foster economic growth, innovation, and competitiveness within the EU’s single digital market. A key aspect is that the digital environment in which freelance activity takes place requires specific mechanisms for protecting workers’ rights, as the relationships between freelancers and clients often lack clearly defined employment regulations. For

example, recent EU initiatives, such as the legislative package on platform work, aim to safeguard the rights of individuals working through digital platforms, including freelancers (Proposal for a Directive of the European Parliament..., 2021). To strengthen labour rights for freelancers at the EU level, it is essential to consider enforcement mechanisms that ensure compliance with provisions directly affecting member states – particularly regarding the social protection of individuals engaged in non-standard forms of employment (Cherevko, 2025).

Thus, in both Ukraine and the EU, there remains a need for further development and refinement of legal provisions that reflect the specific nature of work within the digital environment, while ensuring rights and protections for freelancers. This would represent a significant step towards creating favourable conditions for employment in the emerging digital economy. The link between freelancing and the information and communication environment gives this form of employment distinct characteristics that set it apart from other types of economic activity. In particular, the existence of a digital environment gives rise to another key feature, which may be described as a high entry threshold. On any freelance platform, this is reflected in the obligatory presence of rating systems, portfolios, reviews, and experience metrics, all of which shape a freelancer’s competitiveness and significantly influence their economic success. The same applies to freelancers operating through social media pages, online communities, or professional networks (Verenova, 2021). In the freelance economy, new social and economic relationships are emerging that reshape traditional models of interaction between workers and employers (Öberg, 2017). A specialist’s competitiveness depends largely on the platform they use, as well as the number of reviews, comments, and the overall popularity of the freelancer. Consequently, economic growth during the initial stages of a

freelance career tends to be slow, making it difficult for freelancers to integrate effectively as actors within economic relations. At this stage, their activities often demonstrate limited economic efficiency. Another defining feature of freelance work is the difficulty in formally documenting business transactions, largely due to the high level of anonymity within the digital space. It is common for platforms to prohibit direct contact between the client and the freelancer, a restriction particularly relevant in the Business-to-Consumer (B2C) segment. In this context, clients are often private individuals who are unwilling to enter into formal contracts with freelancers, which significantly complicates the legal formalisation of such relationships (Verenova, 2021).

The freelance market in Ukraine began to develop actively in 2006, with significant growth observed from 2011 onwards. The digital transformation of Ukraine's economy has been one of the key drivers of structural changes in employment, including the rise of freelancing as a form of work (Krylov, 2024). For instance, freelance income turnover between 2006 and 2011 amounted to 38 million USD, rising to 262 million USD between 2012 and 2017. The number of specialists also grew rapidly, reaching 190,000 per year between 2011 and 2016. As of 2021, the number of freelancers had increased to 776,000 (Freelancehunt, 2021). An analysis of freelancing in Ukraine from 2021 to 2024 indicates noticeable changes in earnings, as well as broader trends in the development of this segment of the labour market. In 2021, Kyiv held the leading position in terms of freelance payments, accounting for 23% of the total. Kharkiv ranked second with 13%, while Lviv and Dnipro each received 7%. The Odesa Region accounted for 5% of payments. Among freelancers working with foreign clients, a significant share of income growth was attributed to Lviv (33%), followed by Dnipro (24%) and Odesa (20%) (Freelancehunt, 2021). According to research

conducted between 2022 and 2024, the freelance market in Ukraine continued to grow despite challenges related to the war and economic conditions. Reports indicate that the number of freelancers in Ukraine increased by 15% in 2022, reaching approximately 892,000 individuals (Bondarenko, 2023), signalling a gradual recovery following the initial downturn. The average annual income of freelancers also rose by 25% in 2023 compared to the previous year, reaching around 15,000 USD (Bondarenko, 2023). In 2024, further growth was observed, with the number of freelancers increasing by an additional 10%, totalling approximately 981,200 individuals (Bondarenko, 2024), highlighting the resilience of Ukrainian freelancers in international markets. The main sources of income remained the markets of the USA, the United Kingdom, and Canada, which accounted for up to 70% of total freelance payments. In 2024, this amounted to approximately 700 million USD out of a total of 1 billion USD in freelance income in Ukraine (Upwork, 2024). One of the factors contributing to the growing popularity of freelance work in Ukraine has been the widespread adoption of outsourcing as an adaptive business response to changing economic conditions (Sakun *et al.*, 2020).

Compared to data from the European Union, the average income of freelancers in EU countries in 2023 was approximately 40% higher than in Ukraine. For instance, in Germany and France, the average freelance income reached 50,000 EUR – 60,000 EUR per year, whereas in Ukraine it ranged between 20,000 EUR and 30,000 EUR. Positive trends were also observed in Spain and Italy, where the average earnings of freelancers rose by 15% in 2023 compared to 2022, reaching approximately 40,250 EUR per year in Spain and 42,550 EUR in Italy (Freelancer Union, 2023).

In addition, Ukraine has witnessed significant growth in the number of freelancers working with international clients. As of 2024, this figure

had increased by 30% compared to 2022, reaching 1,159,600 freelancers (Bondarenko, 2024). This reflects the ability of Ukrainian professionals to adapt to new market conditions and to take advantage of the opportunities offered by international platforms. Despite ongoing challenges, freelance activity in Ukraine continues to demonstrate resilience and steady growth. This enables Ukrainian specialists to compete internationally and attract foreign clients, although current figures still lag behind those observed in EU countries (Hetmantseva, 2023).

As of 2024, Ukraine continues to hold a leading position in the IT freelance market in Eastern Europe. According to data from the freelance platform Upwork, the number of Ukrainian freelancer profiles on the platform exceeds 200,000 – an increase of 25% compared to 2022, when the figure stood at 160,000. The number of completed projects has reached approximately 2.5 million, reflecting a 30% rise from 2022 (1.9 million projects). This growth highlights not only the increasing number of freelancers but also the rising competitiveness of Ukrainian specialists in the international market (Upwork, 2024).

By comparison, the freelance market in European Union countries also shows dynamic growth. In 2023, more than 1.5 million freelancers from across the EU were registered on Upwork, indicating a growing interest in this form of employment. On average, freelancer earnings in EU countries exceed those of Ukrainian professionals by 20%-30%, due to both higher service rates and more developed markets (Upwork, 2024; Kovtun & Shynkarenko, 2024). In particular, freelancers in Germany, France and the Netherlands benefit from more generous remuneration, driven by stable economies and the expansion of start-up ecosystems. These conditions may encourage Ukrainian freelancers to enhance their skills and adapt to international standards in order to remain competitive.

Despite the overall growth of the gig economy, developing nations face considerable risks stemming from insufficient worker protection within the freelance sector, necessitating specific regulatory measures (Okunkova *et al.*, 2023). While Ukraine has seen positive developments, a persistent challenge remains: the lack of clear legal norms governing freelance activity. This regulatory void contributes to a high level of informal earnings, as many freelancers fail to pay taxes on their income. This negatively impacts the state's economy, leading to a shortfall in state budget revenue. It is crucial to highlight this issue of inadequate legislative regulation in Ukraine's freelance sector, which directly results in a substantial portion of informal earnings from this type of employment. According to research by the Visegrad Fund, over 40% of freelancer income remains in the shadows due to a lack of incentives for legalising their activities (Visegrad Fund, 2023). This situation significantly harms the state's economic segment, as professionals often do not pay income taxes or other mandatory payments stipulated by Ukrainian law. As of 2023, a significant proportion of Ukrainian freelancers – approximately 70% – are not paying taxes on income earned from foreign clients (Upwork, 2024). This situation stems from several factors, including insufficient legal regulation, a lack of clear mechanisms for monitoring freelancer income, and complexities associated with legalising their activities. Many freelancers believe that paying taxes would worsen their financial position, leading them to operate within the informal economy. By 2024, only 30% of freelancers in Ukraine were officially registered as individual entrepreneurs, which severely restricts the state's ability to collect tax revenue (CEDOS, 2024). While further legislative simplification and improved business conditions could alter this situation, freelance activity largely remains outside the formal legal framework, negatively impacting the country's economic

stability (European Business Association, 2024; NISS, 2024). The successful implementation of a strategy to legalise freelance work necessitates coordinated efforts between the government, businesses, and civil society, a conclusion supported by research into European integration cooperation (Stychynska *et al.*, 2024).

The Law of Ukraine No. 1724-VIII (2019) introduces provisions allowing Ukrainian contractors to forgo the requirement of signing paper-based contracts with clients based outside Ukraine. Instead, it enables the conclusion of electronic contracts through email correspondence, the acceptance of public offers, or the issuance of invoices. Furthermore, this law prohibits banks from demanding Ukrainian translations of contracts and elevates the status of an invoice to that of primary documentation, simplifying accounting procedures. While this legislation does not directly target freelance activity, it significantly aids in the de-shadowing of income and simplifies the organisational and legal framework for its conduct.

An analysis of Law of Ukraine No. 835-VIII (2015) and related legislative acts concerning the decentralisation of authority for the state registration of legal entities, sole proprietors, and civil associations highlights its positive impact on the formalisation of freelance work in Ukraine. This legislation introduced significant changes to the registration procedure for sole proprietors and legal entities. Notaries, local state administrations, local self-government bodies, and accredited entities were granted the authority to carry out state registration. Notably, this law also significantly reduced the number of procedural actions and required documents for the state registration process.

To address the issue of undeclared freelance activity and the legitimisation of income from this sector, it is crucial to analyse its underlying causes. One of the key factors is the high level of corruption in Ukraine and the widespread mistrust

among potential entrepreneurs towards the tax system and government institutions. This fosters a perception among freelancers that paying taxes is unjustified, leading many to operate in the informal sector. In addition, the instability of tax legislation plays a significant role in this context. Frequent changes in tax policy were recorded in 2023-2024, creating further difficulties for freelancers in planning their income and expenses. Ongoing reforms have contributed to a sense of uncertainty among entrepreneurs, often prompting tax avoidance (CEDOS, 2024).

Moreover, the long-standing culture of the informal economy in Ukraine has encouraged widespread tax evasion. This practice has become normalised in society, with many freelancers seeking ways to minimise their obligations, resulting in low levels of tax compliance. Therefore, tackling the issue of legitimising freelance activity in Ukraine requires a focus on rebuilding trust in public institutions, stabilising tax legislation, and introducing incentive mechanisms for those operating within the formal economy.

Problematic factors affecting the formalisation of freelance activity in Ukraine include the obligation for freelancers to maintain primary documentation. One of the key challenges in the freelance market remains the effective taxation of cross-border employment, particularly when facilitated through freelance platforms. This area requires in-depth analysis from both the perspective of corporate demand and regulatory impact (Rexhepi *et al.*, 2024). For tax purposes, taxpayers are required to maintain appropriate records, as stipulated in Clause 44 of the Tax Code of Ukraine (2011). This provision mandates the recording of income, expenses and other indicators that define taxable objects or tax liabilities, using primary documents, financial statements, accounting registers and other documents specified by current legislation for the calculation and payment of taxes and fees. Although accounting

procedures have been simplified through the introduction of electronic services and automation – as set out in the Law of Ukraine No. 996-XIV “On Accounting and Financial Reporting in Ukraine” (1999), as amended by the Law of Ukraine No. 2164-VIII (2017), which recognises invoices as primary documents – the obligation to maintain primary documentation remains burdensome for freelancers. This is largely due to the specific nature of freelance work, which does not always allow for the proper documentation of every transaction. As a result, the requirement to maintain primary documentation, as stated in the Tax Code of Ukraine (2011), does not contribute effectively to encouraging the legalisation of freelance activity.

The revision of legislation concerning freelance activity in Ukraine during 2023-2024 has highlighted several serious issues regarding the protection of freelancers’ labour rights. Despite certain positive legislative developments, some aspects remain inadequate. First, the absence of clear legal regulation continues to pose a significant challenge. The Labour Code of Ukraine (1996) contains provisions regulating remote and home-based work (Articles 60-1 and 60-2). However, these provisions leave several important matters unresolved. For instance, the legislation does not establish clear rules for evaluating work performance or monitoring task completion by remote workers. This results in legal ambiguity in employer-employee relations, potentially leading to disputes (Labour Code of Ukraine, 1971). Second, there are inconsistencies in how employers’ obligations are interpreted, particularly with regard to providing equipment and reimbursing expenses for internet, electricity, and other resources (Visegrad Fund, 2023). Finally, the current provisions lack mechanisms to protect workers from excessive workloads or violations of their right to rest – factors that are critically important in the modern labour environment.

Zero-hours contracts, which allow employees to carry out work based on the employer’s needs, remain inadequately regulated. The main issue is the absence of clear criteria regarding the minimum amount of work that must be offered to the employee. This can lead to situations where workers are not given sufficient hours to secure a basic income (Labour Code of Ukraine, 1971). In addition, the lack of clear provisions on remuneration creates opportunities for employer abuse, such as the implementation of non-transparent payment systems. Another significant concern is the limited access these workers have to social protections, particularly unemployment insurance (Sudakov & Lisogor, 2022). Contracts involving home-based workers also reveal shortcomings in current legislation. The primary issue is the lack of clear legal norms defining the status of such workers. As a result, a large share of employment relationships in this sector remains informal, which reduces the level of social protection available (Labour Code of Ukraine, 1996).

It is important to note that current legislation contains no provisions regarding occupational safety for home-based workers. While freelancing offers opportunities for creative freedom, such benefits require further examination in the context of limited labour protections (Öberg, 2024). Working conditions in private households remain outside the scope of state supervision, increasing the risk of rights violations (Home Work Convention No. 177, 1996). The lack of social insurance mechanisms for this category of workers further exacerbates their vulnerable legal status (Visegrad Fund, 2023). The existing issues in the regulation of remote, zero-hours, and domestic work under the Labour Code of Ukraine (1996) highlight the need for improving relevant legal provisions. To achieve this, it is advisable to refer to international standards, such as the Home Work Convention (1996), and consider the practical experience of other countries in regulating sim-

ilar employment relationships. Such measures would help reduce legal uncertainty and ensure adequate protection for workers (Sudakov & Lisogor, 2022)

The insufficient protection of freelancers' rights presents another major concern. At present, there are no legislative mechanisms to guarantee freelancers the same entitlements as traditional employees. In particular, freelancers are not entitled to social benefits such as paid leave or sick pay, as these matters are not regulated under the current legal framework (Labour Code of Ukraine, 1996).

Identifying gaps and shortcomings in legislation is a crucial step towards improving the current situation. For instance, the Labour Code of Ukraine (1996) does not address the specific nature of freelance work, resulting in legal uncertainty. As a consequence, many freelancers remain without adequate protection. According to international standards such as the Home Work Convention (1996), which concerns home-based work, participating states are required to ensure the protection of workers performing tasks outside the employer's premises. Ukraine should take these principles into account when developing legislation on remote and home-based work. This involves not only regulating freelance activity but also granting freelancers the same rights as traditional employees. Accordingly, labour law reform is necessary to accommodate the unique features of freelance work. This includes extending social protections and clearly defining the rights and responsibilities of freelancers in legislation, which would support the legalisation of their activities and help reduce the scale of undeclared income.

The primary cause of this issue lies in the ability to conduct transactions outside the banking system or to credit funds to accounts used exclusively for freelance activity. Freelancers often employ various methods to convert electronic money into cash through private individuals,

transfer funds in the name of private persons via international payment systems, or settle payments in cash or cryptocurrency for completed tasks and services rendered. These forms of payment enable freelancers to avoid income declarations and make it difficult for tax authorities to verify financial transactions. This creates significant obstacles to transparent income accounting and government oversight (Law of Ukraine No. 2346-III, 2001).

Another contributing factor is the difficulty, and often impossibility, for state bodies to effectively monitor and detect the use of hired labour by freelancers. It is important to note that freelancers usually operate from closed offices or home environments, making it extremely challenging, if not impossible, for state authorities to ascertain the number of such workers. This suggests that the current mechanisms for legalising freelance activity in general, and legitimising income derived from it, are largely ineffective. The core issue with these mechanisms is that freelance activity is not sufficiently differentiated from other types of work, and its unique characteristics are largely ignored.

The adoption of several laws reflecting current trends in labour relations and the digital economy demonstrates the legislator's effort to adapt the legal framework to contemporary conditions. The Law of Ukraine No. 3321-IX "About Digital Content and Digital Services" (2023) regulates the creation, exchange, sale, and use of digital content and services. A key aspect of this legislation is the protection of consumer rights in the context of digital services and the establishment of clear obligations for service providers. Although this law addresses the digital economy more broadly, its provisions may be particularly relevant for freelancers engaged in the provision of digital services. The Law of Ukraine No. 2421-IX (2022) introduces a framework for regulating labour relations involving non-fixed working

hours. This approach allows employers to engage workers in response to fluctuating workloads, while also ensuring minimum guarantees for employees. For instance, a worker is entitled to a minimum amount of work, as specified in the contract.

The Law of Ukraine No. 1213-IX (2021) establishes clear regulations for organising work outside the traditional office setting. It outlines mechanisms for reimbursing expenses incurred by remote workers and safeguards their right to rest. These legislative changes provide a foundation for improving the legal regulation of freelance work; however, certain gaps remain. In particular, Ukrainian legislation does not yet fully align with international standards, such as the Directive of the European Parliament and of the Council No. 2019/1152 (2019), which sets out specific protections for workers engaged via digital platforms. Incorporating these standards into national legislation would help to reduce legal uncertainty and facilitate the integration of Ukrainian freelancers into the global economic landscape.

In examining the experience of France, new taxation rules have been introduced for freelance professionals (Labour Code of France, 2008), aimed at facilitating the process of starting a business and registering as a freelancer. Individuals commencing freelance activity may opt to pay income tax either under the personal income tax regime or the corporate income tax regime. A significant innovation in French policy is the option for freelancers to work under the portage salarial system or to join a worker cooperative, thereby avoiding the need to register a separate business activity. It is also worth noting that freelancers in France may operate as sole traders under the *Entreprise Individuelle* model. This implies full personal liability for business-related obligations, which creates a requirement to obtain insurance that offers protection against creditors in the event of financial difficulties (Service-public.fr, 2023).

In France, it is legally permissible to work as an independent or freelance professional in certain sectors, particularly in consultancy roles, through the portage salarial system. Under this arrangement, the freelancer signs a contract with an umbrella company, which assumes the role of the employer and takes responsibility for administrative matters, including tax payments. The umbrella company effectively acts as an employment agency: it registers the freelancer as an employee, pays social security contributions, fulfils tax obligations, and handles other mandatory payments to the state. The cost of these services typically amounts to 7%-10% of the freelancer's monthly invoice. This system enables freelancers to access a range of social benefits, including insurance, healthcare, pension contributions, unemployment support, and other entitlements available to regular employees in France (Labour Code of France, 2008).

Legislative regulation of freelance activity in EU countries varies depending on the legal and economic context of each state. For example, in France, freelancers can operate under various legal forms, such as the status of an individual entrepreneur (*Entreprise Individuelle*) or through the portage salarial system, which enables access to social benefits including pension coverage and health insurance (Labour Code of France, 2016). In Germany, freelancers may also work as self-employed individuals and receive certain tax benefits, provided their work meets the legal criteria for self-employment (Federal Ministry of Finance, 2021). However, several serious issues are associated with freelance work in the EU. First, the lack of comprehensive regulation in the freelance service market can lead to exploitation by clients who may fail to provide fair compensation. Second, freelancers often face barriers in accessing social protection, as their self-employed status does not always afford them the same rights as employees (Eurofound, 2022).

Ukrainian legislation contains significant gaps in the regulation of freelance work. In particular, the Labour Code of Ukraine (1996) lacks clear provisions defining the legal status of freelancers. Labour law remains focused on traditional employment relationships, leaving freelancers – who primarily operate under civil law contracts – outside the established legal framework. The absence of a formal legal definition of freelance activity creates legal uncertainty, complicating the protection of rights for this category of workers.

The Law of Ukraine No. 5067-VI “On Employment of the Population” (2012) also fails to address the specific nature of freelance work. For instance, state employment support programmes do not include measures aimed at encouraging or regulating freelance activity. As a result, freelancers have limited access to public employment services and are unable to claim unemployment benefits. In Ukraine, freelancers primarily work under civil law contracts, which do not provide the same rights and guarantees as employment contracts. The absence of mandatory provisions regarding sick pay, paid leave, and social insurance leaves this category of workers particularly vulnerable (Labour Code of Ukraine, 1996). These shortcomings create additional risks for freelancers, especially in times of economic instability when access to public social support is critically important.

In addition to legislative gaps, Ukraine lacks state-run training and upskilling programmes specifically designed for freelancers. Employment centres do not offer services tailored to this category of workers, which limits their ability to remain competitive in the labour market. By contrast, EU countries such as Germany and France have dedicated support programmes for the self-employed, which include professional training and consultancy services (Labour Code of France, 2016; Federal Ministry of Finance, 2021).

To address these issues, it is necessary to develop regulatory acts that take into account the

specific nature of freelance work. In particular, special provisions should be introduced into the Labour Code of Ukraine (1996), or a separate law should be adopted to regulate freelance activity. Furthermore, it is essential to align national legislation with international standards, such as the Directive of the European Parliament and of the Council No. 2019/1152 (2019), and to establish social protection mechanisms for freelancers, including access to health insurance and pension contributions.

Conclusions

The study of freelance activity in Ukraine has confirmed its rapid growth, accompanied by an increase in both the number of professionals and the volume of work. Between 2023 and 2024, the number of freelancers in Ukraine rose by 30%, indicating a growing preference for this form of employment. The highest growth in income and project volume was recorded in the fields of IT, design, and consulting – areas that are among the most competitive both domestically and internationally. This trend reflects the high level of adaptability demonstrated by Ukrainian professionals to the demands of the digital economy and the international market.

An analysis of the legislative regulation of freelance activity revealed significant gaps in the legal framework. The Labour Code of Ukraine does not take into account the specific nature of freelance work, as it focuses exclusively on traditional employment relations. Most freelancers operate under civil law contracts, which do not provide access to social guarantees such as paid sick leave, holidays, or pension coverage. The lack of adequate legal regulation results in legal uncertainty, making it more difficult to protect freelancers’ rights and to legitimise their income.

A comparative analysis of the European Union’s experience has revealed several practices that could be adopted in Ukraine. In France, the

portage salarial system allows freelancers to access social guarantees equivalent to those of salaried employees, including pension and health insurance coverage. In Germany, freelancers may benefit from tax incentives, provided their work meets clear criteria for self-employment. These approaches help maintain a balance between labour flexibility and social protection. Freelancers in Ukraine remain one of the most vulnerable categories of workers due to the absence of effective social protection mechanisms. In addition, the lack of state-supported professional development programmes limits their competitiveness, particularly amid rapid technological change. This makes it more difficult to maintain high service quality and poses a risk to their long-term economic potential.

An analysis of the regulatory framework shows that certain laws – particularly Law of Ukraine No. 835-VIII and Law of Ukraine No. 2164-VIII – establish basic conditions for the legalisation of freelance activity. At the same time, the Labour Code of Ukraine requires substantial revision to reflect modern forms of employment, including remote work and variable working hours. The legalisation of freelance work in Ukraine holds considerable economic and social potential. Formalising freelance income would help reduce the informal economy, increase tax revenues, and create favourable conditions for the

sustainable development of the digital economy. It would also enhance the protection of freelancers' labour rights, including access to healthcare, pensions, and other social guarantees.

Based on these findings, it is recommended to develop dedicated legislation addressing the specific features of freelance work, including its economic, social, and legal dimensions. In addition, the Labour Code of Ukraine should be revised to include clear provisions for freelancers, remote employment, and non-fixed working hours. It would also be appropriate to design national programmes for the professional development of freelancers, drawing on international experience, and to introduce social insurance mechanisms for this category of workers. Implementing these measures would allow freelancers to be fully integrated into the legal system and ensure an adequate level of social protection, thereby contributing to the growth of Ukraine's economy.

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Conflict of Interest

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Забезпечення трудових прав фрілансерів: проблеми та перспективи легітимізації доходів

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Анотація

Актуальність дослідження забезпечення трудових прав фрілансерів та детінізації доходів, отриманих від фрілансу обумовлена високим рівнем тінізації доходів від даного виду діяльності і неможливістю законодавства України застосовувати правові інструменти державного регулювання дотримання прав цієї категорії робітників. Відповідно до цього, ключовими задачами та цілями стало визначення способів легітимізації доходів, отриманих від фрілансерської діяльності та виокремлення низки правових заходів, що будуть сприяти стимулюванню захисту прав фрілансерів. В ході проведення роботи було визначено особливості фрілансерської діяльності в Україні та Європі, проаналізовано чинну законодавчу базу, виокремлено основні прогалини, пов'язані з реалізацією фрілансерської діяльності в регіоні. Був здійснений правовий аналіз, що розкриває динаміку отримуваних доходів від фрілансу в розрізі міст України. Особливої уваги заслуговує проведений аналіз, в основу якого покладено визначення недоліків, переваг, загрози та можливості щодо подальшої тенденції розвитку даного виду трудової зайнятості. Завдяки порівняльно-правовому аналізу було виокремлено особливості міжнародного досвіду регулювання фрілансерської діяльності, що допомогло у визначенні рекомендацій щодо подолання правових прогалин українського законодавства у сфері трудового права. Практична значимість виокремлених рекомендацій надає можливість у визначенні нового господарсько-правового бачення фрілансерської діяльності, підвищити рівень ефективності державного регулювання фрілансерської діяльності, введення низки заходів, що допоможуть стимулювати процес детінізації доходів та, отриманих від фрілансу

Ключові слова: легалізація; дистанційна зайнятість; ринок праці; віртуальне середовище; віддалена праця; інформаційні технології



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Assessment of the effectiveness of international legal mechanisms for environmental protection: Environmental issues in the practice of international courts

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Abstract

This study aimed to examine international legal standards and the practices of international judicial bodies in the field of environmental protection. To achieve this aim, methods of structural, comparative-legal, and hermeneutic analysis were applied. It was established that the majority of international legal instruments, such as conventions and recommendations, rely on voluntary compliance, which significantly limits

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their practical effectiveness. Nation states retain the right to determine independently the means of fulfilling their international obligations, particularly in cases where such obligations may conflict with national sovereignty. However, international judicial institutions dealing with interstate disputes often demonstrate limited effectiveness in ensuring the protection of individual environmental rights, due to protracted proceedings and the limited impact of their decisions. It was noted that during wartime and in post-conflict recovery, financial and human resources are typically redirected towards rebuilding infrastructure and providing humanitarian assistance, which may reduce attention to the implementation of international environmental standards. Without adapting general norms to specific conditions, their implementation may prove ineffective or even counterproductive, thereby diminishing their practical utility in environmental protection. Emphasis was placed on the importance of establishing an environmental court in Ukraine as a means of strengthening environmental justice. The experience of the United States of America in environmental regulation has demonstrated the importance of establishing an effective hierarchical system of state bodies that ensures a balance between federal and local levels, alongside the introduction of mechanisms for public oversight. It has been established that drawing on international experience, integrating international standards, and implementing effective monitoring systems are critically important for enhancing environmental security and promoting sustainable development in Ukraine

Keywords: martial law; legal regulation; environmental rights; European Court of Human Rights; International Court of Justice

Introduction

The primary cause of the intensification of global environmental problems is the unsustainable use of natural resources (Tackling the global..., 2023). Countries with low levels of environmental security, which attempt to overcome economic difficulties through intensive exploitation of natural resources, exert a negative impact on the environment by depleting these resources (Rich countries use..., 2024). At the same time, the war in Ukraine, triggered by the Russian invasion, has had catastrophic consequences for the environment, including the destruction of infrastructure, pollution of air, soil, and water, as well as the spread of hazardous waste, thereby deepening the ecological crisis. The destruction of natural ecosystems and agricultural land during hostilities, together with large-scale fires and chemical contamination, poses threats to biodiversity and human livelihoods, which further underscores

the urgency of environmental security for the international community (EcoZagroza, 2024).

International treaties on environmental protection serve as important legal mechanisms for addressing ecological challenges; however, even after the signing of such agreements, states and their entities often continue to cause damage to ecosystems. According to information provided by the State Environmental Commission of Ukraine, by January 2023, the environmental damage resulting from Russia's war against Ukraine had exceeded 688 billion hryvnias (Over the 11 months..., 2023). One of the main reasons for such violations is the absence of effective mechanisms for monitoring the fulfilment of international obligations.

The international system of environmental agreements is characterised by fragmentation, since most treaties address only specific aspects

of environmental protection or particular types of pollution. A significant number of such agreements lack effective enforcement mechanisms to ensure compliance. Nevertheless, there is a growing need for international judicial bodies to be involved in addressing environmental issues. The role of international courts is becoming increasingly important, as their activities focus on ensuring state compliance with environmental standards, which is crucial in combating violations of international environmental law.

An analysis of the effectiveness of international legal mechanisms in the field of environmental protection, particularly in the context of international judicial practice and law enforcement in the United States, highlights their limited and fragmented implementation, which requires further improvement. In the study by Yu. Pidhorodynska (2023), the legal status and functional capacities of bodies responsible for international monitoring of treaty compliance were examined. The legal status and procedures of 17 committees responsible for the implementation and oversight of major international environmental conventions were examined. Based on an analysis of the legal status, structure, and competences of these specialised bodies, recommendations were provided for their improvement, particularly with regard to measures in cases of non-compliance. These recommendations emphasise the importance of combining both facilitative and coercive approaches to the fulfilment of international environmental obligations.

In the study by R. Zhen *et al.* (2024), the need to strengthen oversight of international mechanisms of environmental responsibility and to improve national legal systems is underlined. It was established that such oversight contributes to the effective integration of international environmental law into national systems, thereby ensuring mutual benefits for environmental protection and state interests. Special attention is given to the

importance of a cautious approach to criticism and changes in the sphere of soft law, with emphasis placed on preserving universal legal principles. The study by A. Levenets (2022) addresses environmental protection in the context of international judicial practice. A connection was identified between environmental protection and human rights, as the right to a clean and safe environment has been recognised internationally as inalienable. The necessity of including a distinct right to a clean and safe environment in the catalogue of convention rights is substantiated, which would strengthen the role of the ECtHR in international oversight of environmental protection and expand its influence on the environmental policies of member states.

The studies by P. Wesche (2021), A.C. Omarka (2022), and A. Corcaci (2023) focus on the national implementation of decisions by European and international judicial bodies in the context of environmental conflicts. These studies analyse the integration of judicial rulings with governance measures concerning compliance with, or breaches of, multilateral environmental agreements. In another study, J.M. Angstadt (2023) highlights the necessity of establishing specialised environmental courts to ensure the effective protection of the environment from harmful impacts. Discussions on the rapid and expanded establishment of such courts and tribunals raise important questions about their influence on international environmental law and global environmental governance.

The study by M. Hrushko (2023) concentrates on the current state of international legal regulation of environmental protection, with particular attention to liability for environmental damage caused during the conflict between Russia and Ukraine. The research of M.L. Banda (2020) demonstrates the distinctive features of litigation related to climate change in the United States of America. It was established that climate change has become the subject of numerous

political debates in the USA, where climate scepticism – casting doubt on scientific evidence – frequently emerges in public discourse. At the same time, the research of X. Shao (2021) focuses on counterclaims concerning environmental protection and human rights in investment arbitration. The findings show that the main obstacles to such claims stem from national legislation rather than international law, making them a potential alternative to national courts. This has implications for the jurisdiction and admissibility of counterclaims, as the complexities of domestic legislation affect arbitral proceedings.

This study aimed to assess the effectiveness of international legal mechanisms for environmental protection. To achieve this aim, the following tasks were defined: to review the main international legal standards in the field of environmental protection; to analyse the practice of international judicial institutions concerning environmental protection; to evaluate environmental regulation in the United States of America; and to identify possible ways of improving the system of environmental protection in Ukraine.

Materials and Methods

The research methodology was based on a combination of the conceptual framework of international environmental law and the theory of international relations. In this context, the legal theory of state responsibility under international law and the concept of sustainable development were applied. The analysis included an examination of legal acts, which enabled an assessment of the current state of environmental regulation and the identification of potential avenues for its improvement. Within this framework, provisions from several legal sources were considered, including the Law of Ukraine No. 3477-IV (2006), which sets out the basic principles of state policy in the environmental field, and the Constitution of Ukraine (1996), which enshrines the

fundamental rights of citizens in the sphere of environmental protection. The study also made use of empirical data, including judgments of the European Court of Human Rights in *Guerra and Others vs. Italy* (1998), *Hutton and others vs. the United Kingdom* (2003), *Hrymkovska vs. Ukraine* (2011) and *Dubetska and others vs. Ukraine* (2011); the report of the State Environmental Inspectorate of Ukraine of 25 January 2023 (*Over the 11 months..., 2023*); and official data of the Armed Forces of Ukraine on environmental threats (EcoZagroza, 2024). In addition, decisions of United States courts were examined, notably *United States v. Sioux Nation of Indians* (1980), *Friends of the Earth, Inc. v. Laidlaw environmental services (TOC), Inc.* (1999), and *Massachusetts v. Environmental Protection Agency* (2006), as well as the judgment in *Pulp mills on the river Uruguay (Argentina v. Uruguay)* (2010).

Several methods of scientific inquiry were applied in the study. The system-structural method was used to assess the impact of judicial decisions on the development of international environmental law within the broader framework of international law. The functional method was applied to analyse the practical aspects of implementing international legal mechanisms of environmental protection and their role in ensuring compliance with environmental obligations. Particular attention was devoted to the activities of national authorities, international courts, and environmental institutions. The use of the hermeneutic method contributed to an understanding of the nature and significance of international legal norms in the field of environmental protection. This approach involves a detailed examination of key international agreements, including the *Convention on the Protection of Human Rights and Fundamental Freedoms* (1997), *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* (2005), and the United Nations

Convention on the Law of the Sea (1999), together with their adaptation to national legal systems. The formal-legal method was applied to the study of legal norms, international agreements, conventions, and judicial decisions governing environmental matters. The use of this method enabled an in-depth analysis of international legal mechanisms for environmental protection, particularly in the context of international judicial practice and its influence on environmental law.

Results and Discussion

Environmental crisis and state interests in the 21st century. International environmental law is an important branch of public international law, encompassing legal norms and principles that regulate relations between states in the field of environmental protection. According to H. Arjjumend (2024), significant transformations took place in this area between the 1970s and the 2020s, directly linked to the development of regulations governing activities that may cause environmental risks. This is especially relevant in the context of global climate change, increasing environmental pollution, and the depletion of natural resources, which demand more active participation by states in international efforts to safeguard the environment.

An important achievement in this field has been the emergence of new legal norms that clearly set out the obligations of national legal entities with regard to environmental standards. A prominent example is the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (2005). This convention, officially known as the Aarhus Convention, is designed to guarantee three fundamental rights: the right of access to environmental information, the right to participate in decision-making processes that may affect the environment, and the right of access to justice in cases of violations of environmental

rights. Under the provisions of the Aarhus Convention, participating states are required to ensure public access to environmental information, including data on the state of the environment, the consequences of activities that may cause harm, and measures taken to protect ecosystems. Furthermore, the Convention underscores the importance of involving citizens in decision-making on environmental issues, with the aim of ensuring transparency and accountability of public authorities. The provisions of the Aarhus Convention become binding on states once ratified and incorporated into national legislation, necessitating the adaptation of existing legal systems to the new standards of environmental transparency and public participation. This requires states to develop and implement domestic mechanisms to safeguard the rights enshrined in the Convention, including the establishment of appropriate bodies responsible for providing environmental information and mechanisms for public participation in decision-making processes.

Once ratified, international norms take effect as part of national legislation, regulating legal relations between actors in the context of environmental protection. This includes, in particular, conducting environmental impact assessments for infrastructure projects, monitoring industrial emissions, managing waste, and ensuring the protection of citizens' environmental rights. Ratification of international agreements substantially reshapes national legal systems by strengthening mechanisms of environmental protection. Research in the field of environmental law is continually evolving, which necessitates the regular updating of legal systems in this area. However, despite the broad scope of the existing framework, it cannot be said to fully resolve persistent problems, particularly those concerning effectiveness, regulation, and enforcement.

The effectiveness of international environmental law depends on states' compliance with

their obligations under international agreements. In this regard, the issue of enforcement mechanisms becomes crucial. A trend can be observed towards changing approaches within international law, signalling a departure from traditional methods of regulation. As A. Poorhashemi (2022) observes, in classical areas of international law, compliance with treaties is often associated with the concepts of breach and state responsibility, although in practice, such mechanisms are applied relatively rarely. In the context of international environmental law, these phenomena are even less common.

States rarely invoke mechanisms of state responsibility or traditional dispute resolution methods to ensure compliance with international environmental norms. This is largely because classical methods of resolving international disputes – typically bilateral and adversarial in nature – do not always adequately address the needs of environmental conflicts, which are often multilateral. Environmental disputes, such as water pollution, biodiversity loss, and climate change, generally affect the interests of multiple countries, complicating their resolution. In such cases, overlapping legal, economic, and social interests may arise, which do not always align. This creates a need for alternative dispute resolution methods that can better accommodate the multilateral nature of environmental challenges.

The conflict surrounding the Mekong River provides a vivid example of these difficulties (Mekong River..., 2021). The construction of dams along the river, which flows through Laos, Cambodia, Thailand, and Vietnam, has caused significant ecological and social problems. Each of these countries has its own interests and perspectives regarding the river's resources, making it difficult to reach a collective solution. As international courts have been unable to resolve the issue due to the absence of a unified regulatory approach and the divergent positions of the parties involved, the countries in the region have sought

to address the conflict through negotiations within regional platforms. One such platform is the Mekong River Commission, established to coordinate the efforts of the countries along the river in matters of sustainable development and resource management. The Commission seeks to facilitate dialogue between states, reconciling their interests and developing joint solutions that meet environmental standards while addressing the needs of all participants. Consequently, contemporary environmental conflicts require new approaches to resolution that take into account the complex and multifaceted nature of environmental issues. Interaction between states through regional platforms can become an important tool in achieving effective and equitable outcomes in environmental protection.

Environmental protection through international agreements faces numerous challenges. The issues addressed by these agreements are often not perceived as urgent, making it difficult to persuade states to enter into agreements that may affect their economic interests or sovereign rights. This results in a cautious approach by states towards strict obligations that carry potential liability. For example, water disputes between Turkmenistan and Uzbekistan remain unresolved due to political and economic interests (Central Asia..., 2002).

Furthermore, at the global level, there is no single centralised body with mandatory jurisdiction to enforce decisions regarding international environmental agreements. Most international legal instruments, such as conventions and recommendations, rely on voluntary compliance. The absence of a specialised institutional body responsible for ensuring adherence to international environmental norms significantly reduces the likelihood of their effective implementation.

Based on the foregoing, studies by T. Ety *et al.* (2021) and E. Aqimuddin and A. Latipulhayat (2023) indicate the necessity of establishing a neutral and independent institution

to ensure equal compliance with international environmental standards by all countries. Such an organisation could employ educational initiatives, financial support, and sanctions as tools to encourage compliance with agreements, while also performing monitoring functions necessary to enforce obligations effectively.

However, it is important to recognise that creating such a neutral and independent body with enforcement powers may face significant resistance from sovereign states. The implementation of international sanctions or financial incentives as instruments of pressure could be perceived as a threat to sovereignty, potentially leading to additional political disputes and conflicts. For example, in 2010, the UN, the USA, and the EU imposed stringent sanctions on Iran due to its nuclear programme (Timeline of U.S..., 2024). These sanctions were perceived by Iran as an attempt at external interference in domestic affairs, resulting in increased anti-Western sentiment and the strengthening of nationalist ideas. Furthermore, a centralised organisation – even if independent – may become excessively bureaucratic, limiting its effectiveness, particularly in the context of multilateral international agreements where state interests often diverge and each country has its own vision of how to achieve environmental objectives. The lack of centralised organisation and ineffective mechanisms for enforcing environmental obligations has sparked interest in establishing a monitoring system to ensure compliance with international environmental agreements, potentially enhancing their effectiveness. This phenomenon can be explained by several factors. One of the most common arguments is that strengthening the impact of international environmental agreements on national economic interests has raised concerns among participating states about the risk of unfair economic practices by countries that fail to comply with these obligations (Bibia *et al.*, 2024).

One aspect of this issue is that increased demand for limited natural resources and competition for access to them heightens concerns regarding compliance with international environmental agreements (Bodansky, 2020). As competition for resources intensifies, states pay greater attention to the conditions of such agreements, recognising their importance in regulating resource use. A trend can be observed towards taking international environmental obligations more seriously. However, although states may appear more concerned with fulfilling international environmental agreements due to growing resource needs, in practice, these agreements often become secondary to other economic priorities. National governments frequently prioritise economic development and industrial growth, even at the expense of breaching environmental obligations. This is evident in cases where international agreements remain ineffective due to inadequate oversight or the absence of enforceable mechanisms. In 2010, the United Nations General Assembly adopted Resolution No. 64/292 (2010), recognising access to clean water and sanitation as a fundamental human right.

However, despite this resolution, many states – particularly in Africa and South Asia – continue to face challenges in ensuring access to clean water due to intensive exploitation of natural resources in pursuit of economic growth (Kwakwa, 2024). This example highlights how economic priorities can outweigh environmental obligations and how the absence of enforcement mechanisms can lead to the ineffectiveness of international agreements. Conclusions regarding the development of international environmental law in the twenty-first century point to a significant transformation of its norms, particularly in relation to activities that pose potential environmental risks. International agreements, such as the Aarhus Convention, influence the adaptation of national legislation to meet international

requirements; however, their effective implementation remains uncertain. The main challenges are the lack of centralised enforcement mechanisms and the precedence of economic development priorities over environmental interests. This underscores the need for independent institutions to monitor compliance with environmental obligations.

Environmental protection in the practice of international courts. International environmental law is a key component in shaping global jurisprudence, as it defines legal approaches to environmental protection through established norms and principles. The importance of interaction between judicial processes and international environmental law stems from the influence of emerging legal principles and norms within international law on the improvement of the legal framework for environmental protection. Judicial decisions, advisory opinions, and rulings of international courts, including the International Court of Justice, demonstrate a shift in the perception of state sovereignty, which was previously seen as an obstacle to global environmental governance. For example, in the case of *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* (2010), the International Court of Justice examined the legality of applying environmental standards in the context of international river management. The Court concluded that states have obligations to comply with international environmental norms, even if this may limit their sovereignty.

The transition from the concept of absolute sovereignty to the management of natural resources based on principles of fairness and rationality opens new horizons for the development of legal frameworks for environmental protection. Analysis of the European Court of Human Rights (ECtHR) jurisprudence in cases concerning the protection of environmental rights shows that applicants often invoke Articles 2, 6, 8, 10, 13, 34, and 35 of the Convention on the Protection of Human Rights and Fundamental Freedoms (1997).

For instance, in the *Case of Guerra and Others v. Italy* (1998), issues were considered relating to environmental threats and public health. In 1998, a company engaged in the production of mineral fertilisers and chemicals was classified as high-risk, highlighting the potential dangers of its activities for both the environment and the health of the population. Applicants highlighted large volumes of gas emissions that could trigger chemical reactions, explosions, and the release of toxic substances such as sulphur dioxide and nitrogen oxides. The government did not contest these circumstances. The applicants argued that these actions violated several articles of the Convention and sought just satisfaction. Another example of the protection of environmental human rights is the *Case of Hutton and Others v. the United Kingdom* (2003), which concerned noise pollution near London's Heathrow Airport. The case examined the adequacy of studies conducted by the authorities prior to the implementation of a noise quota system. The ECtHR concluded that Article 13 of the Convention on the Protection of Human Rights and Fundamental Freedoms (1997) had been violated. It was established that the right to access effective legal remedies under Article 13 had been breached, as the UK courts had failed to provide sufficient judicial protection.

In cases where environmental rights are insufficiently protected at the national level, Ukrainian citizens also have the right to apply to the ECtHR. This right is enshrined in Part 4 of Article 55 of the Constitution of Ukraine (1996), which allows individuals to submit complaints to international judicial bodies after exhausting all domestic legal remedies if they believe that their rights or freedoms have been violated. This right can only be exercised within international organisations of which Ukraine is a member, thereby confirming the ability of Ukrainian citizens to petition the ECtHR. The adoption of the Law of Ukraine No. 3477-IV (2006), which regulates the

implementation of European Court of Human Rights decisions, reflects the recognition of the Court's jurisprudence as a source of law within Ukraine. This legislative act facilitates the integration of European human rights standards into the Ukrainian legal system, establishing the binding nature of ECtHR rulings for Ukrainian courts in cases concerning Council of Europe member states. In this context, ECtHR decisions can serve as legal precedents.

As of 2024, the ECtHR has also considered several cases against Ukraine relating to environmental protection. Although the number of such rulings is limited, they carry significant weight, including *Dubetska and Others v. Ukraine* (2011) and *Hrymkovska v. Ukraine* (2011). In the case of *Dubetska and Others v. Ukraine* (2011), applicants from the village of Vilshyna (Lviv Region) repeatedly petitioned state authorities regarding harm to their health and homes caused by environmental pollution from the Chervonograd enrichment plant. Despite recognition of the plant's serious negative impact on the applicants' lives, the authorities failed to implement any decision to relocate them from the contaminated area. The Court considered that, while states enjoy a certain degree of discretion in fulfilling their environmental obligations, granting applicants a general right to free new housing at the state's expense would be excessive. Nevertheless, the applicants' complaints under Article 8 could have been addressed through appropriate remediation of the environmental issues. It was found that, during the period under review, both the mine and the plant operated in violation of national environmental legislation, and the government failed to facilitate the relocation of the applicants or implement policies that would have protected them from environmental risks associated with living near these facilities. This constitutes a breach of Article 8 of the Convention on the Protection of Human Rights and Fundamental Freedoms (1997).

In the case of *Hrymkovska v. Ukraine* (2011), the ECtHR emphasised that, prior to the construction of a highway, the authorities did not carry out the necessary assessments to evaluate compliance with environmental standards or to involve stakeholders in the process. Subsequently, the authorities failed to adequately address the issues arising from the highway's negative impact on the residents living along its route. The Court concluded that Ukraine did not meet the minimum guarantees required to ensure a fair balance between the applicant's interests and those of society. This highlights gaps in Ukrainian legislation regarding the protection of human rights to a safe environment. Accordingly, national courts must take ECtHR practice into account when addressing environmental human rights issues at the domestic level.

In this context, C. Heri (2022) and H. Keller and C. Heri (2022) rightly note that, under Article 8 of the Convention on the Protection of Human Rights and Fundamental Freedoms (1997), the Court can identify violations of citizens' rights in the sphere of environmental legal relations. The Court must assess whether the State was aware of the issue, whether there was any inaction, and whether significant harm was caused. Court practice demonstrates that the dynamic interpretation of the Convention allows the ECtHR to continually adapt approaches to the protection of environmental rights. The Court does not interfere with national policy but merely identifies specific violations; therefore, Ukraine should take ECtHR findings into account to develop mechanisms for ensuring, protecting, and restoring human rights in the context of environmental security. An analysis of the Court's decisions in cases involving multiple countries shows that, in all such instances, the ECtHR found violations of Article 8 of the Convention on the Protection of Human Rights and Fundamental Freedoms (1997), accepting applications due to potential infringements of

the right to respect for private and family life and home. The relatively small number of cases and judgments against Ukraine indicates that, at the national level, the State generally fulfils its responsibilities in protecting environmental rights. However, an analysis of the decisions highlights issues that can be divided into two categories: 1) inadequate protection of environmental rights at the pre-trial stage, manifested in the non-implementation of certain rulings – as in *Dubetska and others v. Ukraine* (2011) and *Hrymkovska v. Ukraine* (2011); 2) disregard for national court decisions by government authorities and abuse of power – as in *Dzemiuk v. Ukraine* (2014), where a court ruling declaring a local council decision unlawful was not enforced. Thus, the Court's decisions in cases against Ukraine establish precedents and highlight gaps in the protection of environmental rights, which the State should consider when developing and implementing national policy in this area.

Environmental issues, often linked to transboundary pollution and other ecological infringements, are primarily analysed within the context of international arbitration and judicial bodies. As E. Voeten (2020) notes, there is currently no single international mechanism for adjudicating environmental cases. Only isolated elements of such a system exist, such as the International Tribunal for the Law of the Sea. In cases unrelated to maritime law, environmental matters are addressed by general judicial and arbitration bodies, such as the International Court of Justice and the Permanent Court of Arbitration, in accordance with established procedures.

In the context of environmental disputes, the International Tribunal for the Law of the Sea has authority, under the United Nations Convention on the Law of the Sea (1999), to adjudicate issues of marine pollution. Pollution resulting from the discharge of hazardous substances into the sea adversely affects marine resources and can pose

risks to human health. Under Article 287 of this Convention, dispute resolution mechanisms include the International Tribunal for the Law of the Sea, the International Court of Justice, arbitration bodies, and special arbitral tribunals.

On 16 March 2022, the International Court of Justice issued a ruling requiring the Russian Federation to cease its aggressive actions (Kuzmenko, 2024). This ruling was based on the severe consequences of military actions, which resulted in significant human casualties, the destruction of infrastructure, and environmental damage approaching a humanitarian catastrophe. However, the Russian Federation did not comply with this decision, and the absence of effective enforcement mechanisms complicated its implementation. Thus, although the International Court of Justice issued the ruling to protect environmental rights in Ukraine, its non-compliance highlighted the insufficiency of coercive mechanisms.

To enhance the effectiveness of judicial protection for environmental rights in Ukraine, the establishment of a specialised environmental court should be considered. Research by S. Zarei (2023) suggests that the concept of an international environmental tribunal addressing domestic issues is unlikely, as such institutions typically operate on an arbitration basis, with states as the principal participants. Therefore, it would be more appropriate to establish a national judicial body specialised in environmental matters.

Among European countries, Sweden and Austria demonstrate positive trends in environmental justice. Sweden became the first European state to introduce the Swedish Environmental Code (1999), which includes a system of first- and second-instance environmental courts, comprising five environmental courts functioning within civil districts and one environmental court attached to the appellate court. In Austria, environmental courts are organised on a specialised basis and include an Independent Environmental

Senate composed of ten judges, although its jurisdiction is limited to cases related to environmental impact assessments (Angstadt & Schink, 2023).

The practice of New Zealand's Environmental Court is also noteworthy: plaintiffs can bring various claims (Warnock, 2022), including requests for guidance on the allocation of powers between regional and territorial authorities, as well as for determining potential breaches of the state's obligations to prevent or mitigate environmental harm. At the same time, the absence of necessary environmental information from authorities does not provide grounds for approaching the Environmental Court.

In Australia, most cases relating to planning and environmental protection are resolved through agreement between the parties before hearings commence, reflecting a preference for encouraging alternative dispute resolution free of charge (Planning and Environment..., 2024). In this process, registrars act as mediators, helping to avoid court costs. Among the positive aspects of environmental rights protection is the success of the Land and Environment Court of New South Wales, the world's first environmental court, established in 1980. It maintains an electronic database on environmental offences, providing judges with access to analytics and statistics; implements a "Multi-Door Courthouse" system, offering plaintiffs a broad range of services to resolve disputes at different stages; and emphasises restorative justice, whereby victims and offenders collaborate to restore ecological balance.

It can therefore be concluded that international environmental law is a crucial instrument for addressing global ecological challenges, as it establishes legal frameworks for the protection of the environment at an international level. The practice of international courts, such as the International Court of Justice and the European Court of Human Rights, indicates a gradual shift in the approach to state sovereignty, with environmental

standards increasingly taking precedence over traditional notions of sovereignty. Court decisions emphasise the importance of safeguarding the right to a clean and safe environment, as enshrined in international legal norms and judicial precedents.

The US experience for Ukraine. Unlike Ukraine, the United States has had sufficient time to address issues of state governance and to implement political decisions, particularly in the environmental sphere. Over several decades, the USA established a hierarchical structure of government agencies with clearly defined functions, allowing for the distribution of jurisdiction between state and federal levels, as well as the creation of institutions for public oversight. According to J.T. Mueller and S. Gasteyer (2021), this system enabled the USA to adapt to the dynamic development of social relations. Analysing the principles of federal governance and legal regulation in the USA regarding environmental protection is particularly valuable, as it can provide both theoretical and practical guidance for Ukrainian legislators in regulating ecological relations.

The executive branch of the United States of America in the field of environmental policy is centred on the Environmental Protection Agency (U.S. Environmental Protection Agency, 2025), which plays a key role in the implementation of administrative oversight and monitoring compliance with environmental legislation. Additionally, the Department of the Interior and the Department of Agriculture also carry out specific functions relating to environmental safety. The Environmental Protection Agency is responsible for developing and enforcing regulations connected to environmental protection. However, the presidential administration and other federal bodies can influence the formulation of environmental policy, for example, through the development of standards for alternative fuels (Alternative fuels, 2010).

Federal environmental regulation in the United States is based on a comprehensive

system of legal instruments that govern interactions among federal agencies, state governments, local authorities, and the public. This system operates according to the principle of checks and balances, established by the country's founders to prevent the concentration of power in any single branch. This principle ensures equilibrium between different branches of government, preventing the dominance of one over the others. However, as J. Castner (2020) and R.J. Lazarus (2023) note, it can also create conditions for mutual interference between branches, which at times complicates the legislative process for environmental laws.

The interaction between federal and state authorities in the United States of America leads to ongoing debates regarding the expansion and limitation of their powers in environmental regulation. Specifically, state authorities aim to maintain greater independence in environmental matters, whereas federal institutions seek to centralise regulation to ensure uniform environmental safety standards across the country. The long-standing environmental policy of the United States has established a robust legal framework for environmental protection, which has had a positive impact on the nation's ecological situation. The development and implementation of various environmental programmes, supported by sustained political and legislative initiatives, have facilitated a balance between ensuring a safe living environment and accommodating economic interests (Young *et al.*, 2022).

Despite the positive outcomes of implementing environmental programmes, a number of challenges remain, particularly concerning the compromise between environmental protection and economic development. One such challenge is the risk of weakening environmental standards in favour of economic considerations, which could adversely affect sustainable development. Furthermore, centralised regulation does not always account for the specific ecological

conditions of individual regions, potentially reducing the effectiveness of environmental measures in different parts of the country. The experience of the US courts in addressing environmental issues encompasses a wide range of cases, reflecting the active role of the judicial system in safeguarding the environment. This process involves not only the application of legislation but also the development of case law, which plays a crucial role in regulating environmental relations. Judicial practice in the United States has had a significant impact on the evolution of environmental law. For example, the decision in *Massachusetts v. Environmental Protection Agency* (2006) established that the Environmental Protection Agency (EPA) is obliged to regulate greenhouse gas emissions under the Clean Air Act. This ruling highlighted the importance of considering environmental consequences in decisionmaking.

Another significant case is *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.* (1999), in which the U.S. Supreme Court determined that organisations may bring lawsuits for environmental violations even if they cannot demonstrate specific financial losses. This decision expanded the ability of environmental organisations to protect the environment. US judicial practice also includes cases in which Indigenous peoples use the courts to safeguard their rights to land and resources. In *United States v. Sioux Nation of Indians* (1980), the court affirmed the tribe's right to compensation for lost land due to government actions, recognising the environmental rights of Indigenous peoples. The issue of improving the international legal framework for environmental protection during armed conflicts in Ukraine is particularly important in light of the experience of the United States of America. In situations of armed conflict, such as the war in Ukraine, the environment often suffers significant damage, which can lead to long-term negative consequences for public health and ecosystems.

According to information provided by the State Ecological Inspection of Ukraine, as of April 2024, the total damage to the environment caused by Russian aggression amounts to nearly 2.5 trillion UAH: damage to Ukraine's atmosphere is estimated at 145 billion UAH, damage to the water sector at 84 billion UAH, and damage to the land fund at 17 billion UAH (Stephanyshyn, 2024).

The increasing environmental harm resulting from armed conflicts highlights the need to develop a specialised document containing rules of conduct for environmental protection during warfare. The content of such a convention could address several key issues, including: defining the scope of its provisions, specifically regarding the protection of the environment during armed conflict; safeguarding the environment in both international and non-international armed conflicts; identifying protected zones of significant ecological and cultural value; providing recommendations for states on adopting appropriate legislative and other measures to ensure corporate and commercial prudence in areas affected by conflict; prohibiting environmental harm as a form of reprisal; protecting the environment under conditions of occupation; and addressing the restoration and safeguarding of environmental resources damaged during conflict. Thus, there is an urgent need to establish relevant norms.

According to research by S.A. Hemmerling *et al.* (2022) and M. Kourouni (2024), the effective implementation of international norms and standards for environmental protection in conditions of armed conflict requires a comprehensive approach encompassing both legal and practical aspects. As noted by G.L. Kyriakopoulos (2021) and K.L. Law *et al.* (2020), the establishment and maintenance of mechanisms for monitoring and assessing the environmental consequences of conflicts are crucial, as they enable prompt responses to ecological threats and facilitate effective restoration. However, this conclusion should

be considered with some caution, since during armed conflicts, national governments often face significant resource constraints and competing priorities that may take precedence over environmental protection.

In the context of war and post-conflict recovery, it is important to recognise that both financial and human resources may be directed towards urgent needs, such as infrastructure restoration and security provision. These circumstances can reduce the priority given to the implementation of international environmental standards. Moreover, even where international norms are integrated into national legislation, their enforcement may encounter substantial challenges, including insufficient infrastructure and a shortage of qualified specialists. Consequently, it is essential to adapt international standards to the socio-economic realities and ecological conditions of each context to ensure their effective implementation.

To enhance environmental security in Ukraine amid armed conflict, national legislation should be amended to align with international norms, particularly regarding liability for environmental damage during conflicts. The establishment of environmental monitoring systems, drawing inspiration from the experience of the United States of America, is also critical. Furthermore, the involvement of international partners in implementing programmes for the restoration of ecosystems damaged by conflicts will contribute to the long-term protection of the environment. Examining international experience can provide a foundation for establishing effective mechanisms for environmental protection during armed conflicts in Ukraine, which is critically important for sustainable development and the safety of the population.

The United States of America has extensive experience in public administration, particularly in environmental policy, which may serve as a valuable resource for Ukraine. Over decades, the USA has developed a hierarchical structure of

government agencies, enabling an efficient distribution of jurisdiction between federal and local levels, while also ensuring public participation in monitoring compliance with environmental regulations. This system adapts to societal changes, which is crucial for the effective regulation of environmental relations in Ukraine, especially under conditions of armed conflict. Proper integration of international norms and standards into national legislation can enhance environmental security in Ukraine. This includes establishing environmental monitoring systems, which could be informed by the successful US experience, as well as involving international partners in the restoration of ecosystems damaged by conflicts. Studying and adapting the US experience in environmental governance could form the basis for creating effective environmental protection mechanisms in Ukraine, which is vital for sustainable development and public safety amid contemporary challenges.

Conclusions

This article examines international legal standards and the practices of international judicial bodies in environmental protection, with particular attention to their role in safeguarding environmental rights. The study addressed several aspects, including the analysis of key international norms, enforcement mechanisms, and specific cases considered by international courts. It was found that international judicial bodies, such as the European Court of Human Rights and the International Court of Justice, play a crucial role in shaping legal standards and safeguarding environmental rights. The practice of these courts demonstrates a gradual shift in approaches to state sovereignty, whereby environmental standards increasingly take precedence over traditional principles of sovereignty. Court decisions underscore the importance of protecting the right to a clean and safe environment, as enshrined in international legal norms and precedents.

It was also established that national governments often decide independently whether to fulfil their international obligations, particularly when these obligations conflict with the country's sovereign interests. At the same time, the role of national systems in ensuring compliance with international obligations was emphasised, as the interaction between international judicial bodies and domestic legal frameworks can significantly influence the effectiveness of environmental rights implementation. The experience of the United States of America in environmental regulation highlights the importance of establishing an efficient hierarchical system of government agencies that balances federal and local authority, while also implementing mechanisms for public oversight. In particular, the activities of the Environmental Protection Agency highlight the role of specialised institutions in implementing environmental protection policies. The experience of the USA can serve as a valuable reference for Ukraine in the context of improving national legislation during armed conflict. Drawing on international experience, integrating global standards, and establishing effective monitoring systems are critically important for enhancing environmental security and promoting sustainable development in Ukraine.

The findings demonstrate the significance of effectively applying international standards to ensure environmental protection. They underscore the necessity of integrating international norms into national legal frameworks, which can improve compliance with environmental obligations and strengthen environmental protection at the global level. Accordingly, the study emphasises the importance of law enforcement and judicial practice in the context of environmental protection, as well as their interaction with national legal systems. Promising avenues for further research may include examining the role of non-governmental organisations in facilitating

the implementation of international environmental standards, as well as analysing the impact of emerging challenges, such as climate change, on the effectiveness of existing international legal mechanisms. Investigating these aspects will allow for a deeper understanding of the potential and limitations of the international legal system in the field of environmental protection.

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Conflict of Interest

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Оцінка ефективності міжнародно-правових механізмів захисту навколишнього середовища: питання охорони довкілля в практиці міжнародних судів

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Анотація

Метою проведеного дослідження було вивчення міжнародно-правових стандартів і практик міжнародних судових органів у сфері охорони навколишнього середовища. Для досягнення зазначеної мети застосовано методи структурного, порівняльно-правового та герменевтичного аналізу. Встановлено, що основна частина міжнародних правових інструментів, таких як конвенції та рекомендації, покладається на добровільне дотримання, що суттєво обмежує їх ефективність у практичному застосуванні. Національні держави володіють правом самостійного визначення способів виконання своїх міжнародних зобов'язань, особливо в ситуаціях, коли такі зобов'язання можуть конфліктувати з національним суверенітетом. Однак міжнародні судові інституції, які займаються міждержавними спорами, часто демонструють недостатню ефективність у забезпеченні захисту індивідуальних екологічних прав через затяжність процесу та низьку результативність своїх рішень. Зазначено, що в умовах війни та відновлення після конфліктів фінансові та людські ресурси, як правило, переорієнтовуються на відновлення інфраструктури і надання гуманітарної допомоги, що може призводити до зниження уваги до реалізації міжнародних екологічних стандартів. Без адаптації загальних норм до специфічних умов їх імплементація може бути неефективною або навіть контрпродуктивною, що знижує їхню практичну ефективність у сфері охорони навколишнього середовища. Акцентовано, що створення екологічного суду в Україні є важливим для покращення екологічного правосуддя. Досвід Сполучених Штатів Америки у сфері екологічного регулювання продемонстрував важливість побудови ефективної ієрархічної системи державних органів, яка забезпечує баланс між федеральним і місцевим рівнями, а також впровадження механізмів громадського контролю. Встановлено, що залучення міжнародного досвіду, інтеграція міжнародних стандартів та запровадження ефективних систем моніторингу є критично важливими для покращення екологічної безпеки та сталого розвитку в Україні

Ключові слова: воєнний стан; правове регулювання; екологічні права; Європейський суд з прав людини; Міжнародний суд ООН



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Inclusive labour market: normative barriers and opportunities for persons with disabilities in Europe

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Abstract

The aim of the study was to assess regulatory barriers and opportunities for an inclusive labour market for people with disabilities in Ukraine and European countries. The study carried out a comparative analysis of normative barriers, an analysis of statistical data of the inclusive labour market, employment of persons with disabilities, and employment opportunities for persons with disabilities in Ukraine, Poland, the Federal Republic of Germany and France. In Ukraine, the laws “On the Fundamentals of Social Security of Persons with Disabilities” and “On Employment of the Population” established quotas for the employment of persons with disabilities and defined the obligations of employers, but monitoring of compliance remained formal and ineffective. In Poland, Germany, and France, the relevant laws and regulations provided

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mandatory quotas, financial incentives, workplace adaptation and strict monitoring of compliance, which ensured a high level of implementation and effective integration of persons with disabilities into the labour market. It was found that in Germany the largest number of lawsuits concerned the technical non-adaptation of workplaces; in Poland – non-compliance with quotas and lack of accompanying services; in France – architectural barriers and access to ESAT; in Ukraine – unlawful dismissal on the grounds of disability. It was established that the effectiveness of inclusion largely depended on coordination between state structures, employers and civil society institutions. The results of the study demonstrated that for Ukraine the priority should be the creation of a sustainable system of regional support, reforming of professional rehabilitation, as well as strengthening control over the observance of labour rights of persons with disabilities. The practical significance of the study lay in the fact that its results could be used by public authorities, in particular by the ministries of social policy and labour, to improve the regulatory framework for the employment of persons with disabilities

Keywords: social integration; professional rehabilitation; labour mobility; accessible employment; legal adaptation

Introduction

The integration of persons with disabilities into the sphere of labour was an important factor in the formation of a fair and inclusive society. In European countries, the issue of ensuring equal opportunities for all citizens, regardless of physical or mental health impairments, acquired particular relevance in the context of social policy, legal regulation and economic development. At the same time, on the way to full participation of persons with disabilities in the labour market, there still existed a number of normative, institutional and social barriers. On the other hand, European countries actively implemented support mechanisms aimed at expanding employment opportunities for this category of the population. The study of this issue made it possible to identify both existing obstacles and the potential for the formation of effective inclusive employment policies.

In academic discourse, the problems of access of persons with disabilities to the inclusive labour market and related social spheres were considered through the prism of infrastructural, normative, communicative and organisational barriers. In the study by Y.J. Wu *et al.* (2020),

a prototype of a mobile platform was developed and tested, which combined on-demand ordering of accessible transport, optimised route planning and a network of accompanying volunteers. The concept of the mobile platform proved to be an effective means of overcoming transport barriers for persons with disabilities. E.L. McKinney & L. Swartz (2021) focused on the barriers to integrating persons with disabilities into the working environment, in particular discrimination in employment, the absence of necessary adaptations and stereotypical perceptions of the ability to work. S. Sydoriv *et al.* (2024) outlined the challenges related to the imperfection of Ukrainian legislation, as well as insufficient stimulation of employers to employ persons with disabilities. The study by M.M. Patwary *et al.* (2023) was based on a comparative analysis of government programmes and in-depth interviews with representatives of relevant ministries and civil society organisations. It showed that the current policy did not provide for the prompt redistribution of resources during emergencies (military actions, natural disasters), and therefore persons with

disabilities were left outside the priority of assistance. The authors emphasised the need to create an interdepartmental “rapid response” mechanism – a single coordination centre that, in a crisis, would ensure both the financing of workplace adaptation, access to psychological support, and uninterrupted provision of technical rehabilitation equipment.

Thus, K.A. Clemente *et al.* (2022) conducted a review of barriers in the healthcare system that complicated access to basic services for persons with disabilities, including insufficient training of medical staff, lack of infrastructure and uneven distribution of resources. In the meta-synthesis of G. Hashemi *et al.* (2022), generalised data were presented on barriers in access to primary healthcare in low- and middle-income countries. The authors stressed that the problems often had not only a material or infrastructural character, but were also deeply rooted in social prejudices and a lack of interpersonal communication. In the study by K. Ihnatenko and S. Sadzaglishvili (2025), which analysed the difficulties of access of Ukrainian refugees with disabilities to social services in Georgia, especially in the context of language, information and bureaucratic barriers. The barriers included linguistic, informational, administrative-bureaucratic restrictions, as well as the absence of adapted procedures for access to social services. Thus, the literature highlighted the multidimensionality of the problems faced by persons with disabilities in the process of employment and social integration. Both material barriers (lack of transport, infrastructure, adaptations) and social barriers (discrimination, lack of information, legal inconsistency) were identified, which required a comprehensive, cross-sectoral approach. The consideration of the cited sources demonstrated the need for both national and international initiatives aimed at transforming the inclusive labour market towards real accessibility and equality.

In the analysed studies, insufficient attention was paid to the relationship between normative restrictions and economic consequences for persons with disabilities. There was also a lack of comparative analysis of the effectiveness of policies in the field of employment of persons with disabilities in different European countries and Ukraine. In view of this, the aim of the study was chosen as the examination of normative barriers and opportunities that influenced the inclusion of persons with disabilities in the labour market in European countries, taking into account modern support mechanisms, obligations of employers and practices of employment of persons with disabilities. The tasks of the study were the theoretical analysis of regulatory documents governing the employment of persons with disabilities, the assessment of the experience of inclusion of persons with disabilities in Ukraine and EU countries, as well as the development of practical recommendations for the elimination of barriers and strengthening of the inclusiveness of the labour market.

Materials and Methods

For the comparative analysis, the study selected Ukraine and several European countries, in particular Poland, Germany and France, which allowed the consideration of different models of the inclusive labour market in the context of normative barriers and opportunities for persons with disabilities. Ukraine was included as an example of a country with a transitional economy, where inclusion in the labour market was at the stage of formation, which made it possible to compare it with more inclusive European systems. These countries were chosen as representative examples of different models of the inclusive labour market in Europe: Poland demonstrated the approach of Central and Eastern European countries with the experience of post-socialist reforms, Germany – a socially oriented market economy with strong integration systems, and France – a

centralised approach with high quotas and an active role of state funds. Such a choice made it possible to compare the effectiveness of normative barriers and support policies in diverse economic, legal and sociocultural conditions.

The study analysed regulatory and legal documents that governed the inclusive labour market for persons with disabilities in Ukraine, Poland, Germany, and France. For Ukraine, the analysis included Law of Ukraine No. 875-XII "On the Fundamentals of Social Security of the Disabled in Ukraine" (1991), Law of Ukraine No. 5067-VI "On Employment of the Population" (2012) and Resolution of the Cabinet of Ministers of Ukraine No. 553 "On Certain Issues of Organising Employment of Persons with Disabilities" (2023). The Polish segment of the study was based on the Labour Code of the Republic of Poland (1974). Social Code Book IX of the Federal Republic of Germany "Rehabilitation and Participation of Persons with Disabilities" (2016) regulated the rights of persons with disabilities. In France, the analysis was carried out on the basis of Law of the French Republic No. 2005-102 "On Equal Rights and Opportunities, Participation and Citizenship for Persons with Disabilities" (2005), which promoted the employment of persons with disabilities. Such an approach made it possible to compare regulatory mechanisms and identify key barriers and opportunities at different stages of development of the inclusive labour market in these countries.

For data verification, official statistical resources were used, in particular, Eurostat (2024) – on the employment rate of persons with disabilities in the age category 20-64 in EU countries, data on the employment of persons with disabilities, in particular in Poland (Statistics Poland, 2023), France – reports on applications of persons with disabilities regarding employment (2018-2023), research on quota employment in Germany and the dynamics of applications (Trading Economics, 2025). The

content analysis of court rulings covered open databases of rulings, namely Judgement of the Federal Labour Court of Germany in Case No. 10 AZR 123/19 (2020), Judgment of the Supreme Court of the Republic of Poland in Case "AS v P. Spółka Akcyjna in W." (2021), Verdict of the Council of the French Republic in Case No. 421234 (2024), Resolution of the Supreme Court of Ukraine in Case No. 240/19209/21 (2024). All rulings were analysed according to key features, namely the subject of the claim, the result of the proceedings, the type of identified violation (architectural barriers, refusal of adaptation, discriminatory dismissal, absence of accompanying services), which made it possible to compare the effectiveness of legal protection in the jurisdictions under study.

Results

An inclusive labour market is considered as a system that ensures equal access to employment regardless of the state of a person's physical or mental health impairments, while regulatory barriers are defined as legal, administrative, or organisational obstacles that limit the participation of persons with disabilities in employment. The focus is on the opportunities created by the state through legislative initiatives, financial instruments, quotas, adaptation programmes, and professional rehabilitation. Social inclusion, in turn, is interpreted as a holistic process of involving persons with disabilities in active social and economic life, particularly through access to decent work, which contributes to the self-realisation, economic independence, and reduction of social isolation. In particular, the situation of persons with disabilities is gradually changing towards greater visibility, participation, and protection of the rights, especially in the field of employment. Despite achievements in legislative regulation and inclusion policies, millions of persons with disabilities continue to face discrimination, stigmatisation, and limited access to decent work. Globally, the

inclusion of persons with disabilities in the labour market remains low: according to the International Labour Organization (2025), the labour force participation of persons with disabilities is 30% lower than that of those without disabilities. Such indicators demonstrate systemic barriers – from insufficient physical accessibility and employer prejudice to a lack of adaptation mechanisms and professional support. In the EU, where approximately 42.8 million working-age persons with disabilities live, employment rates remain low for this group (European Commission, 2025). The employment gap between persons with and without disabilities in 2023 amounted to 21.4%, despite an increase in employment from 48.7% in 2014 to 50.7% in 2020 (Yanatma, 2024). Among the support measures in the EU, the “Disability Employment Package” has been declared, which provides for the development of employment services, encouragement of hiring through affirmative action, provision of reasonable workplace accommodations, and approval of vocational rehabilitation schemes.

In many countries, there are quotas for employers, professional rehabilitation programmes, state subsidies for workplace adaptation, as well as legal protection mechanisms against discrimination. For example, in Germany, under the provisions of Social Code Book IX of the Federal Republic of Germany (2016), private and public enterprises with at least 20 employees must ensure that no less than 5% of jobs are held by persons with officially recognised severe disabilities. In case of non-compliance with this rule, a compensatory levy is applied – from EUR 140 to EUR 720 per month for each unfilled position. In France, according to Law of the French Republic No. 87-517 “Promoting the Employment of Disabled Workers” (1987) and Law of the French Republic No. 2005-102 (2005), employers with more than 20 employees are obliged to have at least 6% of staff with disabilities, and for non-compliance

with the quota conditions employers pay a special levy into a state fund, which is directed towards employment support and workplace adaptation. The size of the special levy in France is determined depending on the number of employees with disabilities not appointed, and may be adjusted in accordance with the employer’s measures for workplace adaptation or employment support. In Ukraine, despite the established Law of Ukraine No. 5067-VI (2012) quotas (4% of jobs for persons with disabilities at enterprises with more than 25 employees), the actual share of employed persons with disabilities was only about 17% in 2021. The main reasons include insufficient monitoring of quota fulfilment, formalism in employer reporting, and the absence of effective financial and advisory mechanisms for workplace adaptation (Statement on Reforming..., 2023).

Thus, the identified indicators at global, European, and national levels demonstrate that these are different levels (global, regional, national systems), while support policies include legislative quotas, financial incentives, social support, professional rehabilitation, and technical workplace adaptation. In Ukraine, a number of regulatory acts and a specialised institution operate, which are analogous in the purpose to the State Fund for Rehabilitation of Persons with Disabilities in Poland, or Social Code Book IX of the Federal Republic of Germany (2016) and Law of Germany No. 1467 “On the Equality of Persons with Disabilities” (2002). First and foremost, the basic legislative document is the Law of Ukraine No. 875-XII (1991). This act established the general principles of guaranteeing the rights of persons with disabilities, in particular the requirements for setting job quotas: for employers with an average number of employees. To implement and finance measures for employment, professional rehabilitation, workplace adaptation, professional training, and advisory support, the Fund for Social Protection of Persons with Disabilities

was established under the Ministry of Social Policy in Ukraine. The Fund's functions include providing financial support to businesses and NGOs for the creation and equipment of workplaces, as well as conducting competitions for projects in social services and rehabilitation activities.

The procedures for rehabilitation and comprehensive restoration of working capacity are separately regulated by Law of Ukraine No. 2961-IV "On the Rehabilitation of Persons with Disabilities in Ukraine" (2006). It defines state social standards of rehabilitation, the procedure for developing individual programmes, and lists of free and preferential services in medical, professional, and labour rehabilitation, including measures for professional selection, retraining, and workplace adaptation for persons with disabilities. Currently, the norms on incentives and employer responsibilities are being improved. Law of Ukraine No. 4219-IX "On Amendments to Certain Legislative Acts on Ensuring the Right of Persons with Disabilities to Work" (2025), which will enter into force on 1 January 2026, introduced a mechanism of contribution (instead of fines) for non-compliance with quotas and provided for social support of employees with disabilities and funding for workplace adaptation. The new Law of Ukraine No. 4219-IX marked a shift from a punitive to a motivational model for ensuring the employment of persons with disabilities. Unlike the previous system, which envisaged fines for non-fulfilment of quotas, the mechanism of a targeted contribution is now introduced, the funds of which are directed towards the creation and modernisation of workplaces, while also ensuring social support for employees with disabilities. This decision shifts the emphasis from the formal fulfilment of requirements to encouraging employers to actively participate in forming an inclusive working environment, which is consistent with the European practice of supported employment and the principles of ESG policy. This indicates a transition from

coercion to stimulation, where business responsibility is combined with state support.

Employment legislation in Ukraine established the general principles of state policy for promoting employment, including persons with disabilities, but the wording is often devoid of practical specifics. For example, Law of Ukraine No. 5067-VI (2012) defined the mechanisms for registering the unemployed, the rights and obligations of employment centres, and job quotas for privileged categories, including persons with disabilities. At the same time, the basic concept of "quota" was fixed without a clear description of procedures for verifying actual employment, as established by Resolution of the Cabinet of Ministers of Ukraine No. 466 "On Approval of the Procedure and Conditions for Granting a Subsidy from the State Budget to the Regional Budget of Kherson Region for the Construction of an Overpass on Admiral Senyavin Avenue – Zalaegerseg Street in Kherson" (2018), which allowed bypassing the norm by means of "paper" arrangements rather than creating a workplace with an adapted environment. The flexibility of terminology ("first job", "temporary work") in various articles of the Law creates legal uncertainty, and the absence of a single definition in one law leads to duplication of norms (registration of the unemployed, rights and obligations of employment centres, and job quotas for privileged categories, including persons with disabilities) and complicates the practical application. In Law of Ukraine No. 5067-VI (2012) (Art. 9, Art. 23, Art. 24) the circle of beneficiaries was expanded, and incentive measures were introduced, including paid internships for youth and exemptions from paying the unified social contribution when employing the unemployed in priority sectors. However, there was no financial incentive specifically for the adaptation of workplaces for employees with disabilities. In particular, Resolution of the Cabinet of Ministers of Ukraine No. 893 (2023) was

aimed at strengthening social integration and increasing the employment of persons with disabilities by creating appropriate conditions for the professional self-realisation. The document provided a mechanism for reimbursing expenses to employers, sole proprietors, and self-employed persons related to the arrangement of workplaces for persons with disabilities. Compensation could be granted for actually confirmed expenses aimed at creating or adapting a workplace in accordance with the needs of a specific person, taking into account the individual rehabilitation programmes and the recommendations of medical and social expert commissions. The resolution defined categories of expenses subject to reimbursement, including the purchase of special equipment and devices, repair works, technical re-equipment of the workspace, installation of ramps, special furniture, or software. An important element was the definition of a transparent mechanism for selecting and verifying submitted applications and documents, ensuring control over the targeted use of public funds. The compensation procedure was structured to encourage employers to create jobs for persons with disabilities while reducing the financial risks.

Resolution of the Cabinet of Ministers of Ukraine No. 553 (2023), defines the formats of employer reporting and the deadlines for submitting information to employment centres. In theory, this simplifies communication: instead of several forms, a single list of information on vacancies and quotas is provided. At the same time, this procedure does not contain any provisions on compensation for workplace adaptation, does not establish clear deadlines for employment centres to process requests, and does not provide for individual liability of officials for delays or refusals in employment support. The payment of fines or contributions for non-fulfilment of quotas is mentioned rather abstractly and without specifics regarding amounts or deadlines, so the

effectiveness of the preventive mechanism is questionable. The cited examples of norms and practical gaps indicate the need for further detailing and synchronisation of legislation. To avoid the formal fulfilment of quotas, the legislator could introduce clear methodological guidelines and control tools (electronic monitoring of created jobs, mandatory description of workplace adaptation). In addition, Resolution of the Cabinet of Ministers of Ukraine No. 70 (2007) established the procedure for monitoring compliance with job quotas for the employment of persons with disabilities. The document defined mechanisms for inspecting enterprises, institutions, and organisations, including those belonging to associations of persons with disabilities, as well as individuals using hired labour. Monitoring was carried out by analysing compliance with the established quota and the possibility of counting it on the basis of the creation of workplaces that met the legal requirements. This approach aimed to ensure formal compliance with quotas but focused on inspections and sanctions rather than supporting employers in ensuring inclusiveness, which limited the system's effectiveness and its orientation towards the real integration of persons with disabilities into work collectives.

Further digitalisation of data exchange through the "Diia" portal, stricter sanctions with transparent algorithms for calculating fines, and social support at all stages of employment would be effective steps to eliminate regulatory barriers and genuinely expand opportunities for persons with disabilities in the Ukrainian labour market. Thus, in Ukraine there is both a legislative framework – with the definition of quotas, social standards, and rehabilitation programmes – and a specialised state Fund that finances measures for employment, training, and adaptation, which are direct analogues of European models of employment support for persons with disabilities. The Polish segment of the study was

based on Law of the Republic of Poland No. POL-1997-L-48525 (1997), which provides both a system of employer support and mechanisms for rehabilitation and retraining of persons with disabilities. In Poland, the State Fund for Rehabilitation of Persons with Disabilities also operates, which finances measures for employment, training, workplace adaptation, and advisory support.

The analysis of the provisions of regulatory documents regarding the employment of persons with disabilities in Ukraine, Poland, Germany, and France showed significant differences in key criteria. In Ukraine, the implementation of norms is often formal: some employers ignore quotas, and reports are submitted “on paper”, which reduces effectiveness. The Polish law on vocational and social rehabilitation ensures a mandatory quota of 6% for companies with more than 25 employees and financial motivation through contributions to the State Fund for Rehabilitation of Persons with Disabilities in case of non-fulfilment of quotas; the system is characterised by high effectiveness due to the combination of subsidies, workplace adaptation, and career guidance. Germany regulates the employment of persons with disabilities through Social Code Book IX of the Federal Republic of Germany (2016) and Law of Germany No. 1467 (2002), where the 5% quota for companies with ≥ 20 employees is combined with personalised services, compensations, and anti-discrimination mechanisms; monitoring is carried out by federal services and Integrationsamt, and effectiveness is enhanced through judicial practice and transparent monitoring. In France, the Law of the French Republic No. 2005-102 (2005) provides for a 6% quota for companies with ≥ 20 employees, financing of workplace adaptations, and monitoring through Agefiph; a high level of compliance is achieved thanks to clear financial sanctions and a comprehensive support system. Thus, the experience of Poland, Germany, and France demonstrates the effectiveness of

combining mandatory quotas, financial motivation, personalised services, and systemic monitoring, whereas in Ukraine it is necessary to strengthen monitoring, unify programmes, and increase real employer responsibility for the employment of persons with disabilities.

In Germany, the task of supporting the employment of persons with disabilities is entrusted to the Integration Offices, which as of 2025 number 17 across all federal states and are financed from employers’ compensatory contributions in case of non-fulfilment of quota obligations. These institutions not only cover the costs of technical workplace adaptation and the purchase of special equipment but also organise long-term support for employees with disabilities and training for colleagues. Nevertheless, as of 2022, only about 39% of German companies fully fulfilled quotas, the rest paid compensatory contributions ranging from EUR 140 to EUR 360 per month for unfilled positions, with a gradual increase up to EUR 720 (Federal Employment Agency, 2024).

In Poland, the State Fund for Rehabilitation of Persons with Disabilities has at its disposal more than PLN 1 billion, which under the “Independence – Activity – Mobility” programme is allocated for housing adaptation, transport, rental of rehabilitation equipment, and the creation of professional rehabilitation centres (Ministry of Family, Labour, and Social Policy of the Republic of Poland, 2021). In 2024, the State Fund for Rehabilitation of Persons with Disabilities financed 17,200 measures to eliminate architectural barriers (PLN 62.2 million), 63,000 vouchers for rehabilitation camps (PLN 65.6 million), and additionally provided more than 180,000 persons with technical support equipment through a long-term rental system. In the Federal Republic of Germany, according to Eurostat (2024), the share of employed persons with disabilities as of 2024, the employment rate of persons aged 20-64 in Germany was 76%. This corresponds to the

EU average of 75.8%. Only 50.6% of persons with disabilities aged 20-64 were employed, which is 24 percentage points lower than in the general population.

The dynamics of applications to employment centres indicate a gradual increase in the registration of persons with disabilities: if in 2018 there were about 27,000 such applications, then in 2023 – already more than 34,000. Among employers, only 39% fully fulfilled the 5% quota of jobs for persons with disabilities, others paid the *Ausgleichsabgabe* from EUR 140 to EUR 360 for each unfilled position (Deutscher Gewerkschaftsbund, 2024). In the field of judicial protection, the key is the ruling of the Judgement of the Federal Labour Court of Germany in Case No. 10 AZR 123/19 (2020), where an employee with multiple sclerosis achieved recognition of discrimination and compensation for the employer's refusal to adapt the workplace according to the needs. In Poland, the employment rate of working-age persons with disabilities is estimated at 42.1% according to the Główny Urząd Statystyczny for 2023. At the same time, about 45% of employers comply with the 6% quota, others transfer contributions to the State Fund for Rehabilitation of Persons with Disabilities, the total amount of which in 2023 exceeded PLN 1.2 billion. In Poland, the sheltered sector is represented by about 80,000 jobs in Zakłady Aktywności Zawodowej, the rest work in the open sector. Applications of persons with disabilities to Powiatowe Urzędy Pracy increased from 15,000 in 2018 to 21,000 in 2023 (Statistics Poland, 2023). The Supreme Court of Poland in case I PK 21/21 (2021) confirmed that the refusal to adapt a workplace for a candidate with a hearing impairment constitutes direct discrimination (Judgment of the Supreme Court of the Republic of Poland..., 2021).

In France, the key player was Agefiph – the association managing the fund for the integration of employees with disabilities, which in 2022

operated with a budget of EUR 569.6 million, of which EUR 507.6 million was directed to support people and businesses through grants, subsidies for workplace adaptation, professional training, and the payment of services of the *Cap emploi* network (Adoption of the 2022 budget..., 2022). In particular, EUR 65.5 million was allocated for the work of *Cap emploi* on employment issues, and EUR 43.6 million – for measures to retain employees with disabilities in workplaces.

In Ukraine, the financing of professional rehabilitation and technical workplace adaptation is carried out by the Fund for Social Protection of Persons with Disabilities under the Ministry of Social Policy. According to the Ministry of Finance of Ukraine (2023), in 2024 UAH 16.8 billion was allocated for the support of persons with disabilities (access to medical services, social payments, rehabilitation). In France, according to Eurostat (A9-0014/2021), the employment rate of persons with disabilities was 50.6% in 2020, while in 2022 – about 49.8% (Barets *et al.*, 2025). The private sector fulfils the 6% quota only at 60%, businesses compensate the rest with contributions to Agefiph totalling more than EUR 500 million annually. The sheltered workshops system operates in a rather segregated way, employing more than 350,000 persons with disabilities; in the open sector – more than 2 million. Applications to *Pôle emploi* on employment issues of persons with disabilities increased from 18,500 in 2018 to 24,000 in 2023 (Trading Economics, 2025). In 2023, the Verdict of the Council of the French Republic in Case No. 421234 (2024) issued decision No. 421234, obliging the national supermarket chain to remove architectural barriers and pay compensation to an employee with musculoskeletal disorders. In Ukraine, according to the State Statistics Service, the employment rate of persons with disabilities aged 18-59 in 2023 was about 17% compared to 61% in the general population. In the sheltered sector (professional

rehabilitation centres, enterprises with special status) about 25,000 persons are officially employed, in the open sector – approximately 140,000. Applications of persons with disabilities to employment centres increased from 8,000 in 2018 to 12,500 in 2023 (Razom, 2024). The only precedent-setting ruling of the Resolution

of the Supreme Court of Ukraine in Case No. 240/19209/21 (2024), in which the court ordered the employer to reinstate a person with Group II disability in employment and pay compensation for unlawful dismissal. For better understanding, the analysis of the content of these rulings, the issues, and results is presented in Table 1.

Table 1. Major court rulings on discrimination against persons with disabilities in employment

Country	Court	Case	Issue	Outcome
Germany	Federal Labour Court	No. 10 AZR 123/19 (2020)	Refusal to adapt a workplace (multiple sclerosis)	Discrimination recognised and compensation awarded
Poland	Supreme Court	"AS v P. Spółka Akcyjna in W." (2021)	Refusal to adapt a workplace (hearing impairment)	Direct discrimination recognised, appeal dismissed
France	Council of the French Republic	No. 421234 (2024)	Architectural barriers in supermarkets	Barriers removed and compensation awarded
Ukraine	Supreme Court of Ukraine	No. 240/19209/21 (2024)	Unlawful dismissal on grounds of disability	Reinstatement and compensation awarded

Source: compiled by the authors

The court rulings showed that the main subjects of labour disputes regarding discrimination against persons with disabilities remained refusal to adapt a workplace, infrastructural inaccessibility, and unlawful dismissal on health grounds. In Germany, the focus was on the technical adaptation of workplaces and accompanying services – the practice of the Federal Labour Court of Germany confirmed that the direct non-application of individual measures constituted a gross violation of the worker's rights. In Poland and France, courts focused on architectural accessibility and the mandatory nature of quotas, demonstrating that even the formal existence of legislative norms without real enforcement led to numerous lawsuits. The Ukrainian case illustrated that the absence of systemic monitoring of dismissals and insufficient legal support for workers with disabilities created conditions for violations that had to be resolved only through the courts.

The analysis of these rulings made it possible to:

1. Identify priority areas for improvement: workplace adaptation, architectural accessibility, and protection against unlawful dismissal.

2. Emphasise the criticality of preventive mechanisms: the need for more active monitoring and advisory support by state bodies, as practised in Germany and France.

3. Show the role of judicial protection: the effectiveness of legal appeals depended on the availability of information on procedures and the possibility of free legal aid.

4. Justify the need for interstate exchange of experience: the examples of Germany, Poland, and France could serve as models for Ukraine in developing its own institutional and regulatory tools.

Thus, the case study of court rulings provided an understanding of the implementation of the employment of persons with disabilities and guided further recommendations on strengthening preventive measures and human rights mechanisms. On the basis of the analysis of regulatory documents and the practical experience of EU

countries – in particular Poland, Germany, and France – a number of practical recommendations could be formulated, aimed at eliminating regulatory and structural barriers and strengthening the inclusiveness of the labour market for people with disabilities in Ukraine. In particular, attention should be focused on improving legislation, strengthening enforcement mechanisms, motivating employers, developing professional rehabilitation, modernising the monitoring system, and introducing new models of support based on European practices. The current system of job quotas in Ukraine should be reviewed. In France and Poland, by contrast, quotas were accompanied by financial incentives or sanctions. For example, in France, companies that did not comply with the 6% quota were required to make contributions to the special AGEFIPH fund, which used these resources to finance training, retraining, and workplace adaptation. Similarly, in Poland, where for non-fulfilment of the quota, employers made compulsory contributions to the State Fund for the Rehabilitation of Persons with Disabilities. The introduction of such a financially responsible model in Ukraine, with transparent administration and the direct allocation of funds to support programmes, could become an incentive for greater business participation in inclusion. An effective system of support for employers creating jobs for persons with disabilities also needed to be introduced. In Germany, mechanisms existed for partial reimbursement of costs for workplace adaptation, adaptation of the work environment, provision of special technologies, and staff training on working with people with disabilities. For example, the Integrationsamt services in Germany provided funding not only for technical adaptation but also for long-term support for the employee with a disability and the colleagues, which significantly increased the level of successful integration.

Law of Ukraine No. 4219-IX (2025) was adopted in order to strengthen guarantees for the

realisation of the constitutional right to work for persons with disabilities and to adapt national legislation to international standards. It introduced amendments to the Labour Code of Ukraine, Law of Ukraine No. 875-XII (1991), as well as to a number of subordinate acts. The main innovations included the specification of employers' obligations to create a barrier-free work environment, including the arrangement of workplaces taking into account the individual needs of employees with disabilities, the introduction of mechanisms for reimbursing the costs of equipment adaptation and technical re-equipment, as well as the strengthening of liability for violations of non-discrimination standards in employment. The law also provided for the expansion of state support instruments, including tax benefits and financial incentives, for enterprises actively providing jobs for persons with disabilities. Issues of vocational training and retraining, and skills development of persons with disabilities taking into account the modern needs of the labour market, were also regulated. An important aspect was the establishment of clear procedures for employers' interaction with the Fund for Social Protection of Persons with Disabilities, which guaranteed the transparency and effectiveness of financing mechanisms. The alignment of this law with the provisions of the UN Convention on the Rights of Persons with Disabilities and the European Social Charter ensured the integration of the Ukrainian legal system into the European legal space. The adopted changes were aimed at creating a more inclusive labour market, providing equal opportunities for professional self-realisation, and increasing the competitiveness of persons with disabilities.

In EU countries, this area was one of the fundamental elements of inclusive policy. In Poland and France, specialised centres for professional rehabilitation actively operated, offering services in orientation, training in new professions, internships, and support in starting one's own

business. For example, in France such centres operated in cooperation with local self-government bodies, employers, and public organisations, which allowed the creation of individual development trajectories for persons with disabilities. It was necessary to reform vocational education taking into account the needs of people with disabilities, as well as to create an effective network of retraining centres with the involvement of state and non-state partners. Special attention should also be given to modernising the system for monitoring compliance with the rights of persons with disabilities in the labour market. In Germany, a multi-level system of institutions operated, which not only recorded violations but also provided advisory assistance, mediation in conflict resolution, and support in cases of discrimination. Law of Germany No. 1467 (2002) created the legal prerequisites for access to justice, and special services protected the interests of employees at all levels. Ukraine should create similar bodies at the regional level, which would not only monitor compliance with quotas but also provide support to people with disabilities in defending the right to decent working conditions.

In addition, it was necessary to work on overcoming social prejudices and raising awareness among employers and employees. It was important to implement educational campaigns, training, and information programmes that fostered a tolerant attitude towards employees with disabilities and demonstrated examples of successful inclusion. For example, in France, the “Disability Employment Week” was held annually, during which forums, meetings with employers, and job fairs were organised, where people with disabilities could present the skills and receive concrete offers. Equally important was the application of innovative approaches to employment, in particular the development of remote work, freelancing, and flexible work formats, which were especially relevant for people with limited mobility. In

European countries, the state actively supported such models, for example through subsidies for technical provision (laptops, software for the blind, special keyboards, etc.), as well as through tax incentives for companies that provided remote jobs.

Thus, in order to strengthen the inclusiveness of the labour market in Ukraine, it was advisable to combine regulatory improvements with practical measures based on EU experience. This included the introduction of an effective quota system with financial consequences, the creation of a comprehensive infrastructure of professional support, the modernisation of the monitoring system, employer support, the development of inclusive education, and the transformation of societal attitudes. Such a comprehensive approach would not only remove barriers but also ensure the equal participation of people with disabilities in the economic life of the country.

Discussion

The study revealed that although formal quota mechanisms existed in most European countries, the implementation was often blocked due to fragmented powers between different agencies and the absence of common standards for assessing effectiveness. For the first time, it was shown that, alongside legislative obstacles, social factors played a decisive role: employers’ biased attitudes and insufficient access to digital technologies, which needed to be included in comprehensive support policies. This finding made it possible to direct efforts not only towards changing the regulatory framework, but also towards cross-sectoral coordination and overcoming informal barriers, which together would contribute to real growth in the employment of persons with disabilities. The results obtained confirmed the previous conclusions of S. Bonaccio *et al.* (2020), who described the effectiveness of the employment of persons with disabilities as a key factor in reducing the employment rate. In the same context, the results

of the study by R. Nagtegaal *et al.* (2023) were also interpreted, which emphasised the lack of motivation on the part of employers, caused by insufficient support and awareness of institutional tools. The analysis of regulatory documents governing the inclusive labour market for people with disabilities in Ukraine, Poland, Germany, and France showed that legal barriers often took on a latent character: a formal prohibition of discrimination in practice did not guarantee equal access to employment. This was also confirmed by the findings of A. Leahy and D. Ferri (2024), who noted that the participation of people with disabilities in the cultural life of Europe remained fragmented precisely because of the ineffectiveness of the implementation of regulatory acts. The identification of the digital divide, which became a restraining factor in the context of hybrid and remote employment formats, was also extremely important. The study of S. Johansson *et al.* (2021) confirmed that in Sweden, persons with disabilities significantly lagged behind in terms of digital technology use, which limited the competitiveness. The study also revealed that ensuring timely and comprehensive medical support contributed to better recovery of working capacity and allowed people with disabilities to integrate more actively into work processes, which was consistent with the findings of M.C. Harris *et al.* (2020) on the close relationship between healthcare accessibility and the employment level of persons with disabilities. The results of the present study confirmed that only a small proportion of graduates with intellectual disabilities actually found work in the competitive labour market, which resonated with the findings of T. Buchner *et al.* (2021), who pointed to the limited opportunities for students with intellectual disabilities to transition to full employment. The analysis of structural barriers in higher education, described by A. Moríña and I. Orozco (2021), coincided with the lack of proper practical training programmes and mentoring

support for students with disabilities identified in the study, and also confirmed that disability-related additional costs significantly increased the economic vulnerability of households, as noted by N. Morris and A. Zaidi (2020).

The study by N. Kabeer (2021) highlighted the gender dimension of inclusion, focusing on the double discrimination faced by women with disabilities. The author argued that disability combined with gender increased social vulnerability, especially in the context of access to education, healthcare, employment, and political participation. It was noted that in most European countries, women with disabilities faced double barriers, systemic and cultural, which affected the level of the participation in social processes, including the labour market and social services. This approach made it possible to expand the interpretation of inclusion by taking into account intersecting identities and a deeper understanding of social inequality. In the study of spatial barriers to inclusion, P. Bianchi *et al.* (2020) demonstrated that the physical accessibility of tourist and recreational facilities played an important role in shaping the social inclusion of people with disabilities. The authors stressed that infrastructural limitations, the absence of ramps, adapted transport, tactile navigation tools – in fact, excluded persons with disabilities from full participation in public and cultural life. These limitations not only reduced the quality of life but also created a deeper sense of social isolation. The researchers interpreted the creation of a barrier-free environment as an indicator of the level of democracy of society and institutional sensitivity to the needs of vulnerable groups. Similar considerations were observed in the study by M. Mastrogiuseppe *et al.* (2021), which analysed barriers to access to cultural heritage sites for persons with intellectual and sensory impairments. The work emphasised that museums, theatres, and architectural monuments often remained inaccessible due to

the absence of accompanying adaptive means – multimodal interfaces, audio description, simplified texts, and interpretative support. The authors stressed that such inaccessibility made it impossible for people with disabilities to participate in society's cultural dialogue, limiting both self-realisation and the development of civic identity.

In the study, the very introduction of targeted fiscal incentives, tax benefits for employers, state subsidies for workplace adaptation and other grant programmes did indeed contribute to greater business involvement in the employment of persons with disabilities, which was fully consistent with the conclusions of E. Ernst *et al.* (2024), who emphasised the key role of precisely these instruments. Similar to the approach of N. Rebernik *et al.* (2020), the study applied an evaluation system similar to DIETool to compare the level of inclusion in urban policies in several European countries and confirmed that clearly defined indicators and regular monitoring made it possible to significantly improve the quality and transparency of the implementation of employment programmes for persons with disabilities. The study confirmed that the key barriers lay in fragmented regulatory powers, the absence of unified standards for workplace adaptation, and employers' prejudices, while the opportunities included the creation of interagency coordination platforms, the introduction of targeted subsidies for workplace adaptation, and the development of electronic recruitment services. These conclusions coincided with the results of R. Espada-Chavarría *et al.* (2021) and T. Aichner *et al.* (2024), who, on the basis of comparative analysis, pointed out that only a comprehensive contextual approach, taking into account the national features of the legal system, sociocultural norms, and the level of digitalisation, made it possible to effectively implement institutional changes and increase the employment of persons with disabilities in different socio-economic conditions of Europe.

The role of political participation of persons with disabilities was considered in the works of M. Waltz and A. Schippers (2021) and K. Michielsens and L. Brockschmidt (2021), which argued that the low level of institutional accessibility of electoral procedures, both physical and informational, limited the right to vote for persons with disabilities. The authors showed that polling stations were often unsuitable for people in wheelchairs, and electoral information was not always available in formats adapted for people with visual, hearing, or cognitive impairments. The absence of systematic work on these barriers led to insufficient representation of the interests of persons with disabilities in government bodies, which in turn reduced the political effectiveness of advocacy efforts. Particular attention was paid to the regulatory aspect of rights protection. In the publication by F. Malik *et al.* (2021), the key emphasis was on the rights-based approach, within which disability was considered not as a medical or social problem, but as a matter of human rights. The researchers argued that without proper regulatory support, backed by effective control and sanction mechanisms, even progressive legislation did not guarantee the real protection of the rights of persons with disabilities. The analysis showed that in many European countries, there was a gap between the declarative principles of the UN Convention on the Rights of Persons with Disabilities and the actual implementation at the level of national practice. Thus, the consideration of spatial, cultural, gender, political, and regulatory barriers made it possible to gain a deeper understanding of the complex multidimensional nature of inclusion in the European context. The data obtained showed that the successful integration of people with disabilities into social life required not only legal changes but also systemic transformations in spatial planning, cultural policy, mechanisms of political participation, and the consideration of intersectional discrimination.

The results also correlated with approaches to assessing physical activity in the context of social stratification, as shown in the work of A. Moreno-Llamas *et al.* (2020), where limited access to recreational practices negatively affected the overall viability and working capacity of persons with disabilities. The study was consistent with the work of H. Steyn *et al.* (2020), which found that even in specialised production workshops, persons with disabilities faced numerous barriers, both organisational and social. The role of employment policy as a moderator of inclusiveness was confirmed in the study by R. Van Der Zwan and P. De Beer (2021), which established that the success of policies directly depended on the comprehensive nature of state support. In summary, it should be noted that the study revealed a whole range of barriers: regulatory, spatial, digital, and sociocultural, which required further systemic transformation. The results confirmed and developed the conclusions of numerous authors on the importance of a comprehensive approach to the formation of an inclusive labour market.

Conclusions

The results of the study made it possible to formulate comprehensive conclusions on the state of the inclusive labour market for people with disabilities in Ukraine, Poland, Germany, and France. The comparative analysis showed that there were significant differences in the level of regulatory support, employers' attitudes, social assistance, and the overall well-being of people with disabilities in the specified countries. The experience of European countries, particularly Germany and France, demonstrated the effectiveness of a systemic approach to inclusion, including the legislative framework, state programmes, financial incentives for employers, and a cultural shift in the perception of disability. For Ukraine, this study was an important source for the

further reform of employment policy for persons with disabilities, the adaptation of European practices, and the creation of a favourable environment for the integration of people with disabilities into the labour market.

The results of the study made it possible to identify significant heterogeneity in the implementation of employment policies for people with disabilities in Ukraine, Poland, Germany, and France. It was established that in countries with developed institutional support mechanisms, particularly in Germany and France, comprehensive systems of technical, financial, and organisational assistance for employers and employees with disabilities functioned. For example, the Integrationsämter in Germany provided long-term support for workplace adaptation, staff training, and quota monitoring, while the French AGEFIPH accumulated employer contributions and funded a wide range of services – from adaptation to professional support. Poland demonstrated a high level of public funding through the State Fund for the Rehabilitation of Persons with Disabilities, but some programmes were implemented in a fragmented way or required modernisation. In Ukraine, fragmentation was found between legislative regulation, administrative practice, and the actual state of employment of people with disabilities in the labour market. It was indicative that only about 17% of people with disabilities were employed, whereas in EU countries these figures varied between 42-51%. Special attention in the study was focused on the analysis of case law on labour disputes. In EU countries, a significant number of precedent-setting cases were identified, concerning both technical adaptation and systemic violations of access to employment. For example, in the case of the Federal Labour Court of Germany (10 AZR 123/19), an employer was obliged to compensate for the refusal to adapt a workplace for an employee with multiple sclerosis. Similarly, in France, the Conseil d'État issued

a decision to remove architectural barriers in a supermarket, and the Supreme Court of Poland recognised as discriminatory the refusal to adapt a workplace for a person with a hearing impairment. All these decisions demonstrated the effectiveness of judicial protection and strengthened the role of supervisory and human rights institutions. In Ukraine, such cases were much fewer, which was explained both by the low level of legal awareness and weak institutional support.

The analysis showed that in most European countries, court cases most often concerned technical or architectural inaccessibility, non-fulfilment of quotas, refusal of support, or discrimination in employment. The data confirmed that institutional effectiveness was directly linked to the existence of specialised structures at the regional level, adequate budgetary funding, as well as clear monitoring and response procedures. An

important role was played not only by regulatory acts but also by established mechanisms of inter-agency interaction, the involvement of public organisations, and financial instruments (subsidies, grants, tax benefits). The prospect of further research was an in-depth analysis of the employment of persons with disabilities with mental and cognitive impairments, which remained an insufficiently studied aspect in the general system of social integration.

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Інклюзивний ринок праці: нормативні бар'єри та можливості людей з інвалідністю в Європі

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Анотація

Метою дослідження була оцінка нормативних бар'єрів та можливостей інклюзивного ринку праці для людей з інвалідністю в Україні та країнах Європи. У дослідженні було проведено порівняльний аналіз нормативних бар'єрів, аналіз статистичних даних інклюзивного ринку праці, працевлаштування людей з інвалідністю та можливостей працевлаштування осіб з інвалідністю в Україні, Польщі, Федеративній Республіці Німеччина та Франції. В Україні закони "Про основи соціальної захищеності осіб з інвалідністю" та "Про зайнятість населення" встановлюють квоти для працевлаштування осіб з інвалідністю та визначають обов'язки роботодавців, проте контроль за виконанням залишається формальним і неефективним. У Польщі, Німеччині та Франції відповідні закони та нормативні акти передбачають обов'язкові квоти, фінансові стимули, адаптацію робочих місць і чіткий контроль за дотриманням, що забезпечує високий рівень виконання та ефективну інтеграцію осіб з інвалідністю на ринку праці. Виявлено, що в Німеччині найбільша кількість судових позовів стосувалася технічної неадаптованості робочого місця; у Польщі – невиконання квот і відсутність супровідних послуг; у Франції – архітектурних бар'єрів і доступу до ESAT; в Україні – незаконного звільнення за ознакою інвалідності. Встановлено, що ефективність інклюзії значною мірою залежить від координації між державними структурами, роботодавцями та інституціями громадянського суспільства. Результати дослідження засвідчили, що для України пріоритетом має стати створення сталої системи регіональної підтримки, реформування професійної реабілітації, а також посилення контролю за дотриманням трудових прав осіб з інвалідністю. Практичне значення дослідження полягає в тому, що його результати можуть бути використані органами державної влади, зокрема міністерствами соціальної політики та праці, для вдосконалення нормативно-правової бази щодо працевлаштування людей з інвалідністю

Ключові слова: соціальна інтеграція; професійна реабілітація; трудова мобільність; доступне працевлаштування; правова адаптація



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Legal mechanisms for ensuring Ukraine's energy security during martial law in the context of natural resource and environmental protection

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Abstract

The aim of the study was to develop a systematic approach to improving the legal mechanisms for ensuring Ukraine's energy security in a state of martial law, based on a balance between the state's security and environmental interests. The methodological basis of the study consisted of systemic-structural, comparative-legal and formal-legal methods used to study national legislation, international regulatory acts and the practical experience of European countries. The main shortcomings of legal regulation were identified: the lack of specialised regulatory and legal acts on the restoration of energy infrastructure taking into account environmental standards, insufficient coordination between authorities and incomplete implementation of European environmental standards. The legislative basis for the successful experience of European countries has been analysed: Germany's achievement of a 45.4% share of renewable energy sources in the electricity sector, France's implementation of a programme to reduce the share of nuclear energy to 50%, Sweden's implementation of a strategy for a

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complete transition to renewable energy sources by 2040, Denmark's achievement of generating more than 50% of its electricity from wind and solar power, and Poland's implementation of a programme to diversify its energy balance with a plan to increase the share of renewable energy sources to 23% by 2030. Based on European practices, comprehensive proposals have been developed to improve Ukrainian legislation: amendments to the Law "On the Legal Regime of Martial Law", the creation of a special Law "On Energy Security", the formation of a single coordination centre under the National Security and Defence Council of Ukraine, and the introduction of mechanisms to stimulate renewable energy through a system of "green" tariffs and simplified administrative procedures. The results of the study provide a theoretical and practical basis for improving state policy in the field of energy security and environmental protection in the context of martial law and post-war reconstruction in Ukraine

Keywords: renewable energy; environmental standards; coordination centre; green tariffs; European integration

Introduction

Ensuring Ukraine's energy security during martial law is one of the key tasks on which the country's economic resilience, social stability and environmental security depend. Military actions deal a serious blow to energy infrastructure, increasing the burden on natural resources and creating additional environmental threats. In this context, there is an urgent need to create legal mechanisms that would not only ensure uninterrupted energy supply, but also take into account environmental challenges and comply with international standards. This issue is particularly relevant given the global trend towards renewable energy sources (RES), the strengthening of international cooperation in the field of energy security, and the tightening of environmental protection requirements. A comprehensive approach combining economic, legal, and environmental aspects is necessary to overcome these challenges and ensure the country's sustainable development.

Scientists are actively researching energy security issues in the context of military conflicts, paying attention to various aspects of this problem. Yu. Drachuk *et al.* (2023) focused on the integration of environmental standards into Ukraine's national policy, emphasising the

importance of harmonisation with European legislation. The authors noted that bringing Ukrainian standards into line with European Union (EU) requirements could contribute to greater energy sustainability by protecting natural resources during the economic recovery period. Their analysis also indicates that legal reforms must take into account the new challenges facing the energy sector during wartime. At the same time, the study by L. Yarmol *et al.* (2022) examined the legal aspects of environmental safety in a state of martial law, in particular issues related to the adaptation of international humanitarian law to current realities. The authors emphasised that maintaining environmental balance in crisis situations is only possible if a reliable environmental monitoring system is in place. O. Kravets *et al.* (2024) examined the legal aspects of compensation for environmental damage caused to Ukraine by military actions. They stressed that effective resolution of these issues requires international support and clear legal mechanisms to ensure compensation for damage. L. Melnyk *et al.* (2024) focused on the development of 'green' energy as the basis for the sustainable recovery of Ukraine's economy after the war.

A significant contribution to the development of the theoretical and methodological foundations of the issue under study was made by D.-A. Gună (2023), who conducted a thorough analysis of the international legal framework for environmental protection during armed conflicts, emphasising the importance of complying with international environmental law even in crisis situations. The author noted that disregard for these norms not only leads to environmental disasters, but also poses a threat to the future sustainable development of regions. The author also recommends strengthening the role of international organisations in monitoring the state of the environment in conflict zones.

A significant scientific contribution to the study of the relationship between environmental challenges and energy security was made by M. Nevitt (2024) who has made a significant scientific contribution to the study of the relationship between environmental challenges and energy security. The author analysed the impact of the Russian-Ukrainian war on climate security, emphasising that the war may slow down international progress in combating climate change, but in the long term may accelerate the global transition to renewable energy sources. In turn, Yu. Petlenko (2024) conducted a detailed study of renewable energy financing, emphasising its importance for strengthening Ukraine's energy independence. The author noted that investments in RES have the potential not only to stabilise the energy sector, but also to stimulate economic development in the regions. At the same time, I. Irtysheva *et al.* (2022) studied the problems of environmental safety in areas affected by military operations, developing methodological approaches to assessing the environmental safety of territories and identifying the regions most affected by hostilities.

H.H. Nguyen *et al.* (2024) made a significant contribution to understanding the economic

aspects of energy security by conducting an empirical study of the impact of economic sanctions against Russia on the profitability of energy companies in 57 countries, finding that renewable energy companies perform better financially than traditional energy companies in times of geopolitical tension. In the same context, P. Flamm and S. Kroll (2024) explored the relationship between environmental security and peacebuilding initiatives, emphasising the need to involve local communities and civil society in environmental restoration processes to achieve sustainable peace. S. Onyshchenko *et al.* (2023) analysed in detail the risks to Ukraine's environmental and economic security in a state of martial law, documenting the impact of military aggression on all components of the environment, including air, water and soil pollution and the destruction of flora and fauna, and proposed strategies for preserving the country's environmental and economic security.

All these studies indicate that ensuring Ukraine's energy security during martial law requires the integration of environmental standards, the adaptation of international law to Ukrainian realities, the development of renewable energy, and the creation of transparent resource management mechanisms. The authors emphasise the importance of harmonising national legislation with international standards, introducing innovative solutions for sustainable development, and strengthening international cooperation. However, questions remain regarding effective compensation for environmental damage, strengthening international environmental monitoring in conflict zones, and the practical implementation of renewable energy in crisis conditions.

The aim of the study was to identify effective legal mechanisms for ensuring Ukraine's energy security in a state of martial law, taking into account the requirements for the conservation of natural resources and environmental protection.

Materials and Methods

The source base of the study was based on international regulatory and legal acts in the field of energy and environmental protection of the European Union, in particular: Directives of the European Union and of the Council No. 2018/2001 (2018), No. 2018/2002 (2018), No. 2009/119/EC (2009), No. 2011/92/EU (2011). An analysis of these documents has made it possible to identify the basic principles and mechanisms of legal regulation of energy security in the EU. The national legislation of Ukraine was represented by Law of Ukraine No. 1264-XII (1991), Law of Ukraine No. 389-VIII (2015), Law of Ukraine No. 2019-VIII (2017), as well as relevant subordinate regulatory acts. An analysis of these documents made it possible to assess the current state of legal regulation of energy security in Ukraine and identify the main problems in this area.

Particular attention was paid to the study of the legislation of neighbouring EU member states in the field of environmental impact assessment and energy security. Polish legislation was analysed, in particular the Acts of Poland "On Energy Law" (1997) and "On Access to Information on the Environment and its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments" (2008), which establishes EIA procedures for projects with a potential impact on the environment, including a simplified procedure for urgent cases. The Law of Hungary No. LIII "On the General Rules of Environmental Protection" (1995), which implements the requirements of Directive of the European Parliament and of the Council No. 2018/2001 (2018) on the environmental assessment of energy projects, was examined.

Analytical reports and studies by international organisations were an important source of information: GOLAW (2024) data on the assessment of damage to Ukraine's energy infrastructure, reports by the European Environment

Agency (Renewable energy in the EU, n.d.) and the IEA (2020). Materials from WWF (2024) studies on the environmental consequences of military actions and their impact on the environment were used. Statistical information was obtained from Eurostat databases (Renewable energy statistics, 2024), which made it possible to analyse the dynamics of renewable energy development in EU countries. The work also uses national strategic documents of European countries: the German Energiewende strategy (n.d.), the French Law of France No. 2015-992 (2015), Sweden's Integrated National Energy and Climate Plan (2020), the Danish experience of transitioning to renewable energy (State of Green, 2021), Ministry of Climate and Environment of Poland (2021).

A systemic-structural method was used to analyse Ukraine's energy security regulatory framework, which made it possible to identify structural elements and the links between them. This method was used to identify gaps in legislation and develop proposals for their elimination. A comparative legal method was used to study the experience of European countries in the field of legal regulation of energy security. This method made it possible to identify common and distinctive features in the approaches of different countries to ensuring energy security and environmental protection, as well as to determine the possibilities for adapting successful European experience in Ukraine. The formal legal method was used to analyse the content of legal norms, interpret them, and develop proposals for improving legislation. This method was used to analyse the current regulatory and legal acts of Ukraine and the EU in the field of energy and environmental protection, determine their legal nature and specific features of application. The legal modelling method was used in developing proposals for improving the legal mechanisms for ensuring Ukraine's energy security and formulating recommendations for changes in legislation.

Results

Legal mechanisms for ensuring Ukraine's energy security under martial law and their impact on the conservation of natural resources and environmental protection. Ensuring Ukraine's energy security during martial law has taken on a special strategic importance, as the stable functioning of the energy sector is fundamental for maintaining societal life, ensuring economic resilience, and guaranteeing national security. The legal regulation of this critical area is based on a comprehensive system of legal acts that establish a clear procedure for actions in emergencies, define the scope of authority of state bodies, and ensure a necessary balance between the needs of the energy sector and the imperatives of protecting the natural environment. The fundamental legislative act in this area is Law of Ukraine No. 389-VIII (2015), which establishes the specifics of the functioning of state institutions, the economic sector, and the energy industry during martial law. It grants state bodies expanded powers to make urgent decisions in the field of energy security, including the ability to introduce a special operating regime for energy sector enterprises, mobilise necessary resources, and regulate energy supply processes in an emergency.

Military actions on the territory of Ukraine have had a massive negative impact on energy infrastructure and the state of the environment. According to the World Bank, Ukraine's energy infrastructure has suffered more than USD 11 billion in damages due to military actions. Over 60% of the energy infrastructure was damaged, causing mass power outages across the country. Green energy was also affected, which accounted for 13% of the energy mix before the war (GOLAW, 2024). Such destruction has led to systematic interruptions in electricity and heat supply, which directly affected the life support of millions of citizens and caused significant socio-economic consequences. It is especially critical that the destruction of energy

facilities often leads to large-scale environmental disasters that cause significant environmental pollution. For example, the 1986 reactor explosion at the Chernobyl nuclear power plant caused radioactive contamination of groundwater and surface water over a large area of Ukraine, Belarus, and neighbouring countries, the consequences of which are still felt today. Or the Deepwater Horizon oil rig disaster in 2010, which caused millions of barrels of oil to spill into the Gulf of Mexico, polluting the oceanic ecosystem and coastline. Also, the destruction of the Kakhovka HPP in 2023 led to massive flooding of territories and chemical pollution of the Dnieper River due to spills from industrial facilities. All these cases demonstrate the danger of the destruction of energy facilities to ecosystems and human life, emphasising the need to strengthen measures for their protection and the elimination of the consequences of such disasters. The legal regulation of natural resource conservation is carried out in accordance with Law of Ukraine No. 1264-XII (1991), which enshrines the fundamental principles of the state's environmental policy, establishes the priority of environmental interests over economic ones, and provides mechanisms for responsibility for damage caused to the environment. However, under martial law, the implementation of the provisions of this law faces objective difficulties due to the limited available resources and the need to prioritise military needs.

The impact of military actions on the environment is complex and multi-directional, including both direct and indirect consequences for ecosystems. Direct consequences include the physical destruction of natural landscapes, the pollution of atmospheric air and water resources, and the mass death of flora and fauna. Indirect consequences are manifested in the gradual degradation of ecosystems, a significant decrease in biodiversity indicators, and negative changes in the region's climatic conditions. For example,

large-scale fires at oil depots lead to significant emissions of carbon dioxide and other greenhouse gases, which significantly accelerates global warming (WWF, 2024).

An analysis of the provisions of current Ukrainian legislation reveals several gaps that make it impossible to effectively account for both energy and environmental challenges during martial law. For instance, while Article 8 of the Law of Ukraine No. 389-VIII (2015) outlines the general powers of state authorities, there is no mention of the procedure for the rapid restoration of damaged energy facilities while considering the need to preserve the environment. This law also fails to provide a procedure for assessing the environmental impact of repairs or reconstruction of energy infrastructure damaged by military actions. This gap becomes particularly critical in practice because, on one hand, the state must ensure the uninterrupted functioning of the energy sector during martial law, while on the other, it must avoid additional environmental pollution or destruction. Furthermore, Article 15 of the Law of Ukraine No. 2019-VIII (2017) regulates relations between market participants but does not contain provisions for emergency state intervention in the event of the destruction of critical energy facilities, nor does it establish mandatory environmental measures for the reconstruction of damaged generation or power lines. In contrast, Article 3 of the Directive of the European Parliament and of the Council No. 2018/2001 (2018) explicitly states the need for environmental impact assessment in the implementation or restoration of renewable energy projects, including those carried out in emergency or crisis situations. This highlights the priority of environmental safety alongside ensuring energy resilience. This difference in approaches reveals a significant inconsistency between national and EU law, which hinders the effective implementation of European norms in Ukraine and

jeopardises both the environment and the state's energy security.

Ukrainian legislation in the field of energy and ecology, especially during martial law, differs significantly from the corresponding regulations in neighbouring EU countries. In Poland, the approach to regulating energy and ecology is different due to a clear procedure for environmental impact assessment (EIA) for projects with a potential significant environmental impact. Although the Act of Poland "On Energy Law" (1997) does not contain direct provisions on EIA, the environmental aspects are regulated by the Act of Poland "On Access to the Provision of Information on the Environment and its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments" (2008). This law mandates EIA for projects that may have a significant environmental impact, including emergency cases. In addition, Poland provides for simplified procedures for urgent projects, which allows for environmental risks to be taken into account even in emergency conditions.

In neighbouring Hungary, Law No. LIII (1995) and relevant by-laws require a mandatory environmental impact assessment (EIA) for projects that may have a significant impact on the ecosystem. Although the law does not explicitly mention emergency work on infrastructure facilities, it establishes general principles for assessing environmental impact, including provisions for projects carried out on a tight schedule. This allows for environmental aspects to be considered even in emergency situations, establishing minimum requirements for environmental protection. This approach was aimed at minimising risks to ecosystems even in critical conditions, ensuring a balance between the speed of project implementation and the preservation of the natural environment. Romania, in its environmental legislation, is based on the Directive of the European Parliament and of the Council No. 2018/2001 (2018), which

requires environmental aspects to be taken into account during the design, construction, and reconstruction of energy facilities. This applies even to projects implemented in emergency situations, as a simplified EIA procedure is provided.

Features of legal regulation of energy security in European countries: Environmental aspect. The European Union and its member states have developed and implemented a comprehensive system of legal regulation for energy security, which is closely integrated with environmental requirements and sustainable development strategies. An analysis of European legislation in this area demonstrates the EU's consistent desire to achieve an optimal balance between ensuring a reliable energy supply and minimising negative environmental impact. The foundational document that defines the strategic directions of the EU's energy policy is the European Green Deal (2019), which sets the ambitious goal of achieving climate neutrality by 2050. The strategy provides for a reduction in greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels, an increase in energy efficiency, and a greater share of renewable energy sources in total energy consumption. RES includes types of energy such as solar, wind, hydropower, and bioenergy, which have the ability to regenerate naturally and have a minimal impact on the environment.

The EU's legal framework for energy security includes a number of important directives and regulations, among which are the Directives of the European Parliament and of the Council No. 2018/2001 (2018) and No. 2018/2002 (2018). The former sets a mandatory target of achieving 32% renewable energy sources in the EU's total energy consumption by 2030 and provides legal mechanisms for cooperation between member states, including Joint Projects and the possibility of transferring "surplus" RES generation from one country to another. In addition, the directive obliges the creation of

"one-stop-shops" for obtaining permits, which significantly simplifies the process of launching projects in the "green" energy sector. Separate provisions of the directive (Articles 21-22) introduce tools to involve communities in the production of renewable energy, in particular through the promotion of prosumer initiatives and the development of "energy communities," which are guaranteed the right to produce, consume, and sell surplus energy to the grid. Thanks to this combination of legal and financial levers, EU countries receive an effective toolkit for increasing the share of RES, while at the same time promoting investment development in the sector and the creation of local "green" energy markets.

Meanwhile, Directive of the European Parliament and of the Council No. 2018/2002 (2018) sets the goal of increasing energy efficiency indicators by 32.5% by 2030 and obliges member states to approve national action plans for energy efficiency. In particular, Articles 3 and 7 oblige the introduction of standards for the modernisation of buildings and heating systems, and Articles 2a and 4 require the formation of long-term strategies with clearly defined guidelines and interim reports. To stimulate energy-efficient projects, the directive provides for the creation of national funds and the use of preferential financial instruments and tax incentives (Article 20), which motivates both businesses and households to invest in technologies that can reduce energy consumption. In this way, the EU combines regulatory and market mechanisms, enshrining "binding targets" and creating conditions for sustainable development, where renewable energy sources and energy efficiency measures play a leading role in strengthening energy security (International Energy Agency, 2021).

An analysis of the specifics of legal regulation in individual European countries demonstrates a variety of approaches to ensuring energy security, taking into account national characteristics and

priorities. Germany is implementing the *Energiestrategie* (n.d.), which provides for a gradual transition from nuclear and fossil energy to RES. The Law of the Federal Republic of Germany "On the Expansion of Renewable Energies" (2014) stimulates the development of RES through fixed tariffs and auctions. At the same time, the updated law "On Electricity and Gas Supply (Energy Industry Act – EnWG)" (2005) provides for the priority connection of "green" generation, and supplements to the Building Code (BauGB) (Buzer.de, 2017) and the Federal Immission Control Act (BImSchG) (Law of the Federal Republic of Germany..., 1974) simplify the receipt of permits and unify environmental requirements. Thanks to such mechanisms, investors receive stable conditions, which accelerates the implementation of new projects and allows for a gradual transition away from fossil fuels and nuclear energy. In France, where nuclear energy has traditionally held a dominant position, the government adopted Law of France No. 2015-992 (2015), which sets goals to reduce the share of nuclear energy to 50% and increase the share of RES to 32% by 2030 (Ministry of Environment, Energy and the Sea, 2016). France is actively developing wind and solar energy and is also implementing energy efficiency programmes in the construction sector. In 2020, the share of RES in France's total energy consumption reached 19.1% (Renewable energies and..., 2021), which indicates gradual progress in achieving the set goals.

Sweden stands out as a leader in renewable energy use, with RES accounting for over 60% of its total energy consumption (Sweden Sverige, 2024). This is a result of a long-term policy focused on developing hydropower, bioenergy, and wind power. The Sweden's Integrated National Energy and Climate Plan (2020) promotes energy efficiency and innovation, and aims for a complete transition to RES in electricity generation by 2040. Sweden is also actively implementing

measures to decarbonise transport and industry, which involves reducing carbon dioxide emissions through a transition to environmentally friendly technologies, contributing to an overall reduction in greenhouse gas emissions. In contrast, Poland, which is heavily dependent on coal energy, is working on diversifying its energy mix. The Energy Policy of Poland until 2040 (2021) aims to reduce the share of coal in electricity generation to 56% by 2030 and develop RES, particularly offshore wind energy. Poland plans to increase its installed RES capacity to 23% by 2030, which should help reduce CO₂ emissions and enhance energy security.

An important aspect of European energy policy is the mechanisms for ensuring energy security in crisis conditions. The Directive of the Council of the European Union No. 2009/119/EC (2009) obliges member states to maintain minimum reserves of oil and petroleum products equivalent to 90 days of average daily imports. This prepares EU countries for potential disruptions in energy supply and ensures the stability of the energy market. The Regulation of the European Parliament and of the Council No. (2017) on the security of gas supply establishes mechanisms for cooperation and solidarity among member states to prevent and respond to gas crises. In 2022, the EU adopted the "Save Gas for a Safe Winter" plan (European Commission, 2022a), which aimed to reduce gas consumption by 15% to enhance energy security amid geopolitical instability.

Research on the balance between security and environmental requirements shows that European countries seek to integrate environmental standards into energy policy even during crises. After the 2021 energy crisis, caused by rising gas prices, the EU did not abandon its environmental goals. On the contrary, it emphasised the importance of accelerating the transition to RES to reduce dependence on imported fossil fuels (European Commission, 2022b). An

empirical assessment of the effectiveness of European mechanisms, based on statistical data on RES development and energy efficiency, demonstrates positive trends. According to Eurostat, the share of RES in EU energy consumption grew from 9.6% in 2004 to 22.1% in 2020 (Erin, 2023), which indicates the success of legal mechanisms and policies stimulating the development of “green” energy. To better understand this,

Figure 1 shows the historical dynamics of the growth of the share of RES and the target set for 2030. Countries with clear legal mechanisms and strategic planning achieve better results in energy security and environmental sustainability. For example, Sweden, with a high share of RES, has a low dependence on energy imports (32.2%) and one of the lowest per capita CO₂ emissions in the EU (3.8 t/year) (Renewable energy statistics, 2024).

Share of EU's energy from renewable sources | %

Hover over the chart to see the shares

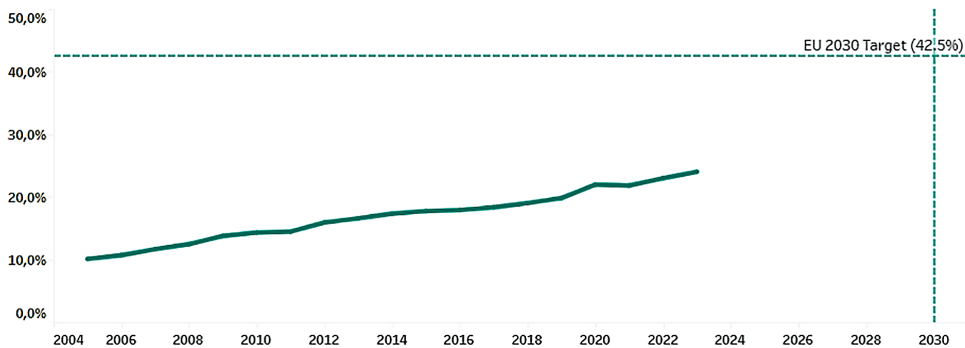


Figure 1. Share of energy from renewable sources in the EU, 2004-2030

Notes: Gross final energy consumption. The solid line represents reported data on the share of energy from renewable sources in the EU. The dotted line – a linear trajectory between the latest reported value and the target

Source: Renewable energy in the EU (n.d.)

Figure 1 shows steady and consistent growth over the last two decades, which is a direct result of the implementation of a comprehensive system of legal regulation and incentives for the development of RES. It is particularly important that even in the face of various economic challenges and crises, the growth trend remains stable, and the target of 42.5% by 2030, although ambitious, appears achievable if the current pace of development in the sector is maintained. This progress clearly illustrates the effectiveness of European energy transformation policy and demonstrates the practical implementation of the goals set out in EU directives and strategic documents.

Along with the growth of the share of renewable energy sources in the EU's energy

balance, an important environmental result of this transition is the reduction of greenhouse gas emissions. Avoiding such emissions contributes to the achievement of climate goals and reduces dependence on fossil fuels. Data from Renewable energy in the EU (n.d.) indicate a significant impact of RES on reducing CO₂ emissions in various sectors. Figure 2 shows how renewable energy contributes to reducing emissions in the EU as a whole and in individual member states.

An analysis of the impact of renewable energy sources (RES) on greenhouse gas emission reduction, presented in Figure 2, provides evidence of the effectiveness of European decarbonisation policy. Progress in the electricity sector is particularly significant, showing the

most substantial emission reductions. A comparative analysis of the achievements of EU member states demonstrates the leadership of Germany, Spain, and France in reducing greenhouse gas emissions through the implementation of RES. This confirms the effectiveness of their national strategies and legal mechanisms to incentivise the development of renewable energy. It is important to note that positive trends are observed not only in electricity but

also in the heating, cooling, and transport sectors, indicating the comprehensive nature of the energy transition in the EU. This trend not only confirms the correctness of the chosen course towards decarbonising the economy but also creates a strong empirical basis for further improving energy security policy with environmental aspects in mind, which is particularly relevant for Ukraine in the context of its European integration and energy sector reform.

Countries RES Shares in 2020 and 2023 (proxy) | Variable

Hover over the bar to see the numbers for RES Shares in % and growth in %-points

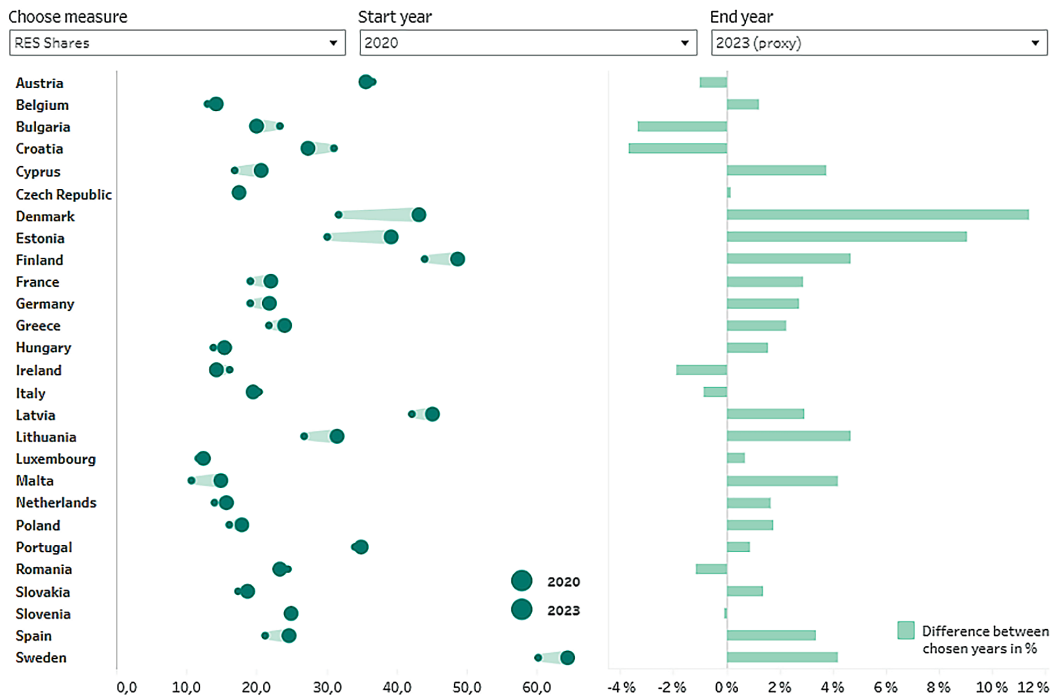


Figure 2. Environmental effects of RES use: greenhouse gas emissions reduction, 2005-2023
Source: Renewable energy in the EU (n.d.)

An analysis by the IEA (2020) shows that the implementation of energy-efficient technologies in EU countries has led to a 1.5% annual reduction in energy consumption over the last decade, which is equivalent to a saving of EUR 15 billion per year. This highlights the economic benefits of

implementing energy efficiency policies and confirms their role in ensuring energy security. Identifying promising directions for Ukraine involves adapting European experience while considering national specifics. First, it is necessary to develop a long-term strategy for the development of

RES and energy efficiency with clear targets. This should include legislative consolidation of goals for increasing the share of RES in the energy balance, improving energy efficiency in all sectors of the economy, and reducing greenhouse gas emissions in line with Ukraine's international obligations. It is important to implement legal mechanisms that will incentivise investment in "green" energy through fixed tariffs, auctions, and tax benefits, which will create favourable conditions for attracting private capital and international investments in the development of the RES sector.

The development of infrastructure to integrate RES into the energy system, including energy storage systems and "smart" grids, will contribute to the stability of the energy supply and the efficient use of renewable resources. In 2022, Ukraine joined the European energy network ENTSO-E (2023), which is an association of European electricity transmission system operators. This increases the stability of the energy system and promotes market integration, opening up new opportunities for technical cooperation and the exchange of experience in the field of energy system management. The integration of EU environmental standards into national legislation, in particular through the implementation of EU directives within the Association Agreement (2014), will contribute to the harmonisation of the legal field and the improvement of environmental standards. This will also open up new opportunities for cooperation and access to European financial instruments, such as the programmes of the European Investment Bank and the European Bank for Reconstruction and Development, which support projects in the RES and energy efficiency sectors.

Improving legal regulation of energy security in Ukraine. Improving the legal regulation of Ukraine's energy security requires a comprehensive approach, especially during martial law and growing environmental challenges. An analysis

of current legislation and its application has revealed a number of systemic problems that significantly limit the state's ability to ensure the stable functioning of the energy sector and the proper protection of natural resources. In particular, the Law of Ukraine No. 389-VIII (2015) lacks detailed provisions on the specifics of managing the energy sector and environmental protection during martial law, which creates legal uncertainty and complicates the process of making operational decisions in crisis situations. At the same time, the Law of Ukraine No. 2019-VIII (2017) does not take into account the specifics of the energy market in emergency situations, which significantly limits the possibilities of state regulation to ensure an uninterrupted energy supply. In addition, the lack of specialised regulatory acts that would regulate the processes of restoring energy infrastructure while taking into account modern environmental standards creates significant obstacles to the effective reconstruction of the industry and the minimisation of negative environmental impact.

Military actions on the territory of Ukraine have caused large-scale damage to energy infrastructure and led to serious environmental consequences. According to official data from the Ministry of Energy of Ukraine, as of December 2022, over 50% of energy facilities were damaged to varying degrees (50% of Ukraine's energy..., 2023). Such damage has caused massive interruptions in the supply of electricity and heat, which has negatively affected the livelihoods of the population and the country's economy. It is especially critical that the damage to oil depots, gas pipelines, and other energy facilities has led to large-scale pollution of soils, water resources, and atmospheric air, creating long-term environmental problems. The pollution of land and water resources, in particular with heavy metals and petroleum products, can have serious consequences for the health of the population and the biodiversity of the regions affected by the fighting.

To overcome these challenges, it is necessary to develop and implement a set of concrete proposals to improve legal mechanisms. First, it is proposed to supplement the Law of Ukraine No. 389-VIII (2015) with a separate section that will detail the specifics of managing the energy sector during martial law. This section should provide for clear mechanisms for rapid response to threats to energy security, including procedures for emergency repair and restoration of damaged infrastructure using modern technologies and taking into account environmental standards. This will ensure a quick restoration of energy supply and minimise negative environmental impact. An important element is the introduction of a special operating regime for energy enterprises, which will ensure an uninterrupted energy supply to critical facilities such as hospitals, water supply stations, and other infrastructure, including mechanisms for flexible regulation of tariffs and energy supply conditions. In addition, it is necessary to establish a clear procedure for mobilising resources for the restoration of energy infrastructure, including procedures for attracting material and human resources, as well as mechanisms for international assistance and cooperation with international organisations and partners.

The next important step should be the development and adoption of a special Law of Ukraine "On Energy Security," which will define the general principles of state policy in this area, establishing the priority of ensuring energy independence, diversifying energy sources, and developing its own energy capacities, in particular by stimulating the use of renewable energy sources. This legislative act should clearly define the competence of state authorities in the field of energy security, ensuring an effective distribution of powers between central and local authorities, as well as between various departments such as the Ministry of Energy, the Ministry of Environmental Protection and Natural Resources, and the State

Emergency Service. Special attention should be paid to the mechanisms for coordinating actions between various departments and agencies for an effective response to crisis situations, which may include the creation of a single coordination centre for energy security and environmental protection under martial law on the basis of the National Security and Defence Council (NSDC) of Ukraine with the involvement of representatives of relevant ministries and departments.

Improving environmental legislation to account for the specifics of martial law is an integral part of a comprehensive approach to solving the problem. It was proposed to amend the Law of Ukraine No. 1264-XII (1991) to establish a special environmental control regime during martial law, which will allow for prompt detection and response to environmental threats caused by military actions. This can be achieved by strengthening monitoring, using modern remote sensing technologies, and attracting additional resources. A crucial aspect is making Environmental Impact Assessments (EIA) mandatory for the reconstruction and construction of energy facilities, even in emergency conditions. This will help minimise the negative impact on ecosystems and ensure the sustainable use of natural resources. Additionally, it is necessary to establish clear responsibility for environmental offenses under martial law, particularly for the deliberate damage to environmental objects or negligence leading to ecological disasters.

The implementation of European experience in energy security and environmental protection involves adapting the best practices and standards of the EU to Ukrainian national legislation. Specifically, it is necessary to implement the provisions of the Directive of the European Parliament and of the Council No. 2018/2001 (2018) on the promotion of the use of energy from renewable sources by introducing effective mechanisms to stimulate the development of renewable energy

sources (RES), such as the “green” tariff system and holding auctions to attract new investors. A telling example of the successful implementation of such mechanisms is the experience of Spain, where the auction system for supporting RES has significantly increased the installed capacity of solar and wind energy (Rosales-Asensio *et al.*, 2024). An important element is the simplification of administrative procedures for the construction and connection of RES facilities, which will reduce bureaucratic barriers and accelerate the development of the sector. For example, in Germany, legislation provides for simplified procedures for small and medium-sized RES projects, which encourages the active participation of local communities and entrepreneurs in the development of renewable energy.

The implementation of the provisions of the Directive of the European Parliament and of the Council No. 2012/27/EU (2012) on energy efficiency will contribute to the establishment of national energy efficiency targets and the improvement of building energy efficiency through the introduction of minimum energy standards for new and reconstructed buildings. A successful example of such a strategy is the experience of Denmark, which has introduced high energy efficiency standards and financial incentives for building modernisation, leading to a significant reduction in energy consumption (Danes embrace energy..., 2024). The integration of EU environmental standards, particularly the provisions of the Directive of the European Parliament and of the Council No. 2011/92/EU (2011) on the assessment of the environmental impact of certain public and private projects, will ensure that EIA is mandatory for all significant energy projects and that the public is involved in this process. A striking example is the experience of Finland, where public participation in the EIA process is mandatory, which helps in making more balanced decisions and increases public trust in the authorities (OECD, 2021).

The mechanisms for implementing the proposed changes must be practical and effective, which involves holding broad consultations with all interested parties, including representatives of the energy sector, environmental organisations, and local communities. An important aspect is ensuring proper training and capacity building for the staff of state bodies and energy enterprises, which may include cooperation with European partners and international organisations. At the same time, it is necessary to take into account possible obstacles to the implementation of the proposed changes, such as resistance from certain interested parties, insufficient funding, and a lack of qualified personnel. To overcome these obstacles, it is necessary to provide for a system of financial incentives and benefits, mechanisms for attracting international aid and investment, and training and capacity-building programmes.

An assessment of the potential impact of the proposed measures on various sectors of the economy and society indicates their positive effect. The energy sector will have the opportunity to modernise its infrastructure and increase its resilience and efficiency. The economy as a whole will receive an additional impetus through attracting investment, creating new jobs, and developing innovative technologies. The social sphere will benefit from increased reliability of energy supply and an improved environmental situation, which will have a positive impact on public health and the quality of life of citizens.

Practical experience in European countries confirms the effectiveness of the proposed measures. In particular, Germany’s Energiewende programme envisaged a gradual shift away from nuclear and coal-fired power in favour of RES, accompanied by the creation of an appropriate legal framework and system of financial incentives. As a result, the share of RES in the country’s electricity sector increased to 42.6% in 2019 (Agora Energiewende, n.d.), contributing to a reduction

in CO₂ emissions by more than 50 million tonnes and the creation of new jobs. In Denmark, setting ambitious targets for a complete phase-out of fossil fuels by 2050 and introducing effective legal mechanisms and state support has enabled the country to become a leader in wind energy, generating more than 50% of its electricity from wind and solar power in 2020. This success was made possible by consistent government policy, which included a ban on the construction of new coal-fired power plants since 1997, the introduction of a “single window” system for obtaining permits, the implementation of demonstration projects through public-private partnerships, and the creation of favourable economic incentives for the development of renewable energy (State of Green, 2021). In France, the adoption of Law of France No. 2015-992 (2015) set targets for reducing the share of nuclear energy and increasing RES, accompanied by the introduction of support mechanisms for the development of solar and wind energy, as well as energy efficiency programmes.

The expected results of the proposed measures include a significant increase in Ukraine's energy security, which will be achieved by reducing dependence on energy imports, diversifying supply sources and actively developing domestic energy capacities, particularly in the field of renewable energy sources. An important aspect is the expected improvement in the environmental situation, which will reduce the negative impact on the environment and preserve biodiversity and natural resources through the integration of modern environmental standards into the processes of restoration and development of energy infrastructure. Improvements in the efficiency of public administration will be achieved through the introduction of a clear division of powers between authorities, the improvement of mechanisms for coordinating their activities, ensuring transparency in decision-making processes, and the active involvement of the public in discussions

on important issues relating to the development of the energy sector.

Particular attention should be paid to the economic aspects of the proposed changes, in particular the creation of favourable conditions for attracting investment in the renewable energy and energy efficiency sectors, which will contribute to overall economic development, the creation of new jobs and the strengthening of the country's scientific and technical potential. An important element is the strengthening of international cooperation and the deepening of Ukraine's integration into the European energy space, which will strengthen the country's position in the international arena, ensure the fulfilment of international obligations and obtain the necessary financial and technical assistance for the modernisation of the energy sector. Comprehensive improvement of the legal mechanisms for ensuring Ukraine's energy security in a state of martial law, taking into account the requirements for the conservation of natural resources and environmental protection, is a necessary prerequisite for achieving sustainable development of the state. The proposed practical and specific recommendations, based on an analysis of current legislation and successful European experience, can create a solid foundation for effectively responding to contemporary challenges and ensuring the stable and environmentally safe functioning of the energy sector. The implementation of these recommendations will not only contribute to ensuring internal stability and economic growth, but also to enhancing Ukraine's international authority as a reliable partner that consistently adheres to high standards in the field of energy and ecology.

Discussion

The study revealed fundamental problems in the legal regulation of Ukraine's energy security under martial law, which require a systematic solution that takes into account environmental

imperatives and the country's European integration aspirations. Based on the results of a comprehensive analysis of the regulatory framework and law enforcement practices, critical shortcomings were identified in three key areas: coordination of government agencies, mechanisms for assessing and compensating for environmental damage, and procedures for restoring damaged energy infrastructure. In particular, the lack of clearly regulated procedures for interaction between different agencies leads to duplication of functions and inefficient use of resources in critical situations. There was a lack of effective balance between energy security objectives and environmental protection requirements, leading to significant economic losses and environmental risks in both the short and long term. These conclusions are strongly supported by the study by J.D. Colgan *et al.* (2023), who, based on empirical data, estimated the scale of Europe's economic losses due to energy dependence on Russian energy carriers at EUR 517-831 billion and justified the urgent need to diversify energy supply sources. M. Al-Saidi (2023) develops this thesis, proposing specific promising areas of cooperation with Middle Eastern countries to strengthen energy security and emphasising the importance of long-term strategic partnerships in the energy sector.

The study developed a comprehensive methodology for assessing the effectiveness of legal mechanisms for ensuring energy security, which, unlike existing approaches, integrates economic, environmental and security aspects into a single assessment system. The proposed methodology is based on a multi-level system of indicators, which allows not only to assess the current state of energy security, but also to predict potential risks and threats. Particular attention is paid to the possibility of assessing both the direct and indirect consequences of military actions for the energy sector, which is of exceptional relevance in the context of ongoing aggression. The devel-

oped methodological toolkit includes a system of quantitative and qualitative indicators that allow for a comprehensive assessment of the effectiveness of legal mechanisms at various levels of public administration. This correlates with the conclusions of A.B. Ige *et al.* (2024) regarding the need for a comprehensive approach to protecting energy infrastructure from modern threats, including cyberattacks and other forms of hybrid influence. C. Samaras *et al.* (2019) and D. Mara *et al.* (2022) confirm in their studies the conclusions about the strategic importance of energy security for the defence sector, emphasising the need to integrate energy issues into military planning. At the same time, a thorough study by M. Rajavuori and K. Huhta (2020) significantly complements the understanding of the role of investment screening in the protection of critical infrastructure, proposing additional mechanisms for assessing security risks when attracting foreign investment in the energy sector.

A significant result of the study was the development of a conceptual model for the transformation of Ukraine's energy sector in the context of European integration, based on a systematic analysis of existing legal mechanisms and an assessment of their compliance with European standards. It has been established that the current energy market model is characterised by significant structural shortcomings and requires fundamental changes to ensure compliance with the requirements of sustainable development and energy security. In particular, insufficient integration of environmental requirements into the processes of planning and implementing energy policy, the lack of effective mechanisms to stimulate the development of renewable energy sources, and the low efficiency of the state regulation system for the energy sector in crisis conditions have been identified. These findings are confirmed by the study by C. Kuzemko *et al.* (2022), which emphasises the critical

importance of accelerating the energy transition in the context of Russian aggression and stresses the need for a systemic transformation of the energy sector. L. Rodríguez-Fernández *et al.* (2020) provide strong empirical evidence in favour of the recommendation to diversify gas supply sources, demonstrating the positive impact of such a policy on energy security using the example of EU countries. An important contribution to understanding the issue is made by B. Zakeri *et al.* (2022), who develop the thesis on the need to build resilient energy systems in the context of multiple crises and propose specific mechanisms to increase their reliability.

A key element of the study was the development of comprehensive proposals for improving legal mechanisms to ensure energy security, taking into account both the specifics of martial law and the long-term goals of sustainable development of the state. Based on the analysis, amendments to a number of legislative acts were proposed, aimed at strengthening environmental protection mechanisms in the energy sector and implementing European environmental standards. In particular, proposals have been developed to improve the environmental monitoring system, introduce economic incentives for environmentally friendly technologies, and strengthen liability for violations of environmental legislation in the energy sector. The proposals find substantial support in the research of Yu. Kharazishvili *et al.* (2021), which offers additional methodological tools for assessing the effectiveness of such mechanisms and emphasises the need to adapt them to the specifics of martial law. Fundamental research by J.E. Payne *et al.* (2023) provides convincing evidence of the need to take into account global trends in the transformation of energy markets when formulating national policy, in particular regarding the development of renewable energy sources and the introduction of energy-efficient technologies.

The study pays particular attention to the analysis of the specifics of legal regulation in conditions of martial law, which revealed the need to develop special mechanisms for assessing and compensating for environmental damage caused by military actions. Based on a systematic analysis of international experience and national practice, innovative approaches to determining the amount of damage and mechanisms for its compensation are proposed, taking into account both the direct and long-term environmental consequences of military actions. A methodology has been developed to assess the cumulative impact of military actions on the environment and energy infrastructure, which allows for a more accurate determination of the amount of compensation required. An important contribution to understanding the issue is made by T.L. Shaar and R. Leal-Arcas (2024), who develop conclusions on the need to accelerate the decarbonisation of the energy sector, demonstrating its key role in ensuring long-term energy security and environmental sustainability.

A significant scientific contribution of this study is the development of comprehensive methodological principles for assessing the long-term environmental consequences of military actions for the energy sector and mechanisms for compensating for them. Based on the analysis, an integrated system of indicators for monitoring and assessing environmental damage has been proposed, taking into account both direct losses from infrastructure destruction and long-term consequences for ecosystems. Mechanisms for determining the cause-and-effect relationships between military actions and environmental damage have been developed, creating a legal basis for substantiating claims for compensation for damage caused. M. Dolynska *et al.* (2023) confirm the relevance of this approach, focusing on the specific problems of legal regulation of land relations in wartime and the need to develop special

mechanisms for the protection of environmental rights. N. Trotsiuk and H. Hrabovsky (2023) significantly develop recommendations for improving the environmental control and monitoring system, proposing specific tools to increase the effectiveness of state supervision in the environmental sphere.

Unlike previous studies, the proposed comprehensive approach to addressing energy security issues takes into account both the specifics of martial law and the long-term goals of sustainable development and European integration. This creates a reliable methodological and legal basis for the formation of effective state policy in the field of energy security and environmental protection. The results of the study are of direct practical importance for improving the system of state management in the energy sector and can be used in the development of strategic documents for the post-war reconstruction of Ukraine. In conclusion, it should be emphasised that ensuring Ukraine's energy security in a state of martial law requires a systemic transformation of the legal mechanisms for regulating the energy sector. The proposed changes to the legislation, the methodological approaches developed and the practical recommendations create a comprehensive basis for solving the identified problems, taking into account environmental requirements, EU standards and the specifics of martial law. A comparative analysis with the results of leading international studies confirms the relevance and validity of the proposed solutions aimed at strengthening energy independence, protecting critical infrastructure and ensuring the environmental security of the state.

Conclusions

The study demonstrated a systematic approach to improving the legal mechanisms for ensuring Ukraine's energy security during martial law. An analysis of the current legislation revealed critical shortcomings in the legal framework, in

particular, the lack of specialised regulatory acts for restoring energy infrastructure while taking into account environmental standards, inconsistencies between the provisions of the Law of Ukraine "On the Legal Regime of Martial Law" and sectoral laws in the field of energy and environmental protection, and insufficient integration of European environmental standards into national legislation. The lack of clear mechanisms for coordinating between authorities when responding to damage to critical energy infrastructure and mechanisms for assessing the environmental impact of restoration work is a particularly acute problem.

The study of the European experience in the legal regulation of energy security made it possible to identify effective mechanisms for ensuring a balance between energy and environmental interests. The successful practices of five EU countries were analysed, demonstrating different approaches to the transformation of the energy sector: the use of a system of "green" tariffs and auctions, energy certificate and investment grant systems, incentive systems for the development of offshore wind power and energy cooperatives, and mechanisms for simplifying administrative procedures.

Based on the analysis, a set of concrete proposals was developed to improve the legal regulation of Ukraine's energy security. It is proposed to amend the Law "On the Legal Regime of Martial Law," supplementing it with provisions on special procedures for restoring damaged energy infrastructure and mechanisms for assessing the environmental impact under martial law. The necessity of adopting a special Law "On Energy Security" was justified, which will define the principles of state policy in this area and establish mechanisms for coordinating the actions of authorities. It is recommended to create a single coordination centre under the National Security and Defence Council of Ukraine to manage the processes of restoring the energy sector and to introduce

a system for stimulating the development of renewable energy sources through “green” tariffs and simplified administrative procedures, following the example of European countries. The implementation of these proposals is expected to: reduce dependence on imported energy sources by 30-40% by 2030; increase the share of renewable energy sources in the energy balance to 25% by 2030; reduce greenhouse gas emissions by 40% compared to the 1990 level; create over 50,000 new jobs in the “green” energy sector; and attract at least 5 billion euros of foreign investment in the modernisation of energy infrastructure.

Further research should be focused on several key areas: the development of mechanisms for the financial support of the proposed changes, including the creation of a special energy reconstruction fund and a system of state guarantees for investors; the study of opportunities for attracting international investments for the restoration of energy infrastructure through mechanisms of

“green” bonds and climate funds; the study of the specifics of implementing European standards in the post-war reconstruction of Ukraine, in particular regarding the implementation of the Emissions Trading System and Cross-Border Carbon Adjustment Mechanisms; and the development of a methodology for assessing the effectiveness of the implemented legal mechanisms based on a system of quantitative and qualitative indicators that will allow for monitoring progress in achieving the set goals and timely adjusting state policy in the field of energy security.

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Conflict of Interest

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Правові механізми забезпечення енергетичної безпеки України під час воєнного стану в контексті охорони природних ресурсів і захисту довкілля

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Анотація

Метою дослідження було формування системного підходу до вдосконалення правових механізмів забезпечення енергетичної безпеки України в умовах воєнного стану на основі балансу безпекових та екологічних інтересів держави. Методологічну основу дослідження склали системно-структурний, порівняльно-правовий та формально-юридичний методи, використані для вивчення національного законодавства, міжнародних нормативно-правових актів та практичного досвіду європейських країн. Встановлено основні недоліки правового регулювання: відсутність спеціалізованих нормативно-правових актів щодо відновлення енергетичної інфраструктури з урахуванням екологічних стандартів, недостатня координація між органами влади та неповна імплементація європейських екологічних норм. Проаналізовано законодавчі засади успішного досвіду європейських країн: досягнення Німеччиною 45,4 % частки відновлюваних джерел енергії в електроенергетиці, впровадження Францією програми скорочення частки ядерної енергетики до 50 %, реалізація Швецією стратегії повного переходу на відновлювані джерела енергії до 2040 року, досягнення Данією показника генерації понад 50 % електроенергії з вітру та сонця, та впровадження Польщею програми диверсифікації енергетичного балансу із планом збільшення частки відновлюваних джерел енергії до 23 % до 2030 року. На основі європейських практик розроблено комплексні пропозиції щодо вдосконалення законодавства України: доповнення до Закону «Про правовий режим воєнного стану», створення спеціального Закону «Про енергетичну безпеку», формування єдиного координаційного центру при Раді національної безпеки та оборони України та впровадження механізмів стимулювання відновлюваної енергетики через систему «зелених» тарифів і спрощених адміністративних процедур. Результати дослідження створюють теоретичне та практичне підґрунтя для вдосконалення державної політики у сфері енергетичної безпеки та охорони довкілля в умовах воєнного стану та післявоєнної відбудови України

Ключові слова: відновлювана енергетика; екологічні стандарти; координаційний центр; зелені тарифи; Європейська інтеграція



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Administrative and legal regulation and the challenge of ensuring compliance with environmental standards in the production and circulation of excise goods

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Abstract

This study aimed to examine the regulatory mechanisms governing the circulation of excise goods in Ukraine in order to identify ways of optimising these mechanisms and enhancing their effectiveness. A comprehensive analysis of the current Ukrainian regulatory framework, statistical data, and international practices in the regulation of excise goods was conducted using formal-legal, statistical, and comparative methods. The research identified key issues in the administrative and legal regulation of excise goods. In particular, it was found that the existing regulatory mechanisms insufficiently account for environmental requirements, contributing to negative environmental impacts and increasing ecological risks. The analysis of regulatory provisions revealed a lack of clear environmental assessment criteria for producers of excise goods, as well as inadequate oversight of the disposal of industrial waste. Furthermore, the study highlighted the limited alignment of Ukrainian legislation with European standards, particularly regarding the digitalisation of control over the production and circulation of

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excise goods. Additionally, it was established that the current mechanisms of administrative oversight – such as inspections and control measures – lack sufficient transparency, creating conditions conducive to corruption. Statistical analysis revealed that the share of illicit trade in tobacco products increased from 2% in 2017 to 17.8% in 2022, while the number of convictions declined threefold. Drawing on international experience, particularly the practices of Germany, France, Italy and the Netherlands, several solutions have been proposed. These include the introduction of electronic excise stamps, the development of automated systems for accounting and monitoring the circulation of excise goods, enhanced customs controls at borders, and the establishment of public registers of licensees. It is also recommended that regulatory acts be improved by adapting European approaches to Ukrainian conditions, which would contribute to reducing the shadow economy and increasing tax revenues. The findings highlight the need for systemic reform in the regulation of the excise sector and the development of an effective model of administrative oversight that aligns with international standards

Keywords: sustainable development; state control; shadow market; waste disposal; monitoring digitalisation; European standards

Introduction

The growing share of the shadow market for excise goods – such as alcoholic beverages and tobacco products – combined with the challenges of economic instability in Ukraine, underscores the need for enhanced control in this sector. In the context of Ukraine's European integration and the implementation of the European Green Deal, environmental standards for the production of excise goods are becoming increasingly stringent. This entails the introduction of stricter environmental requirements for production processes, the modernisation of manufacturing, and the reduction of environmental impact. Particular attention must be given to reducing pollutant emissions, adopting energy-efficient technologies, managing production waste, and using environmentally safe packaging. Therefore, to ensure financial stability, protect consumer rights, and meet environmental standards, it is necessary to improve administrative procedures and implement modern technologies for tracking and accounting goods.

However, in the process of improving the administrative and legal regulation of excise goods, certain issues require further examination.

Foremost among these is the mismatch between the current regulatory framework and present-day conditions. M. Boiță *et al.* (2022), in their study of regulatory mechanisms concerning excise goods, also highlighted this issue. In particular, the authors emphasise the need for clearer differentiation between offences and administrative sanctions, as well as gaps in regulatory provisions that facilitate violations.

The study by Y. Yuswanto *et al.* (2022) examined the application of customs and excise regulations, highlighting the difficulties associated with enforcing Indonesia's current legislation in relation to the import of goods via electronic platforms. Similarly, K. Ochocki (2020), in analysing the capacity of excise taxation to address market failures in Poland, pointed to shortcomings in adapting excise regulations to modern realities – particularly in response to the rapid development of digital technologies and international trade. Of particular relevance is the research conducted by S. Shadikhodjaev (2024), which explores the relationship between environmental standards and international trade. The author emphasises that

the implementation of environmental standards in the production of excise goods – especially in the energy sector – often faces challenges due to the lack of a harmonised approach to environmental regulation across jurisdictions. S. Shadikhodjaev (2024) stresses the importance of balancing trade interests with environmental requirements, especially in the context of international commitments to reduce greenhouse gas emissions and promote environmentally sustainable production technologies. Despite the valuable insights offered by these studies, certain issues remain unaddressed. These include the harmonisation of excise legislation with global standards, the introduction of digital tools for monitoring e-commerce, and the specific regulatory challenges related to transnational transactions involving excise goods.

Another pressing issue is the excessive complexity and bureaucratic nature of the licensing mechanisms for the production and sale of excise goods. Licensing procedures often involve an excessive number of requirements, which are not always aligned with the realities of the modern market. This conclusion is also reflected in the study by L. Panggabean (2024), who analysed revenue generation mechanisms from excise duties on tobacco products and ethyl alcohol. The author highlighted that the overly complex licensing procedures result in reduced tax revenues, as many economic operators are unable to meet the stringent requirements. Attention should also be given to the impact of corruption risks on licensing processes, which warrants further investigation.

The insufficient level of automation in the regulation of excise goods circulation represents another significant barrier to effective oversight. The absence of integrated electronic systems to automate inspections, reporting, and data analysis slows down control procedures and increases the risk of errors. In his study, M. Oordt (2023) also emphasised the importance of automating the monitoring and accounting of excise goods,

stressing that the lack of integrated electronic systems significantly reduces the efficiency of excise administration and creates additional opportunities for tax evasion. K. Firmantoro (2022), in turn, analyses cases of negligence by customs and excise authorities in the enforcement of court decisions, noting that the insufficient level of digitalisation in inspections leads to delays in implementation and causes economic losses to both the state and businesses. The study by J. Zubović *et al.* (2024) is also noteworthy, as it examines the impact of excise taxation on income distribution. The authors point out that the absence of automated mechanisms for monitoring excise payments exacerbates inequalities in market access and increases the burden on legitimate producers. L. Wati *et al.* (2024) explore the relationship between tobacco company classification, environmental uncertainty, and risk management in the context of excise taxation. Their findings show that the lack of automated monitoring systems complicates not only the oversight of excise compliance but also the tracking of adherence to environmental production standards. Despite the significance of these findings, certain aspects remain insufficiently explored – particularly the implementation of modern technologies to ensure transparency and continuity in the accounting of excise goods, as well as the integration of automated systems across various state regulatory bodies.

Another notable issue is the weak alignment with international standards in the regulation of excise goods. The low level of integration with international instruments limits the potential for adopting established practices and modern technologies. In this context, Z. Zhelev (2020) highlighted the importance of harmonising excise legislation with European standards, noting that inadequate adaptation hampers the implementation of effective regulatory and control mechanisms. Additionally, B. Munga *et al.* (2022) found that insufficient application of international

standards in the automation of management systems reduces their effectiveness, particularly due to difficulties in tracking transnational transactions and integrating with global databases.

P. Van Vaerenbergh (2023), in exploring the relationship between low environmental standards and subsidy rules in international trade, emphasised that non-compliance of national production standards with international environmental requirements creates not only environmental risks but also trade barriers. The author stresses the need to harmonise environmental production standards for excise goods to ensure fair conditions in international trade and adherence to global environmental commitments. Nevertheless, certain aspects remain underexplored – particularly the harmonisation of digital technologies with international standards and the development of unified mechanisms for cross-border data exchange aimed at improving the regulation of excise goods circulation.

An analysis of existing studies has revealed a range of unresolved issues in the regulation of the excise goods market. Therefore, the present research aimed to identify the main problems related to the administration of excise goods circulation, including shortcomings in the enforcement of environmental standards, and to develop recommendations for improving existing mechanisms in line with environmental safety requirements and international best practices. The key objectives of the study included:

- analysing the current legal and regulatory framework governing the circulation of excise goods, and identifying its shortcomings, particularly in the area of environmental safety;
- identifying challenges associated with the implementation of modern digital technologies in processes of control, monitoring, reporting, and environmental impact assessment;
- examining the experience of European Union (EU) member states in this field.

Materials and Methods

To analyse the current legal and regulatory framework governing the circulation of excise goods, the formal legal method was employed. This approach involves the examination of legal provisions in their textual form to determine their content, logic, structure, and interrelations. In particular, the analysis covered the Criminal Code of Ukraine (2001), the Tax Code of Ukraine (2010), the Resolution of the Cabinet of Ministers of Ukraine No. 408-2019-п (2019), and the Laws of Ukraine Nos. 1264-XII (1991), 2707-XII (1992), 265/95-BP (1995), 2899-IV (2005), 675-VIII (2015), 222VIII (2017), 1019-IX (2020), 2320-IX (2022), 3173-IX (2023), and 3817-IX (2024). The analysis focused on provisions regulating the obligations of business entities regarding licensing, income declaration, excise payment, and compliance with environmental standards. Particular attention was given to regulations concerning the disposal of production waste, reduction of harmful emissions, and the adoption of environmentally friendly technologies. Special consideration was also given to the regulation of excise goods circulated through online platforms, with an emphasis on the absence of specific provisions addressing the characteristics of e-commerce, such as seller and buyer identification, transaction monitoring, and digital product tracking.

To substantiate the implementation of modern digital technologies in control, monitoring, reporting, and environmental accounting processes, the statistical method was applied. This approach enables the examination of quantitative indicators reflecting the effectiveness of existing mechanisms and assesses their alignment with current requirements. Using this method, statistical data from the Kantar Ukraine agency were analysed, including the share of illicit tobacco trade from 2017 to 2022, as well as the number of convictions related to the illegal production, storage,

sale, or transportation for the purpose of sale of excise goods over the same period (Economichna Pravda, 2023).

The comparative method was employed to examine the experience of EU countries in regulating the circulation of excise goods, allowing for the comparison of approaches to the implementation of control and monitoring mechanisms across jurisdictions. Particular attention was given to Germany, France, Italy, and the Netherlands, which demonstrate a high level of effectiveness in combating the illicit trade in excise products. Relevant legal acts analysed included the Energy Tax Act of Federal Republic of Germany (2006), the Tobacco Tax Act of Federal Republic of Germany (2009), the Beer Tax Act of Federal Republic of Germany (2009), the General Tax Code of France (1950), the Decree of the President of the Italian Republic No. 504 (1995), and the Law of Netherlands "On Excise Duty" (1991). The comparison focused on the impact of harmonised excise rates and the introduction of automated reporting systems, as well as their role in reducing the shadow market.

Results

Excise goods are specific categories of products subject to special excise taxation due to their significant social relevance and their impact on public health, the environment, and the national economy. These typically include alcoholic beverages, tobacco products, fuel, electronic cigarettes, and certain other goods defined by national legislation, depending on a country's policy priorities. Excise taxation serves not only as a means of generating revenue but also as a regulatory tool aimed at reducing the consumption of socially harmful products and encouraging the use of more environmentally friendly alternatives (Ferreira, 2021). In addition, excise duties play a key role in curbing the illicit trade, fostering fair competition, and protecting consumers from counterfeit goods.

The primary legislative act governing the circulation and production of excise goods in Ukraine is the Tax Code of Ukraine (2010), particularly Section VI, which deals with excise taxation. Article 215 of the Code outlines the list of excisable goods and sets out the basic principles for their taxation. According to Paragraph 215.1 of Article 215, excisable goods include ethyl alcohol, alcoholic beverages, tobacco products, liquids for electronic cigarettes, fuel, vehicles, and electricity. Analysis of Paragraph 215.2 of the same article, which regulates excise tax rates for these goods, indicates the imposition of relatively high rates on certain categories, particularly alcoholic beverages, tobacco products, and fuel. These elevated excise rates significantly affect the final retail price, potentially reducing the competitiveness of such goods in the domestic market and encouraging the growth of illicit trade. Rather than further increasing excise rates, it would be more appropriate to focus on broadening the list of excisable goods to include luxury items such as high-end vehicles, jewellery, and other expensive products. This approach would help to reduce the tax burden on the mass market, maintain the affordability of excise goods for consumers, increase budget revenues, and promote greater social equity by shifting the tax load towards wealthier segments of the population.

It is worth noting that Section VIII of the Tax Code of Ukraine (2010) is dedicated to the regulation of the environmental tax, defined as a nationwide mandatory payment levied on actual volumes of pollutant emissions into the atmosphere, discharges into water bodies, waste disposal, and radioactive waste volumes. The taxation system applies differentiated rates depending on the source of pollution, allowing for the consideration of varying levels of environmental impact. However, the effectiveness of the environmental tax as a regulatory tool remains limited due to the relatively low rates, which often fail to incentivise

enterprises to significantly reduce emissions or invest in environmentally friendly technologies. Moreover, the lack of clear integration between the environmental tax and modern digital monitoring systems creates a risk of underestimating actual pollution levels. This highlights the need to raise tax rates to levels that more accurately reflect the costs of ecosystem restoration, as well as to implement digital solutions to enhance the transparency and efficiency of environmental tax administration.

Article 232 of the Tax Code of Ukraine (2010) regulates the operation of the Electronic Fuel Sales Administration System (EFSA), which serves as a key instrument for monitoring the circulation of fuel. An analysis of the Procedure for the Electronic Administration of Fuel and Ethanol Sales (the Procedure), approved by Resolution of the Cabinet of Ministers of Ukraine No. 408-2019-п (2019), makes it possible to identify the main advantages and shortcomings of EFSA's operation. The Procedure outlines detailed rules for recording the volumes of fuel and ethanol by excise warehouse, including the automation of volume accounting via customs declarations, distribution of fuel among excise warehouses, and the ability to monitor stock levels based on taxpayers' requests. However, it should be noted that EFSA is not integrated with other digital platforms, such as customs and tax databases, which limits the potential for comprehensive monitoring. Additionally, Paragraph 47 of the Procedure establishes accounting standards, for example, allowing up to 1% discrepancies in fuel volumes for retail trade, but does not provide mechanisms for verifying these figures against actual data at local sites. Overall, the Procedure lays out the fundamental rules for EFSA's operation but requires improvement, particularly in terms of integration with other systems and the implementation of stricter monitoring and verification mechanisms.

It is also important to highlight the Law of Ukraine No. 3173-IX (2023), which introduces an electronic excise stamp and establishes the Electronic System for the Circulation of Excise Goods. This system is designed to enable tracking of such goods from the producer or importer to the final consumer. However, the introduction of a tax promissory note for the import of alcoholic beverages, as outlined in Paragraph 13 of the Law, may impose an additional administrative burden on businesses, particularly small and medium-sized enterprises.

The Law of Ukraine No. 222-VIII "On Licensing of Economic Activities" (2015), specifically Article 7, sets out the list of economic activities subject to licensing. These include the production, storage, and sale of excise goods such as alcoholic beverages, tobacco products, e-cigarette liquids, and fuel. The procedure for obtaining a licence is regulated by Articles 8-15 of this Law. However, the licensing process is also governed by another legal act, namely Section VII of the Law of Ukraine No. 3817-IX (2024). This law defines the key requirements for the licensing of the production, storage, and sale of the aforementioned goods, as well as the mechanisms for monitoring their circulation. According to Article 43 of the Law, licensing is carried out on the basis of submitting a substantial number of documents to the State Tax Service of Ukraine. These include founding documents, certificates on the technical condition of equipment, financial reports, certificates of conformity, and others. This procedure is excessively complex, time-consuming, and not always transparent, which creates additional barriers for legitimate economic operators, particularly small and medium-sized enterprises. The absence of digitalised applications and tracking processes via electronic systems further complicates interactions between entrepreneurs and public authorities, increases time costs, and heightens the risk of corruption.

In addition, Article 6 of the Law of Ukraine No. 3817-IX (2024) regulates the operation of excise warehouses. However, the lack of integrated digital platforms for automated product accounting results in gaps in the monitoring of production and movement. Specifically, the law does not account for the potential application of modern technologies, such as blockchain, to ensure transparent accounting and tracking of excise goods. The absence of such mechanisms hinders the detection of excise tax evasion and illegal circulation, especially in a cross-border context.

It is also important to highlight the Law of Ukraine No. 1019-IX (2020), which represents a significant step forward in the regulation of new types of tobacco products. The law introduced mandatory excise labelling for heated tobacco devices and liquids for electronic cigarettes, established rules for their production, importation, and sale, and strengthened administrative liability for violations. These measures include increased fines and the potential revocation of licences.

In addition, the provisions of the Law of Ukraine No. 2899-IV "On Measures to Prevent and Reduce the Use of Tobacco Products and Their Harmful Effects on Public Health" (2005) are of particular relevance. Article 16 of this law sets out a broad range of prohibitions aimed at limiting commercial influence, such as bans on marketing campaigns, promotional events, sponsorship, and the use of associative imagery that could encourage sales or create a favourable image of tobacco brands. Similar restrictions apply to heated tobacco devices and electronic cigarettes (Articles 16-1 and 16-2), including bans on advertising, free distribution, sales bundled with other goods, and other forms of commercial promotion.

In the context of regulating the circulation of excisable goods, the provisions of the Law of Ukraine No. 265/95-BP (1995) and the Law of Ukraine No. 675-VIII (2015) are also of considerable importance. Article 7 of the Law of Ukraine

No. 675-VIII (2015) requires sellers to provide consumers with comprehensive information about goods, including product characteristics, payment and delivery terms, and to ensure that contracts are concluded in electronic form with appropriate confirmation. For excisable goods such as alcoholic beverages and tobacco products, this provision is particularly significant, as it promotes transparency in sales conditions and minimises the risk of consumer deception. However, the law does not establish mandatory mechanisms for age verification, which creates a regulatory gap concerning the sale of goods prohibited to minors. The absence of such requirements makes it impossible to effectively control compliance with rules prohibiting the sale of excise goods to certain categories of people, particularly through online trade, where the risk of non-compliance significantly increases. This highlights the need to improve legislation by introducing compulsory age verification for purchasers via digital services or other reliable methods.

Article 3 of the Law of Ukraine No. 265/95-BP (1995) obliges business entities conducting cash transactions to use cash registers, allowing tax authorities to monitor each transaction in real time. However, this law does not include specific requirements for the mandatory integration of cash registers with e-commerce platforms, which hinders effective oversight of online transactions.

Particular attention in the regulation of the production and circulation of excisable goods should be given to the environmental aspects set out in the Law of Ukraine No. 1264-XII "On Environmental Protection" (1991). This law establishes the general principles of Ukraine's environmental policy, which are directly relevant to the regulation of businesses involved in the production or sale of excisable goods. Article 22 of the law outlines the foundations of the national environmental monitoring system, which is responsible for collecting, processing, storing, and

analysing information on the state of the environment. A key requirement of this Article is the obligation for enterprises whose activities may negatively impact the environment to submit analytical data from their observations to the relevant public authorities free of charge. This provision is directly applicable to enterprises engaged in the production or distribution of excisable goods such as fuel, alcoholic beverages, or tobacco products. These businesses often place an additional burden on the environment through the emission of harmful substances, the generation of waste, or the use of natural resources in their production processes. The obligation to submit monitoring results provides a foundation for ensuring compliance with environmental standards by business entities. A notable aspect of Article 22 is its emphasis on integration with scientific institutions to enable both short-term and long-term forecasting of environmental changes. This approach may support the development of programmes aimed at reducing the negative environmental impact of excisable goods production. For instance, monitoring results could inform the adoption of technologies designed to reduce CO₂ emissions during fuel production or guide the management of waste generated in the manufacture of tobacco products. However, Article 22 does not specify how the monitoring data should be incorporated into government programmes or taken into account in the implementation of economic and social measures. This lack of detail creates a gap in the practical application of the data, limiting its potential to enhance the environmental responsibility of businesses.

Challenges related to compliance with environmental standards in the production and distribution of excisable goods are also evident in other legislative acts. In particular, Article 17 of the Law of Ukraine No. 2320-IX (2022) obliges enterprises to carry out waste processing operations. This requirement is especially relevant for enterprises

involved in the production of excisable goods, such as fuel and tobacco products, as their operations may generate substantial volumes of waste. The disposal of such waste requires adherence to high environmental standards; however, the absence of transparent monitoring and enforcement mechanisms by public authorities makes it difficult to assess the actual environmental impact of these enterprises. This highlights the need to improve oversight systems, particularly through the digitalisation of reporting processes and the integration of environmental requirements into the broader regulatory framework.

Article 10 of the Law of Ukraine No. 2707-XII (1992) outlines the obligations of business entities that emit pollutants to comply with environmental safety standards and implement measures to reduce emissions and the impact of physical factors. These requirements include maintaining emission treatment facilities and equipment in working order, monitoring the volume and composition of pollutants, developing contingency measures for emergency situations, and paying the environmental tax. Particular attention is given to the need for developing measurement methodologies, equipping sampling points for assessing gas-dust flow parameters and adhering to maximum permissible emission standards. However, despite the detailed provisions, the absence of sector-specific standards that reflect the particularities of excisable goods production, along with limited opportunities for automated monitoring, poses challenges to the effective implementation of the measures stipulated in Article 10. This underscores the need to improve the regulatory framework and strengthen mechanisms for monitoring compliance with environmental standards.

Thus, the administrative regulation of excisable goods circulation in Ukraine faces a range of challenges that limit its effectiveness. Despite the introduction of electronic administration and

excise monitoring systems, the lack of integration between various digital platforms – such as customs, tax databases, and e-commerce systems – hinders comprehensive control over the movement of these goods. The limited digitalisation of licensing procedures, alongside their complexity and duration, as well as insufficient automated accounting capabilities, contributes to bureaucratization and creates barriers for legitimate businesses. Moreover, the absence of specialised sector-specific standards tailored to the operations of excise goods producers complicates compliance with environmental requirements established by law and results in inadequate control over waste disposal. Low environmental tax rates reduce the tax's incentivising function, failing to significantly lower the environmental burden, while the lack of automated monitoring of pollution volumes undermines its administrative efficiency. Additionally, the absence of clear requirements for age

verification in the online sale of excisable goods and weak control over cross-border transactions increases the risk of illicit trade. Overall, these issues highlight the need to modernise the legislative framework, digitalise administrative procedures, develop industry-specific environmental standards, and enhance automated monitoring of excisable goods circulation. Such measures would promote transparency, fair competition, compliance with environmental standards, and increased revenue for the state budget.

An analysis of statistical data has revealed a serious problem concerning the growth of the shadow market for excisable goods in Ukraine, resulting in significant losses to the state budget. According to Kantar Ukraine (Economichna Pravda, 2023), the share of illicit trade in tobacco products increased from over 2% in 2017 to 17.8% in 2022, making it one of the highest rates in Europe (Fig. 1).

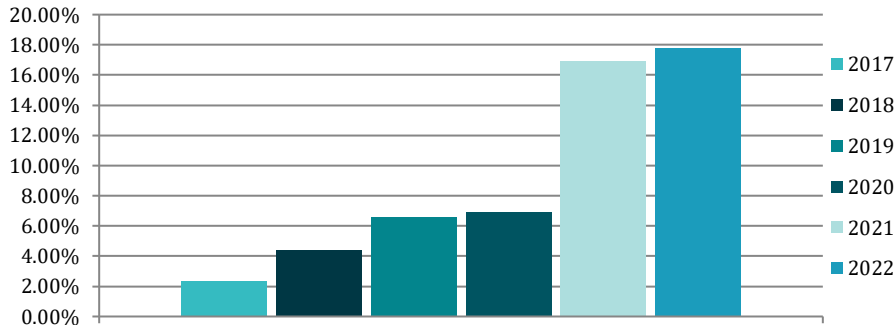


Figure 1. Share of illicit tobacco trade in Ukraine according to Kantar Ukraine

Source: Economichna Pravda (2023)

This rise indicates the widespread circulation of counterfeit and smuggled products entering the market without being subject to tax regulation. Counterfeit goods are produced without adherence to established standards and without payment of excise duty, which not only reduces budget revenues but also creates unfair competition for legitimate businesses. Smuggled

products, which illegally cross borders, often bypass customs controls due to gaps in the monitoring system, including insufficient automation of inspection processes and the lack of effective data exchange with customs authorities of other countries. As a result, the state loses considerable amounts in potential tax revenue each year – funds that could otherwise be allocated to social

programmes and infrastructure development. Beyond financial losses, counterfeit goods pose risks to public health due to the absence of quality control, as such products may contain harmful additives or toxic substances.

Particular attention should be paid to the sharp decline in the number of convictions under Article 204 of the Criminal Code of Ukraine (2001), which establishes liability for the illegal production, storage, sale or transportation of excisable goods (Fig. 2). In 2022, the number of convictions under Article 204 fell to just 100 – three times lower than in previous years. This reflects a significant decline in the effectiveness of law enforcement efforts to combat the illicit trade in excisable goods. One of the main contributing factors is the objective difficulty caused by ongoing military actions, which have limited the capacity to carry out inspections, confiscations, and investigations. At the same time, the lack of modern monitoring tools, such as digital platforms for tracking the circulation of excisable products,

poses additional challenges to detecting violations. This issue is particularly pressing in the context of online sales, which have become one of the primary channels for distributing illegal goods. The lack of clear regulatory requirements regarding seller identification, digital inventory tracking, and transaction monitoring enables unscrupulous businesses to evade responsibility and avoid paying excise duties. As a result, illicit trade via the Internet not only harms the state budget but also facilitates the distribution of counterfeit products that may pose risks to consumers (Fatiha & Nassima, 2024). To address this issue, it is necessary to improve legislation on e-commerce involving excisable goods, implement integrated digital monitoring platforms, and enhance coordination among law enforcement agencies. Thus, the analysis of statistical data highlights the urgency of tackling the illegal circulation of excisable goods, which results in substantial losses to the state budget and poses risks to legitimate businesses and consumers alike.

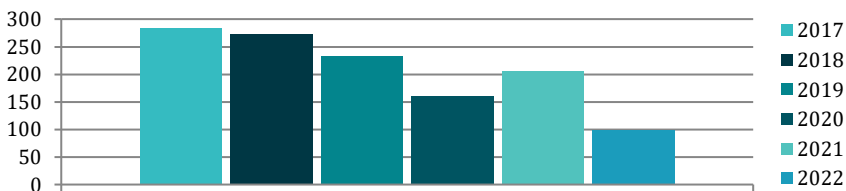


Figure 2. Number of convictions under Article 204 of the Criminal Code of Ukraine, according to data from Kantar Ukraine

Source: *Economichna Pravda* (2023)

To develop recommendations for improving the regulation of excisable goods circulation in Ukraine, an analysis was conducted of practices in European Union countries that have successfully implemented modern control and monitoring mechanisms in this area. In Germany, the regulation of excisable goods is governed by national legislation, including the Energy Tax Act of Federal Republic of Germany (2006), the Tobacco Tax Act of Federal Republic of Germany (2009), and

the Beer Tax Act of Federal Republic of Germany (2009). Germany actively participates in the EU-wide regulatory system for excisable goods, particularly through the implementation of the Excise Movement and Control System (EMCS) – an electronic system for monitoring the movement and circulation of excisable goods under a deferred excise duty payment regime. This system is based on the use of the electronic administrative document (e-AD), which enables real-time

tracking of product movement, producers, suppliers, and end users. The EMCS ensures transparency in the circulation of excisable goods, minimises opportunities for tax evasion, and supports efforts to combat the illicit market. All entities involved in the supply chain are required to register within the system, ensuring reliable tracking of products (Adams & Effertz, 2010). In addition, Germany has introduced strict licensing regulations for the production and sale of excisable goods, as outlined in national legislation and in the Directive of the European Parliament and of the Council No. 2014/40/EU (2014). Excise duties represent a significant source of state revenue, and their administration is continuously improved through digitalisation.

Germany places strong emphasis on a comprehensive approach to tackling the illicit circulation of excisable goods – particularly tobacco products – through the implementation of the Track & Trace system. This system enables the tracking of the entire supply chain using unique codes, which significantly reduces the risk of counterfeiting (Manthey *et al.*, 2024). Moreover, considerable attention is given to regulating online sales of excisable goods, where clear certification rules are enforced, compliance with legal requirements is mandatory, and sellers are held accountable for observing tax regulations.

In France, the regulation of excisable goods is based on the provisions of the General Tax Code of France (1950), which covers excise duties on alcoholic beverages, tobacco products, energy products, and other categories of excisable goods. A key element of the regulatory framework is the integration of the European Parliament and of the Council No. 2014/40/EU (2014), which governs the labelling, registration, and tracking of tobacco products.

The distinctiveness of the French approach lies in its strict oversight of distribution and its specific taxation policy, which aims not only to generate revenue but also to achieve social and

environmental objectives. France has actively implemented the Track & Trace system for tobacco products, with a particular focus on social policy: a substantial share of excise duty revenue is allocated to healthcare funding and anti-smoking programmes. A notable feature of the French system is that excise revenues from tobacco products are partly used to offset the costs of the national health insurance system (Sardjono *et al.*, 2023). In addition, France maintains one of the strictest regulatory regimes for advertising excisable goods in the world. For instance, all tobacco advertising is completely prohibited, while alcohol advertising is subject to significant restrictions, including mandatory health warnings. Online sales are also tightly regulated: vendors are required to obtain a special licence, and buyers must undergo identification procedures, including age verification.

In the field of alcohol excise duties, France employs a graduated approach, whereby tax rates vary according to the strength and category of the beverage. To encourage the consumption of wine – a traditional national product – taxes on it remain comparatively low, whereas high excise rates are imposed on stronger alcoholic drinks. France's integration of environmental excise duties into the broader tax system is a key element of its national policy to combat climate change. This approach is based on the principle of encouraging both producers and consumers to adopt environmentally friendly practices through economic incentives. For example, fuel excise duties are determined not only by the type of fuel but also by the level of CO₂ emissions generated during its use. This means that carbon-intensive fuels (such as diesel or petrol) are taxed at higher excise rates than alternatives like bioethanol or electricity. To ensure the transparency and effectiveness of this system, the French government has introduced a clear methodology for calculating excise duties, which takes into account the carbon footprint of a product. For instance, each unit of fuel is labelled

with a CO₂ intensity rating, which is then used to determine the applicable tax rate. This encourages manufacturers to invest in technologies that reduce greenhouse gas emissions and support the transition to renewable energy sources. In addition, France actively supports the Green Certificates programme, which allows producers of low-emission products to receive tax incentives. This system not only helps reduce environmental impact but also creates a competitive advantage for companies that adopt innovative and environmentally sustainable technologies (Haar, 2024). Thus, the French system for regulating excisable goods is characterised by its comprehensive nature, emphasis on social and environmental outcomes, and a high level of regulatory oversight, offering a model that could inform the development of similar policies in other countries.

Italy's approach to regulating the circulation of excisable goods is notable for its focus on digitalisation, combating counterfeiting, and accommodating national economic specificities. The primary legislative framework is set out in the Decree of the President of the Italian Republic No. 504 (1995), which governs the taxation of alcoholic beverages, tobacco products and energy sources. A distinctive feature of the Italian system is the use of blockchain technology to monitor the circulation of excisable goods – particularly wine, which is a strategic national product. Blockchain ensures full traceability from vineyard to consumer, thereby minimising the risk of counterfeiting and supporting the international reputation of Italian brands (Sabbagh *et al.*, 2024).

Another important feature of Italy's approach is the adaptation of excise duties to support local production. For instance, small wineries and craft breweries benefit from reduced excise rates, which encourage the development of small businesses and the preservation of traditional production methods. Italy also maintains a well-developed system for combating the illicit

market, utilising specialised mobile units of the Financial Police that carry out on-the-spot inspections and confiscate illegal goods. Particular attention is paid to the taxation of tobacco products. In addition to traditional cigarettes, excise duties also apply to e-cigarette liquids and heated tobacco devices (Peeters & Gilmore, 2012). The state monopoly on excise stamp production, along with an electronic accounting system, reduces opportunities for counterfeiting. Italy is also one of the leading countries in integrating environmental considerations into excise policy. For example, fuel excise duties are differentiated based on CO₂ emissions, incentivising the use of alternative fuels such as bioethanol. The country is actively implementing financial incentive programmes for companies investing in the production of environmentally friendly fuels or upgrading their manufacturing processes to reduce CO₂ emissions. These incentives include tax relief, subsidies for the adoption of innovative technologies, and access to dedicated environmental funds. Collectively, these measures enable Italy not only to effectively generate budget revenue but also to support key economic sectors, combat the shadow market, and protect consumers.

The Netherlands' approach to regulating the circulation of excise goods is characterised by a high level of digitalisation, international integration, and a strong focus on the environmental aspects of taxation. The primary legislative act governing this area is the Law of the Netherlands on Excise Duty (1991), which sets out the rules for taxing alcohol, tobacco products, and energy goods. The Netherlands is one of the leading countries in adopting digital systems to monitor and administer the circulation of excise goods. A notable example is the implementation of the automated Excise Movement and Control System (EMCS), used to track the movement of goods under deferred excise payment arrangements. This system is integrated with customs and tax

platforms, enabling real-time data exchange. A distinctive feature of the Dutch model is its active engagement in international data exchange. Through cooperation with customs authorities in neighbouring countries, the Netherlands effectively minimises the risks of excise goods smuggling (Koshchuk *et al.*, 2024). Online sales of excise goods are also strictly regulated. Legislation requires compulsory seller registration, buyer identification, and the licensing of all platforms engaged in the sale of excise products. These measures reduce the risk of tax evasion and limit underage access to such goods. Strict penalties for violations of excise regulations and the high efficiency of oversight by fiscal authorities have significantly reduced the size of the illicit market in the Netherlands (Subagiyo *et al.*, 2020). As a result, excise duties represent a substantial source

of government revenue, while also supporting environmental and social policy objectives.

Thus, international experience demonstrates that digitalisation, the integration of modern technologies, strict regulatory oversight, and alignment with international standards significantly enhance the effectiveness of excise goods regulation. The successful cases of Germany, France, Italy, and the Netherlands illustrate a reduction in the illicit market, increased tax revenues, and the promotion of environmentally friendly alternatives through the implementation of Track & Trace systems, blockchain technology, and the regulation of online sales. Based on an analysis of EU member states' experience, the following recommendations are proposed to improve the regulation of excise goods circulation in Ukraine (Table 1).

Table 1. Recommendations for improving the regulation of excise goods in Ukraine

Recommendations	Description of measures	Expected outcomes
Implementation of a Track & Trace system	A Track & Trace system enables the monitoring of each product unit through unique identification codes. Ukraine should develop an integrated electronic platform and ensure the necessary infrastructure for code scanning. Excise revenues could serve as a funding source	Greater market transparency, increased tax revenues, and a reduction in counterfeit products
Integration of environmental standards into excise regulation	Setting excise duties on excise goods per their environmental impact, for example, fuel excise rates based on CO ₂ emissions or alcohol duties linked to production waste volumes. A portion of the revenue is allocated to environmental projects	Encouragement of environmentally sustainable excise goods production; reduction of carbon footprint; creation of competitive advantages for businesses adopting clean technologies; increased funding for environmental initiatives
Digitalisation of monitoring and reporting	Digitalisation facilitates the automation of data recording and analysis related to the production and movement of excise goods. It is necessary to develop an integrated platform, introduce a system for automatic data reconciliation, and digitise existing paper-based procedures	Reduced risk of smuggling, improved control efficiency, greater transparency in circulation, and prompt identification of violations
Regulation of online sales of excise goods	Online sales require the registration of sellers, mandatory customer identification via electronic tools, and monitoring of platform activities. To ensure proper control, specialised units should be established within the tax authority	Reduction of the illicit online market, prevention of access to excise goods by minors, and increased tax revenue
Support for small businesses and traditional industries	The introduction of reduced excise rates for small producers would ease the financial burden and enhance competitiveness. Simplified licensing procedures and government support mechanisms should be developed	Stimulation of regional economic activity, preservation of traditional industries, job creation, and increased competitiveness of small enterprises

Source: compiled by the author

The Track & Trace system is an effective tool for ensuring transparency in the circulation of excise goods, enabling the tracking of each individual unit through unique markings at every stage of its distribution – from the producer to the end consumer. In Ukraine, it is necessary to develop an integrated electronic platform that consolidates databases from customs authorities, tax bodies, producers, and retailers. This platform should support real-time data processing, allowing regulatory bodies to promptly monitor the movement of goods. A key element in the implementation of the system is the development of infrastructure for reading these markings, including mobile applications for consumers to verify product legitimacy and fixed scanners for use at customs checkpoints and points of sale. Excise duties could serve as an important source of funding, with a portion allocated to support the system's operation. For Ukraine, the Track & Trace system should become not only a tool to combat counterfeit products but also a critical mechanism for increasing tax revenue, improving market transparency, and strengthening consumer confidence in product quality. Successful implementation would lay the foundation for aligning Ukrainian legislation with European standards and enhancing the competitiveness of legitimate businesses.

In addition to the existing environmental tax, Ukraine should consider integrating ecological excise duties into the broader taxation system for excisable goods, drawing on the experience of France and Italy. For instance, fuel excise duties could be differentiated according to CO₂ emission levels, while alcohol excise duties could reflect the volume of production waste and the energy efficiency of manufacturing processes. This approach would provide additional incentives for producers to invest in environmentally friendly technologies. As a result, enterprises that adopt cleaner production methods would gain a competitive advantage through reduced tax burdens. A portion

of the revenue generated from such excise duties could be allocated to environmental protection programmes, enterprise modernisation, and the development of low-impact technologies.

The digitalisation of monitoring and reporting in Ukraine is a key step towards enhancing transparency in the circulation of excisable goods and improving the effectiveness of state oversight. The experience of EU countries in implementing the Excise Movement and Control System (EMCS) demonstrates that automation enables real-time tracking of excisable goods, significantly reducing the risks of smuggling and tax evasion. A similar system in Ukraine should incorporate several key components. Firstly, it is essential to establish a unified, integrated platform that consolidates data from various sources, including customs, tax authorities, manufacturers, distributors, and retailers. This platform should operate in real time, enabling regulatory bodies to promptly analyse information on the production, movement, and sale of excisable goods. To ensure its effectiveness, existing paper-based processes must be digitised and converted into a digital format. Secondly, an automatic data reconciliation system should be introduced. This system would verify business reports against actual recorded data. For example, if a manufacturer reports a certain volume of production, the system would automatically compare this with the volumes declared during transport and those registered at customs. Such reconciliation would help detect discrepancies and flag potential violations.

Online sales of excisable goods represent one of the weakest links in the system of state regulation, as this market segment often remains inadequately controlled. The example of the Netherlands demonstrates that strict licensing of sellers, mandatory buyer identification, and the development of specialised platforms for online trade significantly reduce the risk of illicit sales of excisable products, particularly to minors. For

Ukraine, the primary task is to establish a unified registration system for platforms engaged in the online sale of excisable goods. This could be implemented through mandatory registration of sellers in a dedicated state register, allowing all market participants to be monitored. Registered platforms should be required to meet specific standards, including integration with state tax systems to enable the automatic recording of transactions. A second key step involves the introduction of compulsory buyer identification. This could be achieved using modern digital tools such as electronic signatures, bank card verification, or the Diia system. Such measures would not only prevent minors from accessing excisable goods but also ensure greater transparency in taxation. A third essential element is the enforcement of legislation. Specialised units should be established within the State Tax Service to monitor online platforms for compliance with regulations governing the sale of excisable products. These units would be responsible for verifying sellers' licences, assessing whether their activities align with declared conditions, and responding to consumer complaints.

The introduction of reduced excise duty rates for small-scale producers of excisable goods could play a significant role in supporting small businesses and promoting the development of traditional industries in Ukraine. Italy's experience shows that such incentives not only stimulate economic activity in rural areas but also help preserve national production traditions, such as winemaking and craft brewing. In the Ukrainian context, this is particularly relevant, as small enterprises are often key employers in rural communities, and winemaking – especially in the Zakarpattia, Odesa and Kherson regions – has centuries-old traditions. To implement reduced excise rates in Ukraine, a mechanism should be developed that takes into account the scale of production. For example, producers whose annual output does not

exceed a specified threshold could be eligible for a lower excise rate. Such a policy would reduce the financial burden on small enterprises and enhance their competitiveness relative to larger producers. It is also advisable to introduce simplified licensing procedures for small enterprises. In many cases, high licensing requirements act as a barrier to market entry for new participants.

The recommendations outlined above are aimed at comprehensively improving the regulation of excisable goods circulation in Ukraine, drawing on the successful practices of EU countries. The implementation of a Track & Trace system, the digitalisation of monitoring and reporting, the regulation of online sales, and support for small businesses will help reduce the scale of the shadow market, increase tax revenues, and ensure greater transparency in oversight mechanisms. A particular emphasis on supporting small producers will encourage regional economic development and the preservation of national traditions. A comprehensive approach to implementing these recommendations will support the harmonisation of Ukrainian legislation with international standards, foster a competitive business environment, and enhance the effectiveness of public administration in the excise goods sector.

Discussion

One of the key findings is that the absence of integrated digital platforms for monitoring the circulation of excisable goods creates significant gaps in oversight. This hinders the detection of violations, facilitates the growth of the illicit market, and reduces the overall effectiveness of public administration. In Ukraine, a unified platform that connects data from tax authorities, customs, producers, and retailers in real time has yet to be implemented. The issue of lacking integrated digital platforms is also highlighted by J. Opiso *et al.* (2023), who analysed the impact of digital systems on excise administration,

particularly concerning petroleum products. The authors conclude that the introduction of digital monitoring platforms for excisable goods significantly increases transparency and reduces excise tax evasion. However, as noted by J. Opiso *et al.* (2023), the effectiveness of such platforms depends on the technical capacity of personnel and the level of integration with existing government databases. These conclusions are fully supported, as the experience of other countries examined in this study confirms that digital platforms are an effective tool for reducing the size of the shadow market. In turn, A. Podkalicka and M. Fredriksson (2023) highlighted that digital platforms not only enhance transparency in monitoring but also influence the behaviour of market participants. The authors argue that such platforms create new mechanisms of interaction between producers, sellers and regulatory authorities while emphasising the need for mediation – that is, coordination between the various stakeholders. Authors also noted that the absence of integrated platforms leads to fragmented information, which complicates oversight and creates opportunities for manipulation. These conclusions can be supported only in part. The importance of mediation and coordination is undeniable, particularly in the context of Ukraine, where inter-agency cooperation and the integration of tax control systems remain limited. However, the authors' emphasis on information fragmentation as a key issue is more relevant to countries with well-developed digital trading markets. In Ukraine, the main challenge is not so much fragmentation but the absence of a centralised platform to consolidate existing data.

The study also revealed that online sales of excise goods remain the least regulated area. The absence of licensing requirements for platforms, as well as the lack of mandatory identification for buyers and sellers, contributes to the expansion of the illicit market. The growing popularity of ecommerce in Ukraine makes this issue

increasingly pressing. E. Ervina *et al.* (2023), in their research, also examine the regulation of online sales of excisable goods, particularly through the introduction of legal provisions. The authors stress that the primary issue lies in the insufficient oversight of platforms trading in excise goods. They emphasise that the lack of platform registration requirements and buyer identification mechanisms creates conditions for tax evasion and facilitates the growth of the illegal market. Meanwhile, A. Mufti and M. Limatahu (2022), in their study of the supervisory role of the Directorate of Customs and Excise in the Maluku Region, pointed out that the complexity and fragmentation of licensing procedures also hinder control over the circulation of excise goods, especially in remote and isolated areas. These conclusions are valid, as similar challenges are also present in the Ukrainian market. The absence of platform licensing and buyer identification mechanisms in Ukraine indeed creates significant gaps in the oversight of online sales of excisable goods. Moreover, S. Ma *et al.* (2022), in their study on the impact of excise taxation on e-liquid pricing for electronic cigarettes in the context of online sales, concluded that e-commerce is one of the primary distribution channels for excisable goods, where prices often fail to reflect established norms due to tax evasion. The authors point out that the lack of effective regulation in the online trade of such goods contributes to the growth of the shadow market. They therefore emphasise the need to introduce excise duties for online sellers and to develop mechanisms for verifying price compliance with regulatory requirements. These conclusions are highly relevant to Ukraine, particularly given the rising popularity of electronic cigarettes and vaping liquids. However, the partial implementation of excise control in Ukraine requires adapting the proposed approaches to local conditions – specifically through the development of price verification tools and systems for monitoring

online sales. It is also important to consider the market's readiness for such reforms, as small businesses may face significant challenges in meeting these requirements.

Another key finding of the study is the insufficient integration of environmental standards into the regulation of excisable goods in Ukraine. The analysis revealed that, despite the existence of an environmental tax, its current structure does not reflect the specific characteristics of excisable goods production and fails to provide sufficient incentives for the greening of industrial processes. In this context, the perspective of F. Lanterna (2023) is particularly relevant. Author emphasised the need to reform excise duties on energy products, taking into account both environmental and redistributive goals. The author proposes an approach that combines incentives to reduce CO₂ emissions with targeted support for vulnerable social groups through the earmarked use of tax revenues. These conclusions can be partially agreed with, as the proposed mechanism could indeed enhance the effectiveness of environmental regulation. However, its implementation would require careful adaptation to the country's economic conditions to avoid placing an excessive tax burden on businesses. E. Onyeabor (2024), meanwhile, examines international legal principles that set standards in environmental legislation. He argued that environmental excise taxes can only be effective if they are implemented with transparency, alignment with international norms, and sensitivity to local contexts. This position is well-founded, as the successful introduction of environmentally oriented excise duties depends on harmonisation with international standards – especially given Ukraine's commitment to European integration. Both approaches underline that environmental excise duties should serve not only fiscal purposes but also act as tools for sustainable development, aligning with the broader findings of this study.

The analysis of international experience in regulating the circulation of excisable goods has confirmed that the key elements of effective management in this sector include the implementation of digital technologies, harmonisation of legal frameworks with international standards, and targeted support for specific categories of producers. The use of integrated digital platforms, such as the EMCS system employed in EU countries, significantly enhances the transparency of excise goods circulation and reduces the risk of smuggling. G. Varrica and E. Cigu (2024), in turn, highlighted the importance of the principle of free movement of goods within the EU single market, particularly regarding excisable products. The authors note that harmonising excise legislation enables member states to reduce trade barriers and strengthen competitiveness. At the same time, they stress that the implementation of common standards, such as EMCS, requires not only technical integration but also political commitment and intergovernmental cooperation. These conclusions are particularly relevant for Ukraine, especially in the context of harmonisation with European standards. However, it is only partially possible to agree with all the authors' findings. The conditions for the free movement of goods within the EU are based on a high level of mutual trust between member states and integrated control mechanisms. In Ukraine, where the level of smuggling remains high, it is first necessary to establish effective control over the domestic market before integrating into international systems. H. Jatzke (2012), in his study, highlights that the excise suspension system in EU countries significantly facilitates the movement of excisable goods, such as alcohol and tobacco, within the single market. The author also emphasises that the integration of digital technologies ensures transparency at each stage of excise goods movement, but stresses the importance of further harmonisation of

procedures among EU member states – an argument that deserves support.

The analysis of international experience served as a foundation for developing specific recommendations that could be effectively implemented in Ukraine. The key areas include the introduction of digital tools for monitoring, the integration of environmental standards into excise regulation, the development of mechanisms for regulating online sales, and the stimulation of small businesses through tax incentives. These measures would help ensure market transparency, enhance control mechanisms, reduce the scale of the shadow economy, and contribute to regional economic development. An important component is the integration of all tools into a unified system that consolidates databases of various government agencies, enabling real-time information exchange. In examining the challenges of implementing excise tariffs for tobacco companies, W. Aziz (2024) notes that a complex tariff system and uneven distribution of excise burdens create obstacles for small producers. The author stresses that simplifying the tariff structure, developing flexible taxation mechanisms, and ensuring transparent oversight can significantly improve regulatory efficiency – findings that are also supported by the present research. R. Nugroho and E. Setijaningrum (2024), in their study, examine the mechanism for distributing excise funds based on an analysis of tobacco excise policy. The authors note that a fair and transparent distribution of excise revenues between central and regional authorities can serve as an important stimulus for local economic development. They also highlight that using excise funds to finance regional health programmes and efforts to combat the shadow market helps achieve socially significant objectives. However, these conclusions can only be partially supported, as the effectiveness of fair and transparent distribution largely depends on the level of administrative capacity and

oversight mechanisms in the regions. In countries with underdeveloped financial decentralisation or weak transparency in the use of public funds, such an approach may lead to inefficient allocation of resources or even abuse. M. Nurkhamid and M. Sutartib (2021), in their analysis of the exemption of ethyl alcohol from excise duties under customs legislation, emphasise that clear criteria for exemption – such as use in pharmaceuticals or scientific research – can support the development of these sectors without compromising the excise budget. At the same time, they stress the need for strict monitoring of ethyl alcohol usage to prevent its illegal distribution. The authors' conclusions can only be partially supported. While clear criteria for excise exemption represent an important step in supporting the pharmaceutical and scientific sectors, their practical implementation requires exceptionally strict oversight. Moreover, exemption criteria must not only be clearly defined but also adapted to the specific characteristics of each sector. Without sufficient detail, such provisions risk being exploited for tax avoidance under the guise of legitimate use. Therefore, although the approach of supporting specific industries through excise exemptions is promising, its effectiveness largely depends on the existence of transparent regulatory procedures and mechanisms to monitor the targeted use of exempted ethyl alcohol.

In conclusion, the recommendations developed on the basis of EU experience aim to address key challenges in the regulation of excisable goods in Ukraine. The introduction of digital platforms, regulation of online trade, support for small businesses, and the environmental orientation of excise policy have the potential to significantly improve governance, reduce the shadow market, and ensure alignment with European standards. These recommendations represent an important step towards modernising Ukrainian legislation and enhancing transparency in the excise goods market.

Conclusions

The findings of the study have made it possible to identify key challenges and prospects for improving the regulation of excisable goods in Ukraine. Firstly, the analysis of Ukraine's regulatory framework revealed several significant issues that hinder the effective oversight of excisable goods. In particular, while the excise marking system and the EFSA platform establish basic conditions for monitoring the circulation of excisable products, their limited integration with other digital platforms restricts the potential for comprehensive supervision. In addition, the insufficient regulation of environmental standards in the production of excisable goods remains a critical challenge. Mechanisms governing emissions and waste disposal are still inadequately detailed in certain sectors. Although high excise tax rates contribute to state revenue, they also increase the risk of illicit trade and call for optimisation, such as broadening the list of excisable goods to include luxury items. Legislative restrictions on advertising, sales promotions and sponsorship of excisable goods – particularly tobacco products and electronic cigarettes – represent a positive step towards minimising social harm. However, the absence of mechanisms for verifying buyers' age in online sales remains a serious concern. The licensing process for activities related to excisable goods also requires modernisation. Current procedures are overly complex and insufficiently digitised, posing significant obstacles to small and medium-sized enterprises. Therefore, the improvement of the regulatory framework demands a comprehensive approach. This should include alignment with international standards, the simplification of procedures for businesses, and the integration of digital technologies to enhance transparency and regulatory effectiveness.

The analysis of international practices in Germany, France, Italy and the Netherlands in regulating the circulation of excisable goods has

shown that the key elements of effective management include the implementation of digital technologies, the harmonisation of legislation with international standards, and support for small businesses. The use of integrated systems, such as Track & Trace platforms, ensures transparency at all stages of product distribution and significantly reduces the share of counterfeit goods in the market. Efficient licensing mechanisms and identification procedures for online traders, as applied in EU countries, help mitigate the risks of illicit trade, particularly via the Internet. A socio-environmental approach to taxation, which encourages the use of environmentally friendly products, increases the effectiveness of excise policy and reduces environmental harm. Support for small producers through preferential excise rates creates favourable conditions for local economic development and the preservation of national traditions. Importantly, all these mechanisms are underpinned by a high level of digitalisation and the integration of intergovernmental platforms, enabling EU countries to coordinate excise control measures effectively.

The study identified insufficient integration of environmental standards into the regulation of excisable goods in Ukraine. The introduction of environmentally oriented excise duties – taking into account CO₂ emissions or the volume of waste generated – could serve as an effective instrument for promoting the greening of production processes. The experiences of France and Italy demonstrate that such excise duties not only serve fiscal purposes but also contribute to achieving climate goals. Implementing similar mechanisms in Ukraine would help reduce the environmental impact of excisable goods production, support the modernisation of enterprises, and create conditions for harmonisation with international standards.

Based on the findings, a series of recommendations have been developed to improve

the effectiveness of excise regulation in Ukraine. One of the key priorities is the implementation of a Track & Trace system, which enables the monitoring of each unit of product throughout all stages of its circulation. It is recommended to establish an integrated electronic platform that brings together data from customs authorities, tax services, and producers, allowing for real-time monitoring. To address issues related to online sales, it is proposed to introduce buyer identification through electronic signatures or banking systems, alongside the licensing of sellers. These measures would help reduce the share of the illegal market. Particular attention is given to supporting small businesses by introducing preferential excise rates for producers with limited output, especially in the wine and

craft brewing sectors. It is also recommended that environmental standards be integrated into excise policy, with differentiated rates based on producers' environmental impact. Further research may focus on developing specific implementation mechanisms for these recommendations, as well as evaluating their effectiveness following implementation.

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Conflict of Interest

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Адміністративно-правове регулювання та проблема дотримання екологічних стандартів виробництва та обігу підакцизних товарів

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Анотація

Метою дослідження було вивчення особливостей механізмів регулювання обігу товарів, що підлягають акцизному оподаткуванню, в Україні для виявлення шляхів їх оптимізації та підвищення ефективності. У дослідженні з використанням формально-юридичного, статистичного та порівняльного методів проведено комплексний аналіз чинної нормативно-правової бази України, статистичних даних та міжнародного досвіду у сфері регулювання обігу підакцизних товарів. В результаті виявлено ключові проблеми адміністративно-правового регулювання обігу підакцизних товарів. Зокрема, встановлено, що чинні механізми регулювання недостатньо враховують екологічні вимоги, що сприяє негативному впливу на довкілля та посиленню екологічних ризиків. Зокрема, аналіз нормативної бази показав відсутність чітких критеріїв екологічної оцінки для виробників підакцизних товарів, а також брак контролю за утилізацією виробничих відходів. Крім того, виявлено недостатню адаптацію українського законодавства до європейських стандартів, зокрема у питаннях цифровізації контролю за виробництвом і обігом підакцизних товарів. Додатково встановлено, що чинні механізми адміністративного нагляду, такі як перевірки та контрольні заходи, є недостатньо прозорими, що створює передумови для корупції. Аналіз статистичних даних засвідчив, що частка нелегального обігу тютюнових виробів збільшилася з 2% у 2017 році до 17,8% у 2022 році, в той час як кількість вироків знизилася втричі. На основі аналізу міжнародного досвіду, зокрема практики Німеччини, Франції, Італії та Нідерландів, запропоновано низку рішень, таких як впровадження електронної акцизної марки, створення автоматизованих систем обліку та контролю обігу підакцизних товарів, посилення митного контролю на кордонах та запровадження публічних реєстрів ліцензіатів. Рекомендовано також удосконалення нормативно-правових актів шляхом адаптації європейських підходів до українських реалій, що сприятиме зменшенню тіньового сектору та збільшенню податкових надходжень. Отримані результати свідчать про необхідність системних змін у регулюванні підакцизної сфери та створення ефективної моделі адміністративного нагляду, що відповідає міжнародним стандартам

Ключові слова: сталий розвиток; державний контроль; тіньовий ринок; утилізація відходів; цифровізація моніторингу; європейські стандарти



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Legal status of former customary land ownership evidence after its validity period expires: Assessment of the legal certainty over Indigenous peoples' land rights

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Abstract

This study examined the legal protection afforded to holders of written evidence of former customary land ownership in Indonesia, particularly in the context of Article 96(2) of Government Regulation No. 18 of 2021 "On the Management Rights, Land Rights, and Land Registration", which renders such documents invalid after five years. The provision raises significant

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concerns regarding legal certainty and the constitutional rights of Indigenous communities. Employing a normative juridical method and a conceptual approach, the study analysed the tension between state-imposed administrative requirements and the historically rooted recognition of land ownership under customary law. The findings indicated that the sudden invalidation of traditional land documents without transitional mechanisms creates legal exclusion and deepens structural inequality, particularly among rural and Indigenous populations with limited access to legal resources. The analysis demonstrated that such a policy undermines the principles of procedural fairness, legitimate expectations, and the protection of property rights as guaranteed by the 1945 Constitution of Indonesia and international human rights instruments. The study argued for a rights-based and restorative framework to ensure transitional legal protection and the recognition of non-formal evidence rooted in Indigenous traditions. This approach is essential for aligning agrarian policy with justice, inclusivity, and constitutional obligations

Keywords: customary land rights; legal certainty; Indigenous communities; transitional justice; land registration; property rights; constitutional protection

Introduction

Customary land rights remain one of the most pressing issues in the legal framework of Indonesia, especially in 2024 when administrative reforms intersect with persistent demands for Indigenous recognition. The expiration of legal recognition for non-formal land documents risks marginalising communities that have long relied on these documents to secure tenure and identity. This issue is particularly urgent due to the ambitious land registration policies and modernisation efforts of Indonesia, which may inadvertently undermine historical claims. At the same time, the socio-economic vulnerability of Indigenous communities highlights the critical importance of ensuring legal protection for conventional land ownership. This creates a complex challenge of aligning formal legal mechanisms with lived realities in diverse local contexts.

Recent studies cover the complex challenges faced by Indigenous communities in asserting land and resource rights in contemporary governance frameworks. A. Abdullah *et al.* (2024) explored the political ecology of Indigenous forest recognition in Indonesia, highlighting that while

formal policies promise community empowerment, they often generate new forms of exclusion and marginalisation. A.A. Kamula (2025) analysed the non-involvement of the Cek Bocek Salesek Reen Sury Indigenous community in mining approvals in Sumbawa Regency, demonstrating how such exclusion violates principles of participation, transparency, and sustainable development, ultimately leading to prolonged social conflicts. R. Aprido and F. Fatimah (2023) reflected on the broader challenges regarding the tension between formal legal systems and Indigenous land tenure, emphasising that the elimination of customary evidentiary value without inclusive transitional mechanisms risks marginalising Indigenous communities and perpetuating legal exclusion. A. Artaji *et al.* (2024) examined restorative justice approaches in resolving agrarian conflicts on plantation lands in Indonesia, concluding that participatory conflict resolution mechanisms can bridge the divergent perspectives of communities, the state, and private stakeholders. A.L. Vásquez (2024) critiqued dominant narratives of Indigenous environmental

stewardship, arguing that capitalist land grabs threaten the sustainability of communal land systems and Indigenous ways of life. S. Teitelbaum *et al.* (2023) analysed governance in boreal forests, demonstrating that inclusive and hybrid governance models involving Indigenous and local communities enhance adaptive land management and promote sustainable development. P. Bose (2023) conducted a study of Indigenous resistance to mining-induced deforestation in India, finding that community-led initiatives and social movements challenge exclusionary policies, calling for decentralised, equitable governance. L. Notess *et al.* (2021) traced the historical erasure of Indigenous land rights through the implementation of Torrens-style registration systems in settler and post-colonial contexts, showing how formalised registration frameworks have undermined communal land tenure and perpetuated structural exclusion. Collectively, these studies reveal the persistent tension between formal legal structures and Indigenous governance systems, emphasising the need for integrative legal frameworks that accommodate Indigenous land tenure practices and protect communal rights.

The purpose of this study was to analyse the legal status of written evidence of former customary land after the enactment of Article 96(2) of Government Regulation of the Republic of Indonesia No. 18 (2021), and its implications for the protection of Indigenous land rights in Indonesia. This study intended to identify the normative gaps in the current regulatory framework and assess the extent to which these gaps may undermine the constitutional guarantees of legal certainty, procedural fairness, and property rights. The study also proposed specific legal and administrative reform strategies that could integrate transitional protection mechanisms for indigenous communities while strengthening the recognition of communal land rights in Indonesia's agrarian system.

Materials and Methods

This study adopted a normative juridical approach that focuses on analysing the law as a written norm prevailing in society. This approach emphasised the interpretation of positive legal systems, including statutory regulations, legal doctrines, general legal principles, and constitutional norms, to examine the legal status of written evidence of former customary land ownership following the enactment of Government Regulation of the Republic of Indonesia No. 18 "On the Management Rights, Land Rights, and Land Registration" (2021). The principal aim of this method was to assess the consistency of Article 96(2) with fundamental principles such as legal certainty, justice, and the protection of property rights within the framework of a constitutional state. This approach is particularly relevant in modern legal systems that require systematic and coherent legal interpretation, one that is not solely textual but also contextual.

The study applied a statute approach to examine the juridical construction of the norms contained in Government Regulation of the Republic of Indonesia No. 18 (2021), their relationship with agrarian provisions in the Basic Regulations on Agrarian Principles of Indonesia (1960), and their normative alignment with the Constitution of the Republic of Indonesia (1945). A conceptual approach was also employed to examine key ideas such as customary rights, communal ownership, and legal certainty from the perspective of procedural justice. This conceptual framework was essential, given that agrarian law encompasses not only formal-legal dimensions, but also philosophical and historical aspects related to the collective right to land. These aspects included international legal instruments such as the Indigenous and Tribal Peoples Convention (1989) and the United Nations Declaration on the Rights of Indigenous Peoples (2007). This methodological approach was intended to evaluate the normative

coherence of existing regulations with universal standards of justice and the obligation of the state to protect conventional rights. Consequently, the study was not only descriptive-analytical in its legal interpretation but also evaluative in assessing the extent of legal protection afforded to Indigenous communities within the context of national agrarian practices.

Results and Discussion

The constitutional relevance of Indigenous rights recognition: An analytical discussion.

The constitutional recognition of Indigenous communities in Indonesia, as articulated in Article 18B(2) and Article 28I(3) of the Constitution of the Republic of Indonesia (1945), positioned the rights of Indigenous law communities within the framework of fundamental rights that cannot be subordinated to administrative regulations. However, the implementation of Article 96(2) of Government Regulation of the Republic of Indonesia No. 18 (2021), which imposes a five-year expiration period on written evidence of customary land, creates a profound tension between constitutional guarantees and administrative enforcement. International legal frameworks, such as the United Nations Declaration on the Rights of Indigenous Peoples (2007) and the Indigenous and Tribal Peoples Convention (1989), emphasise the protection of Indigenous rights to lands and resources conventionally owned or occupied, highlighting the incompatibility of extinguishing these rights without participatory mechanisms or adequate transitional frameworks.

Comparative experiences from countries such as Canada and New Zealand provide concrete examples of how exclusionary legal frameworks have marginalised Indigenous communities. In Canada, for example, the *Tsilhqot'in Nation v. British Columbia* (2014) decision of the Supreme Court of Canada reinforced the recognition of Indigenous land rights that were not formally

documented, emphasising the role of oral histories and social legitimacy (Stauffer, 2020). In New Zealand, the Waitangi Tribunal demonstrated the failures of the Crown to honour conventional Maori land claims, showing how reliance on formal title systems has erased communal land ownership structures (O'Sullivan *et al.*, 2021). These examples parallel the challenges of Indonesia in balancing formal legal frameworks with Indigenous norms.

Indonesian land law, particularly the Basic Regulations on Agrarian Principles of Indonesia (1960), acknowledges the continued relevance of customary rights through concepts such as *ulayat* (communal) land. However, modern regulatory instruments, including the Law of the Republic of Indonesia No. 24 "On Land Registration" (1997), increasingly prioritise formal documentation, thereby marginalising oral or conventional evidence recognised by Indigenous communities. The study of J.F. McCarthy *et al.* (2022) demonstrates that this legalistic bias perpetuates systemic exclusion and reinforces structural inequalities. The imposition of an expiration period for conventional land evidence directly conflicts with Indigenous oral legal systems, which rely on collective memory, intergenerational transmission of land rights, and socially validated claims rather than written documentation. Research shows that communities such as the Kajang in South Sulawesi and the Baduy in Banten maintain complex customary systems where legitimacy derives from consensus and ritual acknowledgement, not formal legal records (Abdullah *et al.*, 2024). Nullifying the legal weight of such evidence undermines these communities' cultural integrity and violates the principle of legal pluralism, which recognises multiple coexisting legal orders (Teitelbaum *et al.*, 2023).

A further analysis of transitional justice mechanisms in land reform underscores the necessity of integrating Indigenous perspectives

into state law. For example, restorative justice models in agrarian conflicts have demonstrated that participatory dispute resolution frameworks can bridge the gap between formal law and community norms, ensuring equitable outcomes. In this context, the current legal approach of Indonesia lacks the requisite inclusivity and adaptability, creating a risk of legal exclusion for Indigenous communities that are unable to comply with rigid formal procedures. This discussion demonstrates that the constitutional obligation of the state and international law is not merely symbolic but requires substantive legal protections that respect Indigenous cultural systems. Legal empowerment strategies, including the formal recognition of non-formal evidence and the provision of community-based legal services, are essential to uphold the principle of substantive equality and ensure fair access to justice. Failure to implement such measures risks transforming state law into a mechanism of exclusion rather than a facilitator of inclusion and protection.

Access to land registration: Sociological realities and legal marginalisation. One of the critical challenges in the land registration system of Indonesia is the fundamental disconnect between legal formalism and the lived realities of Indigenous law communities. Article 96(2) of the Law of the Republic of Indonesia No. 18 (2021) stipulates that written evidence of customary land ownership (such as *girik*, *petuk*, or *pipil*) must be registered within five years of the regulation's enactment. Failure to comply renders these documents legally invalid. However, this formal requirement disregards the socio-cultural contexts in which these communities operate, particularly in Papua, West Kalimantan, and parts of Sulawesi, where access to administrative infrastructure is limited, and conventional land tenure is deeply rooted in oral histories and social legitimacy (Sani, 2020). In these regions, land ownership is affirmed

through intergenerational transmission, communal rituals, and genealogical ties – practices that have historically secured land rights without the need for formal documentation.

This disconnect reflects a broader tension between state-centric positivist legal norms and customary law that operates as a “living law” in Indigenous societies. Article 5 of the Basic Regulations on Agrarian Principles of Indonesia (1960) explicitly recognises the validity of customary law in agrarian matters, provided it aligns with national interests. However, the implementation of Article 96(2) of Government Regulation of the Republic of Indonesia No. 18 (2021) contradicts this recognition by effectively invalidating oral and non-formal evidence that has long served as legitimate proof of land ownership. Such legal rigidity disproportionately affects communities with low levels of legal literacy and limited access to registration services, reinforcing structural inequalities and marginalising Indigenous peoples from their ancestral lands (Nehaluddin, 2020).

The situation in Indonesia can be contrasted with legal frameworks in countries such as Canada, Australia, and New Zealand, where the legal system has progressively integrated Indigenous oral evidence and community-based land claims into formal legal structures (Dudgeon & Bray, 2019). For instance, Section 35 of the Constitutional Act of Canada (1982) affirms Indigenous land rights, and landmark rulings such as *Delgamuukw v. British Columbia* (1997) accept oral histories as valid evidence in land disputes. Similarly, the Native Title Act of Australia (1993) provides for the recognition of communal land claims supported by conventional knowledge and practices. These frameworks demonstrate the feasibility of integrating plural legal traditions to ensure both state legal certainty and the protection of Indigenous rights. Table 1 illustrates a comparison of evidentiary requirements in Indonesia and selected jurisdictions.

Table 1. Comparative legal frameworks for Indigenous land rights recognition in Indonesia, Canada, Australia, and New Zealand

Jurisdiction	Legal Framework	Accepted Evidence Types	Integration of Oral Traditions
Indonesia	Basic Regulations on Agrarian Principles (1960), Government Regulation of the Republic of Indonesia No. 18 (2021)	Formal documents (girik – informal land ownership letter, petuk – historical land document, land certificate)	Limited, oral traditions not formally recognised
Canada	Constitutional Act of Canada (1982), <i>Delgamuukw v. British Columbia</i> (1997)	Oral histories, community testimonies	Explicitly recognised and validated
Australia	Native Title Act of Australia (1993)	Anthropological reports, oral evidence	Recognised within claims procedures
New Zealand	Treaty of Waitangi (1840)	Cultural and historical evidence, oral traditions	Forms a core part of recognition

Source: developed by the authors

The contrast demonstrates that while the legal system of Indonesia emphasises formal written evidence, other jurisdictions adopted more inclusive and culturally responsive frameworks, accommodating the diversity of Indigenous land tenure systems. Bridging this gap requires revision of Article 96(2) of the Government Regulation of the Republic of Indonesia No. 18 (2021) to incorporate provisions for community-based verification systems, recognise oral traditions as valid forms of evidence, and establish participatory land registration programmes that respect Indigenous legal systems (Wijaya *et al.*, 2024). Without such reforms, the state risks perpetuating legal disenfranchisement, undermining constitutional guarantees under Article 18B(2) and 28I(3) of the Constitution of Indonesia (1945), and escalating agrarian conflicts driven by systemic exclusion.

Comparative legal analysis indicates that countries such as Canada and Australia implemented mechanisms to integrate Indigenous oral evidence into formal land rights recognition. Section 35 of the Constitutional Act of Canada (1982) recognises the rights of Indigenous peoples, and landmark cases such as *Delgamuukw v. British Columbia* (1997) affirm that oral histories constitute valid evidence in land disputes. The Native Title Act of Australia (1993)

permits recognition of communal land claims based on cultural practices and long-standing occupation, with evidence requirements adjusted to reflect Indigenous oral traditions (Marshall, 2019). These international approaches provide a benchmark for Indonesia to consider legislative amendments that incorporate community-based legal verification, ensuring that Indigenous communities are not unfairly excluded from formal systems of land ownership.

The current Indonesian framework lacks sufficient provisions for transitional legal protection. Unlike New Zealand's Treaty of Waitangi (1840), which provides a legal foundation for acknowledging Maori land claims through historical and cultural ties (Marshall, 2019), Government Regulation of the Republic of Indonesia No. 18 (2021) offers no alternative recognition for customary land claims that cannot meet formal documentation standards. This not only violates Indigenous communities' legitimate expectations but also risks infringing Article 28I(3) of the Constitution of Indonesia (1945), which mandates respect for cultural identities and traditional community rights. The absence of affirmative measures such as grace periods, facilitated registration services, or legal aid tailored to Indigenous needs reflects a broader structural exclusion perpetuated by Indonesia's legal system.

From a socio-legal perspective, the failure of the state to accommodate these realities constitutes a form of legal disenfranchisement, where the law inadvertently becomes a tool of exclusion rather than inclusion (Tamanaha, 2021). Empirical studies in Indonesia, including cases in Dayak customary territories and in the Mentawai Islands, show how the rigidity of formal registration processes has led to protracted disputes and dispossession of Indigenous lands (Rahmat *et al.*, 2023). The application of a one-size-fits-all legal approach disregards the nuanced socio-cultural fabric of these communities, reinforcing structural barriers to justice and exacerbating existing inequalities. This legal bias risks not only the erosion of customary law but also the escalation of social tensions and potential conflicts over land.

Legislative reforms in Indonesia are essential to redress these issues. A revision of Government Regulation of the Republic of Indonesia No. 18 (2021), particularly Article 96(2), should introduce transitional mechanisms such as extending the validity period of traditional evidence and recognising community-based verification processes. A Presidential Regulation (Perpres) could be issued to operationalise these transitional protections, modelled on the Specific Claims Tribunal Act (2008), which provides avenues for Indigenous communities to present claims based on historical and cultural evidence. The Ministry of Agrarian Affairs and Spatial Planning should implement community-based legal services, drawing on the approach in Mexico's Agrarian Reform Law (Decree of the President of Mexico, 1992), which incorporates participatory mapping and legal counselling to bridge the gap between state formalities and Indigenous practices. In practice, Indonesia can also draw on successful initiatives such as the Recognition and Protection of Customary Law Communities programme in Bali and South Sulawesi, where local regulations and village ordinances provide

frameworks for recognising and protecting communal land rights. These localised approaches, combined with national legal reforms, would ensure a more inclusive and just land registration system. Incorporating oral traditions, community narratives, and participatory mechanisms into formal legal processes would enable Indonesia to align its agrarian policies with constitutional guarantees of justice and legal pluralism.

The idea of introducing transitional mechanisms, such as extending the validity of traditional evidence and strengthening the role of communities in verifying land rights, aligns with the framework of legal pluralism, which recognises the coexistence of multiple legal systems – state, customary, and religious law – within a single national space. In the context of Indonesia, this concept has deep historical roots. As R. Lukito (2013) notes, Indonesian law was formed through the interaction of state law, Islam, and adat rules, resulting in a complex multi-level legal structure. His approach to “bridging the unbridgeable” demonstrates the need not for unification, but for coordination and mutual recognition of different sources of law. N.A. Hamida (2022) shows that in practice, the Indonesian state resorts to positivising adat law through local regulations, which often leads to bureaucratisation and a loss of flexibility in customary practices. An alternative approach is participatory integration: mechanisms that allow communities to independently document, represent, and confirm their land rights, as demonstrated in the Recognition and Protection of Customary Law Communities programme in Bali and South Sulawesi.

In this context, it is appropriate to apply the categories of intercultural constitutionalism, which, in Latin American legal theory (e.g. in Bolivia or Ecuador), is understood as the mutual recognition and institutionalisation of legal diversity. The Indonesian model, which combines local ordinances, adat law, and centralised regulation,

effectively reflects this approach, provided that the procedures are properly configured. As S. Isra and H. Tegnan (2021) emphasise, it is not formal harmonisation but legal syncretism and flexible mutual recognition procedures that can reduce tensions between adat norms and state legislation. The implementation of mechanisms such as the continuation of conventional evidence, the recognition of collective memory, and the introduction of presidential regulations supporting the legal inclusion of communities aligns with two theoretical frameworks: legal pluralism (Lukito, 2013; Hamida, 2022) and intercultural constitutionalism (Isra & Tegnan, 2021). These frameworks enable the creation of a flexible and fair legal regime capable of ensuring the rights of communities without undermining their autonomy.

In Indonesia, the concept of adat already has constitutional recognition (Articles 18B and 28I of the Constitution), but the absence of effective legal mechanisms to implement this recognition, including provisions for prolonged transition periods, support for undocumented claims, and community participation, renders it largely declarative. From the perspective of intercultural constitutionalism, the situation requires hybrid mechanisms such as presidential regulations adapted to the adat context and community participation in the formalisation of rights. This analysis underscores that genuine legal certainty and justice in land rights recognition cannot be achieved through formalistic standards alone. Achieving these objectives requires a contextual understanding of social realities, inclusive legal mechanisms, and a commitment to equitable reform. Bridging the gap between state law and customary practices is essential for ensuring that the legal system of Indonesia serves as an instrument of social integration rather than exclusion.

Transitional justice and customary land tenure: Bridging the legal gap. The transition to a post-conflict or reform era in Indonesia opens

strategic opportunities for applying transitional justice to customary land disputes. Efforts to respect customary rights through comparative law approaches from other countries, such as those of Europe and Asia, can serve as models for regulation based on human rights principles and local knowledge (Zamrud & Salam, 2022). Such an approach highlights that the recognition of customary tenure is not limited to the restoration of land rights but extends to achieving historical justice and social reconciliation.

From an international academic perspective, transitional justice addresses not only property restitution but also structural improvements to the land law system. L.A. Wily (2009) emphasised the importance of customary tenure reform during peaceful transitions to prevent the erosion of customary rights and provide space for the adaptation of formal law based on local contexts. In Indonesia, this goal should be pursued through harmonisation between formal regulations, such as Government Regulation of the Republic of Indonesia No. 18 (2021), and the recognition of Indigenous peoples, thereby preventing a legal vacuum and strengthening the legitimacy of the state (Simarmata, 2019). First, the Law should be amended by adding a separate section on transitional mechanisms for recognising adat territories. This section should establish an extended grace period during which adat communities could apply for land registration without the requirement of formal documents. The Law should also incorporate provisions requiring the state to conduct information and awareness campaigns on adat rights as a form of historical and legal rehabilitation. This position aligns with the study of A. Ward *et al.* (2012), which highlights that restoring property rights without acknowledging their historical value is an insufficient element of transitional justice.

Practically, the recognition of customary tenure through transitional justice can facilitate

the design of an equitable and accessible customary land registration mechanism. The Profor study (2024) notes that around 70% of the state forest area in Indonesia is still controlled by the state, although only 11% has been legally verified, creating a gap that fosters conflict and marginalisation of indigenous peoples (Profor, 2024). Therefore, legal reform recommendations should include procedures for demarcating customary territories, simplifying the verification process, and empowering communities through customary registries, so that transitional justice policies in the land sector deliver substantive and inclusive justice.

Strengthening the position of Indigenous peoples in the national legal system requires concrete and inclusive legal recognition at both the legislative and implementation levels. Although the Constitution of the Republic of Indonesia (1945) (Article 18B, paragraph 2) recognises customary law communities, practical enforcement remains limited, with overlapping regulations and insufficient inter-agency coordination persisting (Sihotang *et al.*, 2025). Legal reform recommendations should, therefore, involve drafting clear customary laws with defined standards for verifying customary boundaries and enhancing inter-agency coordination. Participatory approaches, such as Free, Prior, and Informed Consent, are crucial to ensure the genuine involvement of Indigenous peoples in all stages of land management and development projects. In the context of Indonesia, this could be operationalised through regulations requiring the active participation of Indigenous peoples in customary registration processes, alongside systematic evaluations of environmental impacts for development projects (Aznannya, 2024).

Practical recommendations also encompass institutional strengthening and increased funding for Indigenous villages. The successful social forestry model in Bantaeng (2019-2021) demonstrates that, with access to forest management

and financial support, local communities can maintain both their welfare and environmental sustainability (Veriasa *et al.*, 2020). Indonesia should encourage the establishment of customary village units with full authority over customary land and provide minimum allocations from the State and Regional Revenue and Expenditure Budgets to support customary registration, demarcation, and litigation activities.

Thus, the application of transitional justice mechanisms to issues of customary land tenure in Indonesia extends beyond restitution and demands a comprehensive rethinking of the legal landscape. It concerns more than the formal recognition of rights, representing an effort to integrate historical justice, local knowledge, and cultural practices into the foundations of modern legislation. This approach enables the principles of legal pluralism to be aligned with the concept of human rights, creating a model in which adat territories are regarded not as exceptions but as integral components of the broader legal system. Moreover, the considerable gap between constitutional guarantees and administrative practice highlights the need for institutional reconfiguration and budget reallocation. International studies demonstrate that sustainable legitimisation of adat land tenure can be achieved only through the creation of separate procedures, including extended grace periods, flexible verification mechanisms, and authentic community participation. In this sense, transitional justice operates not as a reactive measure but as a transformative tool, enabling reform of the legal system towards inclusiveness, flexibility, and fairness.

Conclusions

This study examined the legal status of expired customary land ownership evidence in Indonesia, focusing on the implications of Article 96(2) of Government Regulation of the Republic of Indonesia No. 18 for Indigenous communities. The

research sought to determine whether the elimination of legal validity for conventional documents without transitional safeguards undermines constitutional guarantees, and whether reforms are necessary to align national land law with the principles of justice, equality, and cultural recognition. The objective of the study was achieved through a systematic analysis of relevant statutory provisions, comparative international experience, and conceptual frameworks such as legal pluralism and transitional justice.

The study established that Article 96(2) lacks adequate transitional mechanisms, thereby legally disenfranchising many Indigenous communities. The analysis demonstrated that the invalidation of conventional land evidence, such as *girik* and *petuk*, disregards the socio-legal context in which such documents operate and fails to acknowledge oral traditions as valid forms of land tenure. It was discovered that this legal framework contradicts both the constitutional provisions of Indonesia – specifically Articles 18B(2) and 28I(3) – and international human rights standards. Comparative analysis with jurisdictions such as Canada and Australia further highlighted that oral and community-based evidence is increasingly recognised as a legitimate basis for land rights. The study also demonstrated that the Indonesian regulatory system reinforces structural inequality by privileging formal legal instruments while overlooking communal systems of legitimacy.

These findings indicated that the issue is not merely administrative but fundamentally

constitutional and sociological. The lack of inclusive procedures and institutional flexibility reflects a deeper conflict between formal state law and Indigenous legal traditions. Conceptually, the study confirmed that bridging this divide requires integrating transitional justice principles and recognising legal pluralism within agrarian law. It also reinforced the argument that legal certainty must not be interpreted narrowly as formal registration, but more broadly as accessibility, recognition, and protection for all social groups.

Overall, this study contributed to the growing body of literature on Indigenous land rights in Indonesia by demonstrating how administrative rigidity can result in legal exclusion and injustice. It highlighted the need for more culturally sensitive and participatory legal reforms. Future research should focus on evaluating the implementation of community-based verification programmes, monitoring judicial responses to land disputes involving Indigenous evidence, and assessing how decentralised legal reforms can support more equitable outcomes for customary law communities across different provinces of Indonesia.

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Conflict of Interest

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Правовий статус колишніх доказів традиційного володіння землею після закінчення терміну їх дії: оцінка правової визначеності щодо прав корінних народів на землю

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Анотація

У статті розглянуто правовий захист, що надається власникам письмових доказів колишнього звичаєвого права власності на землю в Індонезії, зокрема у зв'язку з положенням статті 96(2) Постанови Уряду № 18 від 2021 року «Про права управління, права на землю та реєстрацію землі», яка визнає такі документи недійсними через п'ять років. Це положення викликало серйозну стурбованість щодо правової визначеності та конституційних прав корінних громад. Використовуючи нормативний юридичний метод та концептуальний підхід, у цьому дослідженні проаналізовано напругу між адміністративними вимогами, встановленими державою, та історично вкоріненим визнанням права власності на землю на основі звичаєвого права. Дослідження показало, що раптове визнання недійсними традиційних документів на землю без перехідних механізмів створює правову ізоляцію та посилює структурну нерівність, особливо серед сільського населення та корінних народів, які мають обмежений доступ до правових ресурсів. Аналіз показав, що така політика підриває принципи процедурної справедливості, законних очікувань та захисту прав власності, гарантованих Конституцією Індонезії 1945 року та міжнародними документами з прав людини. У статті обґрунтовано необхідність створення правової та відновлювальної системи для забезпечення перехідного правового захисту та визнання неформальних доказів, що ґрунтуються в традиціях корінних народів. Такий підхід є необхідним для приведення аграрної політики у відповідність із принципами справедливості, інклюзивності та конституційними зобов'язаннями

Ключові слова: звичаєві права на землю; правова визначеність; корінні громади; перехідне правосуддя; реєстрація землі; права власності; конституційний захист



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Administrative legal liability for data breaches: Securing the right to compensation in Indonesia and the EU

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Abstract

The protection of personal data has become a fundamental concern in both legal theory and governance due to the exponential growth of digital ecosystems. With an emphasis on the right to compensation for impacted parties,

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this study critically evaluated Indonesia's institutional and legal framework for handling breaches of personal data. The analysis, which employed doctrinal legal research methods, focused on the General Data Protection Regulation of the European Union, Government Regulation No. 71 of 2019, and the Personal Data Protection Law, specifically Article 82, which provides compensation for both material and non-material harm. The findings pointed to serious institutional shortcomings in Indonesia's legal system. The 2020 Tokopedia data breach, which affected over 91 million users, serves as an example of the absence of institutional oversight and procedural clarity. Citing the applicability of administrative jurisdiction under the Law on Public Administration, the Central Jakarta District Court dismissed the case on jurisdictional grounds. On June 15, 2022, the Supreme Court subsequently affirmed this decision. Although compensation was prescribed in Article 58 of the Personal Data Protection Law, the mechanisms for implementing this provision have not yet been developed. On the other hand, the General Data Protection Regulation ensures that data subjects have effective remedies by requiring both administrative oversight through independent supervisory bodies and judicial access. The study concluded that Indonesia must harmonise public-private liability structures, codify explicit procedural remedies, and establish an empowered data protection authority. Comparative observations from the General Data Protection Regulation highlight how crucial dual-track enforcement, enforceable rights, and institutional autonomy are to protecting personal information and rebuilding public confidence

Keywords: administrative dispute resolution; compensatory justice systems; institutional accountability; procedural legal mechanisms; misuse of personal data; remedies for privacy violations

Introduction

The increasing significance of digital infrastructure in modern life has made protecting personal data even more urgent. The misuse of personal information presents systemic risks that extend beyond individual harm as digital interactions increasingly shape the social, economic, and political spheres. In this regard, data protection is a fundamental issue of democratic accountability, institutional legitimacy, and public trust rather than just a technical or legal one. Contemporary research underscores the need for stronger mechanisms to ensure accountability and redress in cases of data misuse (Lynskey, 2023). Data protection is framed as a fundamental right, emphasising the significance of cohesive institutional mechanisms for cross-jurisdictional enforcement (Syrlybayeva *et al.*, 2024). Institutional ambiguity is identified as a key barrier to safeguarding personal data, with legal clarity being essential in

digital governance. G. Hilary *et al.* (2016) argued that negligent corporate actors who fail to implement adequate security measures effectively facilitate harm and violate privacy rights, further noting that delayed breach notifications absent exigent circumstances are ethically impermissible. Together, these perspectives highlight the need for legal systems that combine preventive safeguards with prompt, enforceable remedies.

Within the European Union, Article 82 of the General Data Protection Regulation (GDPR) (2016) guarantees the right to compensation for both material and non-material harm arising from infringements, imposing liability on controllers and processors. Judicial practice, particularly the Court of Justice of the European Union (CJEU) ruling in Case No. C-300/21 (2023), clarifies that mere breaches do not automatically entitle for compensation; claimants must

demonstrate actual damage and causation, while Member States retain flexibility in defining damage thresholds. N. Lomas (2023) observed that courts are increasingly expanding the interpretation of “non-material damage”, thereby expanding victims’ access to remedies. A.A. Rahman and G. Greenleaf (2023) emphasised that independent data protection authorities (DPAs) are critical to effective enforcement, particularly in emerging legal systems.

In the Indonesian context, earlier studies have examined personal data protection from various legal perspectives. One line of analysis views privacy as a constitutional right under Article 28G of the Constitution of the Republic of Indonesia (1945) but notes the absence of an adequate compensation mechanism for victims of data breaches. Research on the Tokopedia case points to overlapping jurisdictions and fragmented enforcement as major barriers to redress (Saputra, 2020), while other studies highlight how the lack of an independent data protection authority, coupled with legal uncertainty, weakens enforcement and erodes institutional trust (Widiatedja & Mishra, 2022)

A data breach is defined as unauthorised actors accessing, obtaining, or sharing private information for commercial, political, or financial reasons. Cyberattacks accounted for 80% of global data compromises in 2024. S.S. Gracy (2024) demonstrated a steep increase in the volume of exposed data worldwide during the same period. While over 660 million records were reportedly compromised in Indonesia, particularly affecting the information services sector, these national figures are drawn from industry reports rather than peer-reviewed studies (SOCRadar Your Eyes Beyond, n.d.).

The 2020 Tokopedia data breach is among the most well-known incidents illustrating Indonesia’s legal restrictions (Rohendi & Kharisma, 2024). On dark web platforms, a hacker going

by the name ShinyHunters offered to sell the data of 91 million users (Perkasa & Saly, 2022). The Indonesian Consumer Community responded by suing PT Tokopedia and the Ministry of Communication and Information Technology (Kominfo), alleging that they had violated a series of laws, including Regulation of the Minister of Communication and Informatics of the Republic of Indonesia No. 20 (2016), Government Regulation of the Republic of Indonesia No. 71 (2019), the Law of the Republic of Indonesia No. 27 (2022) (PDP Law). Uncertainties regarding public and private legal responsibilities were exposed when the Central Jakarta District Court dismissed the case on jurisdictional grounds and sent it to the State Administrative Court (Judgement of the Central Jakarta District Court in Case No. 235/PDT.G/2020/PN.JKT.PST, 2022). Although this decision was upheld in the Supreme Court’s final decision on June 15, 2022, it did not address how overlapping responsibilities between private entities and regulatory bodies should be handled. This outcome reinforces concerns over Indonesia’s fragmented legal system, marked by the absence of a centralised oversight body, limited liability frameworks, and practical remedies for victims of personal data breaches. In contrast, the GDPR offers a more integrated model. M. Marelli (2023) showed that effective governance relies on robust institutional mechanisms to manage overlapping jurisdictions, enabling national DPAs to coordinate and resolve conflicts consistently. These insights underscore that effective data governance demands clear legal mandates, institutional independence, and enforceable rights.

Based on these advancements, the purpose of the present study was to investigate how Indonesia developed a logical legal framework for protecting personal data that combines administrative supervision with private law tools. The key objective of the study was to examine the institutional obligations and legal foundation for

handling data breaches and providing compensation to victims. Additionally, the study assessed the shortcomings of the existing regulatory remedies, especially when administrative inaction is involved. Finally, to identify normative principles that could guide future reforms in Indonesia's data governance system, the study compared and contrasted local legal framework to the GDPR.

Materials and Methods

This study adopted a doctrinal legal methodology (also known as black-letter law research), focusing on the systematic exposition, interpretation, and critical analysis of legal provisions governing personal data protection and the right to compensation following data breaches. This approach was well-suited to the purpose of this study, as it enabled a detailed engagement with statutory texts, judicial reasoning, and secondary legal scholarship. The study was structured around four complementary approaches. The statutory approach involved interpreting key legislative instruments, particularly the Law of the Republic of Indonesia No. 27 (2022) and GDPR (2016) of the European Union. The analysis identified the scope of administrative and civil liability as well as procedural avenues available for data subjects seeking compensation. Conceptual approach explored the regulatory foundations of privacy, data subject rights, and administrative justice. By grounding the analysis in constitutional and human rights principles, such as Article 28G of the Constitution of the Republic of Indonesia (1945) and Article 8 of the Charter of Fundamental Rights of the European Union (2000), this approach clarified how liability and compensation are situated within broader frameworks of public accountability and legal redress.

The Tokopedia data breach was analysed as a representative case of data protection litigation in Indonesia. Judgement of the Central Jakarta District Court in Case No. 235/PDT.G/2020/PN.JKT.PST (2022), the Court of Appeals, and the

Supreme Court (final ruling dated 15 June 2022) are critically examined to uncover the reasoning behind dismissals and to assess the structural limitations facing Indonesian courts in addressing personal data violations. A comparison with the European framework, particularly Article 82 of the GDPR (2016) and relevant judicial practice from the Court of Justice of the European Union (CJEU) served as a benchmark for evaluating Indonesia's liability regime. This comparative analysis helped to highlight divergences in enforceability, institutional capacity, and access to remedies.

Results

Personal data protection as a human right and administrative duty. Personal data protection emerged as a pivotal legal concern, intertwining the safeguarding of individual privacy rights with the administrative responsibilities of both public and private entities. It is essential to define 'personal data' to understand the scope and application of data protection law. International and regional legal instruments, including European Union Data Protection Directive (1995), the Convention for the Protection of Individuals about Automatic Processing of Personal Data (1981), and the OECD (2002) guidelines generally define personal data as any information relating to an identified or identifiable individual. Even when such information is disaggregated or anonymised, data protection authorities have affirmed that such data must still be protected if it can be re-traced to a particular individual.

Indonesia adopts an analogous approach through the Law of the Republic of Indonesia No. 27 (2022), which defines personal data as "any data about an identified or identifiable individual, either directly or indirectly, through electronic or non-electronic systems" (Article 1, Item 1). Furthermore, the Regulation of the Minister of Communication and Informatics of the Republic of Indonesia No. 20 (2016) classifies

personal data as part of “specific individual data”, which must be stored, maintained, and kept confidential following the regulatory standards. The regulation highlights that personal data includes any true and verifiable information that can be directly or indirectly attributed to an individual (Wibowo *et al.*, 2024)

In both Indonesian and European contexts, the protection of personal data is directly linked to the broader concept of the right to privacy. Indonesia’s legal system explicitly recognises this in the elucidation of the PDP Law (2022), which affirms that data protection is a manifestation of the constitutional right to dignity and security under Article 28G(1) of the Constitution of the Republic of Indonesia (1945). The Law further defines personal data protection (Article 1, Item 2) as “the entire effort to safeguard personal data during its processing to protect the constitutional rights of the data subject”. The PDP Law categorises personal data into two types: specific personal data and general personal data. Specific personal data includes sensitive categories such as health records, biometric data, genetic information, criminal records, data on children, and personal financial information. General personal data encompasses identifiers such as full name, gender, nationality, religion, and marital status, including combinations of data that can lead to the identification of the individual (Cholil & Rahmi, 2024).

The framing of personal data protection as a human right has been further reinforced by Indonesia’s ratification of the International Covenant on Civil and Political Rights (1966) (ICCPR). Article 17 prescribes that no individual shall be subjected to arbitrary or unlawful interference with their privacy, and that national legislation must effectively regulate the collection and processing of personal information. Analogously, in the European legal order, the right to privacy is prescribed in Article 7 of the Charter of Fundamental Rights of the European Union (2000) and Article 8 of the

European Convention on Human Rights (1950) which recognise privacy and data protection as core elements of fundamental, which established minimum privacy and security standards for member states. However, with the proliferation of digital technologies and online services, the European data protection authorities acknowledged the need for a more comprehensive approach.

In response, the General Data Protection Regulation (2016) (GDPR) applies to all entities, both public and private, that process personal data of individuals within the EU, regardless of the entity’s location. The regulation imposes not only legal but also administrative obligations, requiring data controllers and processors to implement technical and organisational measures, conduct impact assessments, and notify authorities and data subjects in case of breaches. From this perspective, personal data protection functions dually as a human rights safeguard and as an administrative obligation. The role of state authorities is not merely to declare the right but to establish effective institutional mechanisms, such as independent supervisory bodies, administrative procedures, and sanctioning powers, to ensure enforcement. Likewise, private entities are subject to strict administrative liability for failing to implement adequate data protection safeguards. Thus, both Indonesia and the European Union recognise personal data protection as essential to individual autonomy and democratic governance. However, the degree to which these rights are supported by administrative enforcement mechanisms continues to be a key point of divergence and an area for ongoing legal development.

Conceptualisation and classification of personal data and breaches. The protection of personal data is intrinsically tied to the constitutional mandate to safeguard individual dignity, privacy, and security (Yustina, 2022). In Indonesia, the Law of the Republic of Indonesia No. 27 (2022) was established as a legislative

response to growing concerns regarding the misuse and exposure of personal data in both public and private domains. According to its preamble and general elucidation, the Law seeks to enact Article 28G (1) of the Constitution of the Republic of Indonesia (1945), which affirms every individual's right to the protection of their person, family, honour, dignity, property, and sense of security. Personal data breaches are therefore not only violations of administrative standards but also of fundamental rights (Attidhira & Permana, 2022).

In global discourse, the term 'data breach' typically refers to any incident wherein personal data is accessed, disclosed, lost, or destroyed in an unauthorised or unlawful manner (Budiman, 2023). The GDPR (2016) of the European Union defines a data breach comprehensively as any violation of data security leading to the "accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to personal data" that is transmitted, stored, or otherwise processed. This broad definition encompasses a variety of scenarios, including unauthorised access by both internal and external actors, intentional or negligent conduct by data controllers or processors, the transmission of personal data to unintended recipients, and the theft or loss of devices containing such data. Additionally, data breaches may involve unauthorised alteration or destruction of personal data, as well as instances where critical data systems become inaccessible or unavailable, thereby undermining data integrity and availability.

The PDP Law (2022) reflects conceptions of data governance analogous to those found in international frameworks. Article 16(1) outlines the core phases of personal data processing, which include the collection, analysis, storage, disclosure, and eventual destruction of data. Each of these phases is governed by a set of binding principles as specified in Article 16(2), which align closely with international best practices. These princi-

ples include data minimisation, requiring that data collection be limited and specific to its stated purpose; purpose limitation, mandating that processing activities correspond to clearly disclosed objectives; and the foundational standards of lawfulness, fairness, and transparency. Additionally, the PDP Law (2022) emphasises the accuracy and accountability of data, insisting that information be correct and verifiable. It also mandates the implementation of adequate security and confidentiality measures to prevent unauthorised access or disclosure. Storage limitation principles ensure that data must be erased or destroyed once its retention period has expired. Finally, the law introduces the principle of demonstrable responsibility, which obligates data controllers to maintain evidence of compliance with all applicable data protection standards.

The failure to adhere to these principles may result in what the Law categorises as a "personal data protection failure". As defined in Article 46(1) of the PDP Law (2022), this failure encompasses any breach of confidentiality, integrity, or availability of personal data, whether intentional or accidental. It includes security violations that result in the destruction, loss, modification, disclosure, or unauthorised access to personal data. At this point of failure, the rights of the data subject are directly harmed. Moreover, personal data breaches may be classified according to the source or cause of the breach. These may include:

- 1) internal breaches, such as employee negligence or intentional leaks for financial gain (e.g., espionage or lack of encryption);
- 2) external breaches, including cyberattacks, phishing, malware infections, or unauthorised third-party access.

This classification is critical in determining the degree of liability, the nature of sanctions, and the relevant administrative measures to be taken. The Indonesian legal framework, while normatively robust, still lacks clearly defined

mechanisms for accountability in cases where these principles are violated, particularly regarding the legal consequences for failure to prevent such breaches. Comparatively, under the GDPR (2016) framework, a breach not only triggers legal liability but also administrative obligations such as prompt notification to the supervisory authority and affected individuals, documentation of the breach, and immediate mitigation measures. The administrative response becomes a measure of institutional responsibility and the seriousness with which data protection principles are implemented. (Maleno & Kusumawati, 2024)

In conclusion, both Indonesian and EU legal frameworks conceptualise data breaches as critical violations that infringe on the individual's right to privacy. However, the administrative response and procedural clarity in addressing such failures, especially in terms of enforcement, remedies, and institutional oversight, are stronger and more operationalised in the EU context. For Indonesia, bridging this gap requires not only comprehensive legislation but also an enforceable administrative infrastructure to uphold the principles of personal data governance.

Tokopedia data breach and the limits of judicial and administrative redress in Indonesia. As established in the preceding sections, the processing of personal data must guarantee the rights of data subjects at every stage. Articles 5-15 of the PDP Law (2022) outline those rights, including the right to clear information regarding the identity and legal basis of the data processor, the purpose of data collection, the right to delete or terminate processing, and the right to file claims and receive compensation for the unlawful or unauthorised use of personal data. One of the earliest and most publicised legal cases involving a data breach in Indonesia is the 2020 Tokopedia data breach, where approximately 91 million user accounts were compromised. The Indonesian

Consumer Community filed a lawsuit against both PT Tokopedia and the Ministry of Communication and Information (Kominfo), seeking IDR 100 billion in damages. The claim was based on allegations that Tokopedia had failed to implement adequate information security systems, leading to a massive data leak. The lawsuit was filed on 8 May 2020 under the Judgement of the Central Jakarta District Court in Case No. 235/PDT.G/2020/PN.JKT.PST (2022), categorising the case as an unlawful act (tort), due to resulting immaterial damages suffered by the users.

According to the plaintiff, the breach fell within the scope of “unforeseen loss” caused by an unlawful act, as stipulated in Article 59(2) (g) of Government Regulation of the Republic of Indonesia No. 80 (2019). In its claims, KKI requested the court to issue both provisional and final orders, including an injunction to temporarily suspend Tokopedia's electronic system operations during the trial process. Additionally, they demanded that Tokopedia notify all affected users in writing, detailing which categories of personal data had been accessed by third parties without user consent. Furthermore, they requested Kominfo to revoke Tokopedia's registration as an electronic system provider. In response, Tokopedia maintained that it had always prioritised the confidentiality and security of user data, characterising its platform as a “business of trust”. The company stated that no sensitive user data, such as passwords, had been compromised despite the attack. The company asserted that “no critical information such as passwords was successfully leaked”, emphasising that while a breach had occurred, sensitive data was protected.

After extensive proceedings, the case reached the Supreme Court, which issued a final ruling on 15 June 2022, rejecting the cassation appeal by KKI (Judgement of the Central Jakarta District Court in Case No. 235/PDT.G/2020/PN.JKT.PST, 2022). The Court reasoned that the law-

suit against the Ministry of Communication and Information constituted a challenge to the administrative acts as regulated by Article 87 of Government Regulation of the Republic of Indonesia No. 30 (2014). Therefore, the claim fell under the jurisdiction of the Administrative Court (PTUN), as opposed to the General Court. However, Tokopedia, as a private sector entity, complicated the jurisdictional boundaries, raising questions about the proper legal venue for mixed public-private liability in data breach cases (Hasan, 2024).

This outcome illustrates a significant limitation in Indonesia's current legal framework for personal data protection: the absence of an effective judicial or administrative mechanism for individual compensation claims. No precedent currently exists in Indonesia where a court has upheld a compensation claim by data subjects for breach-related damages. The lack of enforcement clarity, especially regarding whether cases should be adjudicated in general courts or administrative courts, creates a regulatory vacuum, undermining the right to redress.

While the PDP Law (2022) contains general provisions on compensation (damages), it delegates the procedural specifics to future government regulations. The Draft Government Regulation of the Republic of Indonesia "Implementing Regulations of Law Number 27 of 2022 Concerning Personal Data Protection" (2023) has since been circulated and addresses compensation in Articles 115-120. It recognises both material and immaterial losses, mandating that compensation may be paid in monetary form based on the extent of the loss experienced by the data subject. To claim compensation, data subjects must submit:

- 1) proof of the breach;
- 2) evidence of material or immaterial loss;
- 3) evidence linking the breach to the data controller or processor;
- 4) documentation of which data was compromised.

According to Article 120 of the Draft Government Regulation of the Republic of Indonesia "Implementing Regulations of Law Number 27 of 2022 Concerning Personal Data Protection" (2023), if a data controller or processor rejects or fails to fulfil the compensation request, the data subject may file a dispute resolution request with the personal data protection authority. This dispute mechanism may result in a) an agreement on the form and amount of compensation; b) specific guarantees to prevent the recurrence of the data breach or harm.

Notably, the PDP Law (2022) and its accompanying draft regulations do not provide direct access to courts for compensation claims, an omission that raises crucial questions regarding the judicial accountability and access to justice. Whether such administrative dispute resolution will be effective in practice is uncertain and warrants critical examination. In the absence of a functioning data protection authority and clear administrative enforcement pathways, the Tokopedia case exposes systemic challenges in implementing the right to compensation under Indonesia's legal regime. Therefore, this case study exemplifies the urgent need for clearer administrative mechanisms, a designated enforcement authority, and better-defined jurisdictional procedures for pursuing personal data breach claims in Indonesia. Comparative insights from other jurisdictions, particularly the European Union, offer a potential model for structuring an enforceable, dual-track compensation system that includes both administrative and judicial redress.

Comparative review: the right to compensation and liability under the GDPR. The GDPR (2016) provides a comprehensive legal framework for the protection of personal data and the enforcement of data subject rights. It applies not only to all 27 EU Member States but also to countries in the European Economic Area (EEA). One of the central features of the GDPR is

its recognition of the right to compensation and the legal liability of both data controllers and processors in cases where personal data is processed in violation of the Regulation. This right is codified in Article 82 of the Regulation, titled “Right to Compensation and Liability”, which states that any individual who has suffered material or non-material damage as a result of a violation of the Regulation is entitled to receive compensation from the responsible controller or processor. The provision is structured as follows:

1) any person who suffers damage, either material or non-material, due to an infringement of the GDPR is entitled to receive compensation from the controller or processor responsible for the damage;

2) controllers are liable for damage resulting from any unlawful processing activity, while processors are liable only if they failed to processor-specific obligations or acted beyond or against the controller’s instructions;

3) liability may be avoided if the controller or processor proves that it is not in any way responsible for the event giving rise to the damage;

4) in joint-processing situations, each controller or processor involved may be held jointly and severally liable to ensure full and effective compensation;

5) a controller or processor that pays full compensation retains the right to seek proportional reimbursement from other parties involved, based on their share of responsibility – Article 82 of GDPR (2016).

Importantly, Article 82(6) affirms the data subject’s right to bring compensation claims before the competent national court of the relevant Member State, following Article 79(2). This integration of judicial redress into the data protection regime underscores the GDPR’s commitment to not only substantive but also procedural justice.

Further clarification is provided in GDPR (2016), which outlines the interpretive

principles for Article 82. It confirms that “damage” should be interpreted broadly according to the case law of the Court of Justice of the European Union (CJEU). This includes recognising both pecuniary and non-pecuniary damage and ensuring that data subjects receive full and effective compensation. The Recital also reiterates that controllers or processors must compensate for any damage resulting from unlawful processing; they may be exempt from liability if they demonstrate a complete absence of responsibility; in cases involving multiple actors, joint and several liability ensures that victims are not left uncompensated due to complexities in legal attribution (Judgment of the Court of Justice (Eighth Chamber) in Case No. C507/23, 2024).

Although the GDPR (2016) mandates compensation, it does not provide specific standards for assessing the scope or amounts of damages. This discretion is left to national courts of each Member State, which are obliged to apply domestic procedural law in harmony with GDPR principles of equivalence and effectiveness. This ensures consistency in protecting fundamental rights across the EU while respecting domestic legal autonomy. To guarantee enforcement, Article 51 GDPR requires each Member State to establish at least one independent public authority, known as a data protection authority, responsible for monitoring compliance with the Regulation. DPAs are empowered not only to supervise the application of GDPR provisions but also to investigate complaints, issue warnings, and impose administrative fines. In serious breach cases, DPAs may also mandate the payment of compensation or refer matters for judicial enforcement.

Thus, the GDPR offers a dual-track enforcement model: administrative enforcement through independent DPAs with investigatory and sanctioning powers and judicial enforcement through national courts, enabling individuals to assert their rights and seek damages (Oliver Yaros & Ana

Hadnes Bruder, 2023). This robust legal architecture stands in contrast to the current framework in Indonesia, where the absence of a functional data protection authority and unclear judicial mechanisms for compensation continue to hinder the exercise of data subject rights. While the Indonesian PDP Law mandates compensation in general terms, the GDPR goes further by establishing clear standards of liability, structured redress procedures, and the institutional capacity necessary to ensure compliance and accountability.

Key differences and implications: Indonesia's PDP Law vs the GDPR. The comparative review of Indonesia's PDP Law (2022) and the

European Union's GDPR (2016) revealed significant structural and procedural differences in how each jurisdiction addresses the right to compensation and legal liability for data breaches. While both legal frameworks recognise the protection of personal data as a fundamental right, the implementation mechanisms for redress and enforcement diverge substantially. These differences have critical implications for the effectiveness of data protection regimes, particularly regarding administrative oversight, judicial enforcement, and the clarity of liability principles. Table 1 presents a synthesised comparison of key legal features.

Table 1. Comparison of Indonesia's PDP Law and the EU's GDPR

Aspect	PDP Law (2022)	GDPR (2016)
Right to compensation	Recognised (Article 58); procedural mechanism not yet fully operational	Recognised (Article 82); enforced through judicial mechanisms
Types of damage	Material and non-material losses acknowledged in Draft Government Regulation	Material and non-material damage explicitly protected; broad interpretation mandated by Recital 146
Enforcement body	Planned data protection authority (not yet fully established)	Independent DPAs operating in all EU Member States
Judicial access	No direct court access provided for compensation; redress through administrative dispute mechanisms only	Direct access to competent national courts guaranteed under Article 79(2) and Article 82 GDPR
Liability structure	Liability assigned to controllers/processors; criteria under development	Controllers and processors are jointly/severally liable; defined scope for exemption and recourse
Administrative oversight	Not yet enforced; implementation of oversight body pending	Active, independent administrative enforcement with the power to issue fines, investigate, and impose sanctions
Clarity of procedure	General provisions in the Law; detailed procedural steps deferred to implementing regulations	Full procedural clarity in GDPR and supported by CJEU case law
Public notification and breach reporting	Regulated but not systematically enforced	Mandatory breach notification to DPA and affected data subjects within 72 hours

Source: compiled by the authors of this study

These distinctions underscore several critical deficiencies in Indonesia's current data protection enforcement framework. Firstly, there is an institutional gap resulting from the absence of a fully operational data protection authority with the legal mandate to investigate personal data breaches and impose administrative sanctions. This gap limits proactive enforcement and regulatory

oversight. Secondly, judicial ambiguity continues to be a persistent issue, as exemplified by the Tokopedia data breach case, where jurisdictional uncertainty arose due to the involvement of both public and private entities. The case highlighted a lack of clear procedural guidelines for handling data-related claims in Indonesian courts. Thirdly, and perhaps most significantly, the legal

architecture offers limited redress for victims of data breaches. Without direct judicial mechanisms or a robust system of remedies, individuals are unable to effectively claim compensation, a shortcoming that stands in contrast to international human rights norms guaranteeing the right to an effective remedy (Judijanto *et al.*, 2024).

To bridge these enforcement and procedural gaps and bring Indonesia's data protection regime in line with global standards, several key reforms are necessary. The foremost priority is the establishment and empowerment of an independent Personal Data Protection Authority with clearly defined administrative powers, including investigatory and sanctioning functions. In parallel, the PDP Law and its implementing regulations must codify judicial redress mechanisms that allow data subjects to bring claims directly before competent courts. Furthermore, the legal framework should introduce binding procedural rules for compensation claims, addressing issues such as burden of proof, admissibility of claims, and the assessment of material and immaterial harm. Finally, a dual-access system should be instituted, ensuring that data breach victims have the option to pursue both administrative and judicial remedies. Such reforms are essential to operationalise the right to data protection and to uphold the broader constitutional commitment to individual privacy and legal accountability.

Administrative disputes in the enforcement of data protection obligations in Indonesia. The enforcement of personal data protection in Indonesia not only involves private and judicial claims but also opens a significant pathway for administrative dispute resolution, especially

where violations concern procedural or compliance failures by data controllers or processors. These administrative disputes are increasingly central in a legal system transitioning toward a comprehensive data governance framework (Al-gamar & Ismail, 2023).

The PDP Law (2022), specifically Article 64, acknowledges that disputes arising from personal data violations may be resolved through arbitration, courts, or alternative dispute resolution mechanisms. However, the Law does not explicitly classify the nature of these disputes as civil, criminal, or administrative, nor does it delineate jurisdiction when the parties include both private and public actors. This ambiguity is partially addressed in the Draft Government Regulation of the Republic of Indonesia "Implementing Regulations of Law Number 27 of 2022 Concerning Personal Data Protection" (2023), which maps out the typologies of disputes and clarifies the role of administrative bodies in enforcement.

Administrative violations form a crucial dimension of enforcement under the PDP Law (2022), targeting procedural and regulatory failures committed by data controllers and processors. Codified in Articles 20-56, these obligations are foundational to lawful data governance. When breached, they give rise to administrative disputes that fall under the jurisdiction of the PDA – a body still awaiting operationalisation. Unlike civil or criminal violations, these infractions focus on compliance failures and procedural neglect, underscoring a regulatory rather than punitive approach. To illustrate the scope of such violations, Table 2 maps key categories of administrative breaches to their corresponding legal provisions.

Table 2. Categories of administrative violations under Indonesia's PDP Law (2022)

Administrative violation	Description	Legal basis
Unlawful data processing	Data processed without legal justification	Article 20
Lack of processing transparency	Failure to inform data subjects clearly and promptly	Article 21
Consent management failures	Inability to demonstrate valid consent from users	Articles 24-26

Table 2. Continued

Administrative violation	Description	Legal basis
Data integrity neglect	Errors in data accuracy or absence of impact assessments	Articles 29-34
Security and breach notification failures	Missing safeguards or delay in breach disclosures	Articles 35-46
Non-compliance with subject rights	Denial of rights such as access, correction, and erasure	Articles 32-44
Oversight disobedience	Failure to appoint Data Protection Officers or follow DPA instructions	Articles 51-53
Unauthorised cross-border transfers	Transferring personal data abroad without safeguards	Articles 55-56

Source: compiled by the authors of this study

Each of these violations constitutes an administrative breach rather than a mere civil wrongdoing. Article 57 of the PDP Law (2022) grants enforcement powers to the Data Protection Authority, authorising sanctions that range from written warnings to severe financial penalties. Specifically, the Law prescribes written warnings as a first response to non-compliance, temporary suspension of data processing operations, mandatory erasure or destruction of unlawfully obtained data, administrative fines of up to 2% of the violator's annual revenue. These penalties are distinctively non-judicial; they are to be imposed administratively rather than through the courts. The mechanisms for assessing these violations, determining sanctions, and handling appeals are expected to be fully elaborated in a forthcoming Government Regulation. This structure closely mirrors global best practices, particularly the GDPR (2016) framework, where DPAs play a central role in monitoring and enforcing data governance through independent administrative power.

Yet, several challenges persist. The current lack of a functioning DPA severely limits the enforceability of these administrative provisions. Moreover, procedural ambiguities, such as unclear jurisdiction and undefined appeal pathways-complicate the legal landscape. The Tokopedia case, for instance, highlighted the overlap between administrative and civil remedies, revealing the urgent need for clearer legal classifications and institutional coordination. To fully act on the PDP Law's (2022) promise of effective data

protection, Indonesia must not only operationalise its supervisory authority but also establish a transparent, accessible administrative dispute mechanism. This should include clear procedural rules, enforcement pathways, and a well-publicised framework for handling violations. Only through such reforms can the balance between individual rights and institutional responsibility be meaningfully maintained.

The findings of this study revealed substantial institutional and procedural gaps in Indonesia's current data protection regime. Based on these findings, and compared to the GDPR (2016) framework, several policy-oriented recommendations can be made. Firstly, the establishment of an independent and fully empowered DPA is imperative. As observed in EU jurisdictions, a structurally autonomous DPA with investigatory and sanctioning powers ensures both preventive and corrective enforcement. The absence of such an institution in Indonesia continues to be a major institutional gap. Secondly, the lack of judicial redress mechanisms for data breaches must be addressed. Unlike the GDPR (2016), which guarantees direct access to courts under Article 79(2) and 82, the Indonesian PDP Law (2022) still relies on future implementing regulations to operationalise compensation. Judicial procedures for claiming damages, particularly standards of proof, jurisdiction, and admissibility, must be clearly codified. Thirdly, to reinforce regulatory compliance, detailed procedures for administrative sanctions and appeals should be developed. The

GDPR (2016) offers a model where penalties are governed by transparent guidelines, including the right to appeal and proportionality in sanctioning. Indonesia's legal framework should emulate this clarity. Fourthly, mandatory breach notification standards must be clearly enforced. Prompt and transparent reporting of data breaches is not yet systematically practiced in Indonesia. GDPR Article 33 and 34 mandate prompt notification to authorities and data subjects, standards that should be reflected in Indonesian regulations to ensure accountability. Fifthly, the legal relationship between administrative and civil liability should be clarified. The Tokopedia case illustrates how overlapping jurisdictions can lead to procedural confusion and delays in enforcement. Legal reforms must establish when a claim should be resolved through administrative mechanisms or the courts, avoiding jurisdictional fragmentation. Sixthly, capacity building in digital forensics and cyber investigation should be prioritised. Regulatory staff, judges, and law enforcement officials require specialised training to interpret and apply data protection norms effectively. This includes developing technological competencies for breach investigation and evidence evaluation. Lastly, Indonesia should promote regional cooperation and harmonisation through ASEAN. Aligning cross-border data protection standards, enabling joint investigations, and coordinating enforcement with regional partners will enhance cybersecurity and regulatory effectiveness. These recommendations are designed not only to bridge the current legal and institutional gaps but also to transform data protection into a truly enforceable right in Indonesia. An integrated approach that merges regulatory, judicial, and regional strategies is essential for building a trustworthy digital environment.

This findings of this study affirm that personal data protection in Indonesia currently lacks cohesive enforcement mechanisms, especially concerning compensation for victims of data

breaches. These findings resonate with those of A. Saputra (2020) and F.N. Heriani (2020) who analogously concluded that overlapping jurisdictions and fragmented enforcement limit legal redress. However, the present analysis offers a more precise breakdown of institutional gaps, particularly the absence of an operational Data Protection Authority and the lack of binding procedural remedies, adding depth to their conclusions.

Conversely, Article 82 of the GDPR (2016) guarantees the right to compensation for both material and non-material harm arising from infringements, imposing liability on controllers and processors. Jurisprudence, especially the CJEU's ruling in Judgment of the Court of Justice in Case No. C-300/21 (2023), clarifies that mere breaches do not automatically entitle compensation; data subjects must demonstrate factual damage and causation, while national law retains flexibility in setting damage thresholds. The present findings reinforced these principles by showing that both controllers and processors are more likely to adopt preventive measures when legal obligations and enforcement structures are clearly defined. However, in contrast to the EU framework, the present study emphasised Indonesia's intricate jurisdictional relationships, arguing that both judicial access and administrative clarity are necessary for successful reform.

N. Lomas (2023) emphasised the judicial interpretation of "non-material damage" as expanding the scope of victims' rights. The judicial outcomes in the Tokopedia case do not align with this trend. The dismissal by the Central Jakarta District Court and the Supreme Court's refusal to address dual liability illustrate a contrasting reality where judicial recourse is still tenuous. The divergence likely stems from differences in institutional maturity and normative frameworks between EU and Indonesian courts. Analogously, A.A. Rahman and G. Greenleaf (2023) emphasised that the establishment of independent data

protection authorities significantly improves the enforcement of privacy rights, particularly in emerging legal systems. The present study supported the researchers' observation by showing that without an operational authority, Indonesian enforcement continues to be largely aspirational and lacks accountability mechanisms.

These comparative insights also resonate with F. Syrlybayeva *et al.* (2024), who identified institutional ambiguity as a barrier to data protection in Kazakhstan. Admittedly, the findings of the present study suggest that analogous institutional ambiguity in Indonesia likewise obstructs data governance clarity. Both studies converge on the conclusion that legal certainty and robust institutions are indispensable. Lastly, O. Lynskey's (2023) call for harmonised legal standards across jurisdictions gains greater relevance in light of the findings presented herein. The divergence between Indonesian enforcement and international norms underscores the imperative for legal alignment and cross-jurisdictional consistency.

In summary, this comparative engagement illustrates critical gaps between Indonesian and EU data protection frameworks. Differences in judicial interpretation, enforcement institutions, and procedural clarity highlight systemic challenges. These divergences may be attributed to Indonesia's evolving institutional design and legislative infancy. The study demonstrates that without a functioning supervisory authority and streamlined jurisdictional frameworks, the protection of data subjects' rights continues to be compromised.

Conclusions

The present study examined the legal administrative liability frameworks for personal data breaches in Indonesia and the European Union, with a particular emphasis on the right to compensation. The findings revealed that although Indonesia's Personal Data Protection Law recognises the significance of safeguarding personal data

and the rights of data subjects, its enforcement mechanisms, both judicial and administrative, are still underdeveloped. The case study of the Tokopedia data breach exemplifies how the absence of procedural clarity, institutional capacity, and legal precedent has rendered data subjects unable to access effective remedies for immaterial harm.

In contrast, the European Union's General Data Protection Regulation offers a structured and enforceable model. It provides a comprehensive basis for assigning liability to data controllers and processors and guarantees the right to compensation through both judicial proceedings and administrative oversight. The GDPR also empowers independent Data Protection Authorities to impose sanctions, investigate breaches, and implement dispute mechanisms that are notably lacking or inactive in the Indonesian context. These differences underscore the urgent need for Indonesia to strengthen its legal and institutional infrastructure. A functional and independent data protection authority must be established, procedural norms for compensation claims must be codified, and judicial access for data subjects should be ensured. Administrative law must play a more prominent role in supporting personal data protection, especially in regulating the conduct of both private and public entities engaged in data processing activities.

Prospects for further research include a comparative study of data breach litigation trends in ASEAN countries, the role of digital forensics in administrative investigations, and the integration of artificial intelligence accountability within data protection regimes. As personal data continues to shape global digital ecosystems, the development of a coherent and enforceable administrative legal liability system will be essential to protect individual rights and ensure public trust.

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Conflict of Interest

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Адміністративна та юридична відповідальність за порушення захисту даних: забезпечення права на компенсацію в Індонезії та ЄС

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Анотація

Захист персональних даних став фундаментальною проблемою як у правовій теорії, так і в управлінні через експоненціальне зростання цифрових екосистем. З акцентом на праві на компенсацію для постраждалих сторін, у цьому дослідженні критично оцінено інституційну та правову базу Індонезії, щодо вирішення питань порушення персональних даних. Аналіз, в якому

використано доктринальні методи юридичних досліджень, було зосереджено на Загальному регламенті про захист даних Європейського Союзу, Постанові уряду Індонезії № 71 від 2019 року та Законі про захист персональних даних, зокрема статті 82, яка передбачає компенсацію як матеріальної, так і нематеріальної шкоди. Результати дослідження вказали на серйозні інституційні недоліки в правовій системі Індонезії. Порушення безпеки даних Tokopedia у 2020 році, яке торкнулося понад 91 мільйона користувачів, є прикладом відсутності інституційного нагляду та процедурної ясності. Посилаючись на застосовність адміністративної юрисдикції відповідно до Закону про державне управління, Центральний районний суд Джакарти відхилив справу на підставі юрисдикції. 15 червня 2022 року Верховний суд підтвердив це рішення. Хоча компенсація передбачена статтею 58 Закону про захист персональних даних, механізми реалізації цього положення ще не розроблені. З іншого боку, Загальний регламент про захист даних гарантує суб'єктам даних ефективні засоби правового захисту, вимагаючи як адміністративного нагляду через незалежні наглядові органи, так і доступу до судової системи. У дослідженні зроблено висновок, що Індонезія повинна гармонізувати структури відповідальності державного та приватного секторів, кодифікувати чіткі процедурні засоби правового захисту та створити уповноважений орган з захисту даних. Аналіз Загального регламенту про захист даних підкреслив, наскільки важливими для захисту персональних даних та відновлення довіри громадськості є подвійний підхід до забезпечення дотримання законодавства, права, що підлягають примусовому виконанню, та інституційна автономія

Ключові слова: адміністративне вирішення спорів; системи компенсаційної справедливості; інституційна підзвітність; процедурні правові механізми; зловживання персональними даними; засоби правового захисту у разі порушення права на приватність

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