

## Investigation Methods of Combating Smuggling and Suspicious Trade Through Transport Routes: Ukrainian Case

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### ABSTRACT

Smuggling poses a threat both to individuals and to national security. The problem of smuggling is complicated by the constant transformation of criminal schemes, thereby urging the search for appropriate investigation methods of this offense. The aim of the research is to improve the methods of investigation of smuggling through the integration of legislative, international, human, and technical resources. The research employed a doctrinal approach, a statistical method, and a descriptive method. As a result of the research, the Ukrainian legislation on combating smuggling was analysed in the context of European integration. It is noted that the criminalization of smuggling of goods is a welcome innovation, but the legislative framework needs further improvement. The legal basis of Ukraine's international cooperation in the investigation and countering of smuggling has been disclosed. The priority forms of cooperation were determined and directions for further improvement were revealed using the experience of several international initiatives. The value of human capital in combination with the latest technologies in the process of investigating crimes related to smuggling is noted. The obtained conclusions can be useful for regulatory bodies in the context of developing anti-smuggling policies based on identified priority areas.

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## 1. Introduction

The global experience of combating crime shows that smuggling is a widespread offence in many countries, which poses significant threats not only to individuals but also to national

security.<sup>1,2,3</sup> Besides, new criminal mechanisms of smuggling appear with time,<sup>4</sup> which requires the appropriate development of its detection and investigation methods.<sup>5</sup> The threats caused by smuggling range from economic threats<sup>6</sup> (for example, in the case of goods smuggling) to threats to the health and lives of citizens<sup>7,8,9</sup> (smuggling of drugs, weapons, explosives, etc.). The problem of smuggling is particularly acute when there are internal or external conflicts in the country<sup>10</sup>, especially when it comes to the smuggling of weapons and explosive items.<sup>11</sup> The problem of smuggling also deepens because of the imperfection of the legislative framework<sup>12</sup>, inadequate cooperation between the state and stakeholders, lack of international cooperation, and corruption.<sup>13</sup> However, there are frequent cases when smuggled goods were brought into the country because of inappropriate methods of investigation, imperfect methods of detecting hidden items, lack of experience of responsible persons or lack of proper equipment.<sup>14</sup> This determines the relevance of studying smuggling investigation methods, which may include both traditional investigation methods and the

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<sup>1</sup> Rendi Prayuda and Tulus Warsito, 'Problems Faced by ASEAN in Dealing with Transnational Drug Smuggling in Southeast Asia Region', *Foresight*, 23.3 (2021), 353–66 <https://doi.org/10.1108/FS-12-2019-0106>.

<sup>2</sup> Roman Movchan and others, 'Combating Commodity Smuggling in Ukraine: In Search of the Optimal Legislative Model', *Revista Amazonia Investiga*, 10.47 (2021), 142–51 <https://doi.org/10.34069/ai/2021.47.11.14>.

<sup>3</sup> Corey Robinson, 'Offshoring and Outsourcing Anti-Smuggling Policy: Capacity Building and the Geopolitics of Migrant Smuggling', *Geopolitics*, 29.1 (2024), 13–38 <https://doi.org/10.1080/14650045.2022.2159385>.

<sup>4</sup> N Pujol-Cano and others, 'Liquid Cocaine Body Packing: A Rare Method for Drug Smuggling', *Clinical Toxicology*, 59.5 (2021), 445–47 <https://doi.org/10.1080/15563650.2020.1817480>.

<sup>5</sup> Daan van Uhm, Nigel South, and Tanya Wyatt, 'Connections between Trades and Trafficking in Wildlife and Drugs', *Trends in Organized Crime*, 24.4 (2021), 425–46 <https://doi.org/10.1007/s12117-021-09416-z>.

<sup>6</sup> Anatolii Kulish and others, 'Smuggling as a Threat to Economic Security of the State', *Entrepreneurship and Sustainability Issues*, 8.3 (2021), 384–99. <https://doi.org/10.9770/jesi.2021>.

<sup>7</sup> Farzaneh Mahmoudi Meymand, Amirhossein Takian, and Ebrahim Jaafaripooyan, 'The Challenges Associated with the Prevention of Smuggling and Counterfeiting Health Goods in Iran.', *BMC Public Health*, 24.1 (2024), 1564. <https://doi.org/10.1186/s12889-024-18637-0>.

<sup>8</sup> Nina Mladinić, Šime Jozipović, and Marko Perkušić, 'The Danger of Organized Crime in the Area of Falsification of Medicines and Medical Products (Profit vs. Right to Health)', *EU and Comparative Law Issues and Challenges Series (ECLIC)*, 8.SE-Articles (2024), 113–39. <https://doi.org/10.25234/eclic/32273>.

<sup>9</sup> Juan Pablo Aschner and Juan Carlos Montero, 'Architectures, Spaces, and Territories of Illicit Drug Trafficking in Colombia and Mexico', *Crime, Media, Culture*, 17.3 (2020), 327–51. <https://doi.org/10.1177/1741659020910212>.

<sup>10</sup> Jana Koehler, 'Business Process Innovation with Artificial Intelligence: Levering Benefits and Controlling Operational Risks', *European Business & Management*, 4.2 (2018), 55. <https://doi.org/10.11648/j.ebm.20180402.12>.

<sup>11</sup> Max Gallien and Florian Weigand, 'Channeling Contraband: How States Shape International Smuggling Routes', *Security Studies*, 30.1 (2021), 79–106. <https://doi.org/10.1080/09636412.2021.1885728>.

<sup>12</sup> Paul B. Stephan, 'The Crisis in International Law and the Path Forward for International Humanitarian Law', *International Review of the Red Cross*, 104.920–921 (2022), 2077–96. <https://doi.org/10.1017/S1816383122000285>.

<sup>13</sup> Robayt Khondoker, 'Regulation and Contraband Trade in the Bangladeshi Borderland: Whose Weapons?', *Journal of Borderlands Studies*, 36.4 (2021), 617–36. <https://doi.org/10.1080/08865655.2019.1685400>.

<sup>14</sup> Diana Kim and Yuhki Tajima, 'Smuggling and Border Enforcement', *International Organization*, 76.4 (2022), 830–67 <https://doi.org/10.1017/S002081832200011X>.

latest technological developments<sup>15,16</sup> that help the investigation process.<sup>17</sup> The aim of the research is to improve the methods of investigation of smuggling through the integration of legislative, international, human, and technical resources. The aim involved the fulfilment of the following research objectives:

- a. Conduct an analysis of the legislative framework of Ukraine in the context of adaptation to international standards;
- b. To study international experience and cooperation in the field of combating smuggling; and
- c. To reveal the value of human capital combined with technological methods of smuggling investigation.

## 2. Literature Review

Theoretically, the research is based on a few criminological theories and concepts related to organized crime, smuggling, and transnational crime. One of the leading concepts considered in the research process is the concept of securitization. The concept made it possible to analyse smuggling as a type of transnational organized crime that does not pose a military threat, but contains risks of an economic, social and political nature. The work considers the theoretical approaches of scientists from the theory of regulation, in which coercion is one of the important tools for compliance with existing rules and norms.<sup>18</sup> The research approaches from criminology presented below also influenced the results of the author's research in the context of the process of investigating smuggling crimes. The researchers who study smuggling investigation methods most often cover the key problems that cause the increased threat of smuggling in certain regions<sup>19,20</sup>. They also identify countermeasures both traditional and new, including with the use of the latest technologies. The researchers often describe the methods of realizing criminal schemes along with the methods of investigating smuggling, because this information is key to a successful investigation.

Tkachova studies the problems of investigative countermeasures against firearms smuggling crimes under martial law. The researcher determined that the main related problems in Ukraine include the large-scale arrival of smuggled weapons from the occupied territories of Donetsk and Luhansk regions, the high level of criminalization in these regions, as well as the insufficient development of the border regions.<sup>21</sup> Shevchuk and Kotiuk explore numerous

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<sup>15</sup> Weixin Bian and others, 'A Multidimensional Adaptive Perception Model for Security Contraband Detection', *SSRN Electronic Journal*, 09.5 (2024), 7352–63. <https://doi.org/10.2139/ssrn.4654396>.

<sup>16</sup> Ning Gan and others, 'YOLO-CID: Improved YOLOv7 for X-Ray Contraband Image Detection', *Electronics (Switzerland)*, 12.17 (2023). <https://doi.org/10.3390/electronics12173636>.

<sup>17</sup> Morgan Tebei Nwati, 'The Anglophone Crisis: The Rise of Arms Trafficking and Smuggling, Its Effects on the Two English Regions of Cameroon', *Advances in Applied Sociology*, 11.1 (2021), 1–13 <https://doi.org/10.4236/aasoci.2021.111001>.

<sup>18</sup> Rita de la Feria, 'Tax Fraud and Selective Law Enforcement', *Journal of Law and Society*, 47.2 (2020), 240–70. <https://doi.org/https://doi.org/10.1111/jols.12221>.

<sup>19</sup> J Eliaerts and others, 'Challenges for Cocaine Detection in Smuggling Samples', *Forensic Science International*, 319 (2021), 110534. <https://doi.org/10.1016/j.forsciint.2020.110534>.

<sup>20</sup> George Galanakis and others, 'A Study of 3D Digitisation Modalities for Crime Scene Investigation', *Forensic Sciences*, 1.2 (2021), 56–85. <https://doi.org/10.3390/forensicsci1020008>.

<sup>21</sup> Vita Tkachova, 'Problems of Operational and Investigative Countermeasures by Criminal Police Units Against Smuggling of Firearms or Ammunition in Conditions of Martial Law', *Modern Problems of Legal, Economic and Social Development of the State*, 1.1 (2023), 79–80. <https://doi.org/dspace.univd.edu.ua/handle/123456789/19331>.

methods of smuggling weapons and ammunition both outside customs control and concealment from customs control. The researchers identified the most common places where smuggled items were hiding. They note that it would be appropriate to develop a certain catalogue that would contain probable options for hiding smuggled items in various vehicles, etc. to improve the methodology of investigative actions in Ukraine.<sup>22</sup> Some researchers noted the appropriateness of using technological methods to detect traces of smuggling. Forbes et al. cover the possibilities of using the mass spectrometry method to detect traces of drugs and explosives.<sup>23</sup> Daruka explores advanced methods of detecting explosive materials, also focusing on the characteristics of some explosive materials and the unusual methods of transporting them.<sup>24</sup> Ricci et al. consider the possibilities of recent advances in forensic medicine, a method involving the use of dogs to search for drugs, weapons, explosives, etc.<sup>25</sup>

Musa et al. examine the safety issues associated with using unmanned aerial vehicles.<sup>26</sup> Researchers note the possibility of smuggling drugs and other items among the threats generated using such devices. The paper reveals the possibilities of drone detection by Forward Scattering Radar (FSR). Kumar and Kothari also reveal the increasing threats to national security using drones. The delivery of drugs, weapons and ammunition by such aerial vehicles and surveillance in restricted areas is a widespread and significant problem.<sup>27</sup> Derege et al. study the problems of illegal cross-border trade and smuggling using the example of Ethiopia.<sup>28</sup> Researchers identify that many people in border regions rely on smuggling for livelihoods and access to essential goods as key drivers of illegal activity. Their study establishes a connection between the quality of regulation and illegal activity. Prasetyo and Islamia identify the problems of regulation and legal enforcement in the context of the spread of firearms smuggling in Indonesia. Siyech revealed this problem using the example of India.<sup>29</sup> Leheza et al. focus on the legislative aspects of the problem, both at the national and international levels.<sup>30</sup>

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<sup>22</sup> V. Shevchuk and M. Kotiuk, 'Methods of Smuggling of Firearms And Ammunition in the Structure of Criminalistic Characteristics', *Collection of Scientific Papers ΛΟΓΟΣ*, 36.1 (2020), 8–13 <https://doi.org/10.36074/09.10.2020.v4.02>.

<sup>23</sup> Thomas P Forbes and others, 'Open Port Sampling Interface Mass Spectrometry of Wipe-Based Explosives, Oxidizers, and Narcotics for Trace Contraband Detection', *Analytical Methods*, 13.31 (2021), 3453–60 <https://doi.org/10.1039/D1AY01038G>.

<sup>24</sup> Norbert Daruka, 'Advanced Tools for the Explosive Materials Identification BT - Security-Related Advanced Technologies in Critical Infrastructure Protection', ed. by Tünde Anna Kovács, Zoltán Nyikes, and Igor Fürstner, *In Security-Related Advanced Technologies in Critical Infrastructure Protection: Theoretical and Practical Approach*, 2022, 455–69. [https://doi.org/10.1007/978-94-024-2174-3\\_39](https://doi.org/10.1007/978-94-024-2174-3_39).

<sup>25</sup> Giovanna Ricci and others, 'Use of Detection Dogs in Forensic Investigations: The Italian Scenario', *Romanian Journal of Legal Medicine*, 29.1 (2021), 69–73 <https://doi.org/10.4323/rjlm.2021.69>.

<sup>26</sup> Musa Surajo Alhaji and others, 'A Preliminary Investigation of Copter Drone Detection by Using Forward Scattering Radar', *Journal of Aerospace Engineering and Mechanics*, 6.1 (2022), 588–95 <https://doi.org/10.36959/422/465>.

<sup>27</sup> Tanay Kumar and Mangal Kothari, 'Insights to the Forensic Investigation of a Custom Built UAV', *Electrical Engineering and Systems Science*, 14.1 (2023), 1–16 <https://doi.org/10.48550/arXiv.2308.14494>.

<sup>28</sup> Alemayehu Derege, Abdi Ahmed, and Kasahun Nagesso, 'Unpacking the Hustles in Illegal Trade Practices and Control : Evidences from the Major Contraband Hotspots', *Research Square, Preprint*, 1.1 (2023), 1–33. <https://doi.org/10.21203/rs.3.rs-3654313/v1>.

<sup>29</sup> Mohammed Sinan Siyech, 'Arms Smuggling in India: Exploring Links between Crime and Terrorism', *Studies in Conflict & Terrorism*, 45.5–6 (2022), 445–62. <https://doi.org/10.1080/1057610X.2019.1678875>.

<sup>30</sup> Yevhen Leheza and others, 'Foreign Experience in Legal Regulation of Combating Crime in the Sphere of Trafficking of Narcotic Drugs, Psychotropic Substances, Their Analogues and Precursors: Administrative and Criminal Aspect', *Journal of Drug and Alcohol Research*, 12.4 (2023) <https://doi.org/10.4303/JDAR/236240>.

The literature review gives grounds to conclude that the investigation of smuggling involves numerous stages, and each individual case has its peculiarities related to the object of smuggling, the suspect's behaviour, the legal requirements of different countries, etc. Scene inspection occupies a special place in the smuggling investigation, making it possible to detect and prevent the crimes. The author's research emphasizes the importance of investigators' knowledge of methods of concealing prohibited items, which is the key to successfully detecting and investigating smuggled items. The importance of using modern technological methods of detecting smuggled items was emphasised.

### 3. Research Method

The first stage of the study reveals the legislative aspects of combating smuggling in Ukraine. At this stage, the essence of smuggling, possible methods of smuggling, the object of smuggling, the sequence of investigative actions (inspection of the scene of the incident, search, seizure and inspection of documents, appointment of forensic examinations, interrogation of witnesses, detention and interrogation of the suspect, tour of the area) were characterized. Also, this stage included a study of changes in legislation caused by transformational processes due to European integration are studied. The purpose of this stage was to identify the positive and negative consequences of standardization. The second stage is devoted to the study of the legal basis of Ukraine's international cooperation with other states in the context of combating smuggling. The main forms of cooperation are identified, as well as international initiatives to combat smuggling, which provides space for the formation of one's own approaches. The third stage emphasizes the importance of developing human capital alongside the use of technical means. The research was conducted using the information contained in the legislative framework of Ukraine. The country for the study was chosen because of the legal regime of martial law, which significantly increases the threats associated with the smuggling of weapons and explosives into the territory of the state. The following legislative documents were used for the analysis:

- a. Criminal Code of Ukraine No. 2341-III; and
- b. Draft Law of Ukraine "On Amendments to the Criminal Code of Ukraine and the Criminal Procedure Code of Ukraine on Criminalization of Smuggling of Goods and Excisable Goods, as well as False Declaration of Goods" No. 5420.

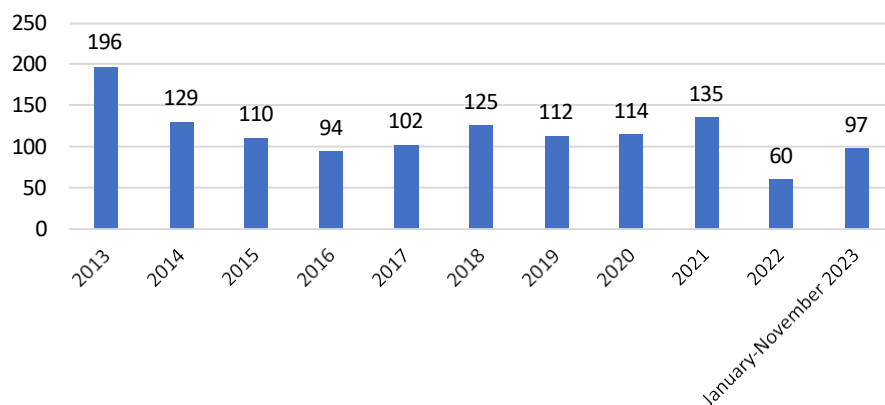
The information contained in the Uniform Reports on Criminal Offenses by the Prosecutor General's Office of Ukraine (2023) was used regarding the number of recorded criminal offenses under Article 201 of the Criminal Code of Ukraine for 2013-2023. While researching normative documents of Ukraine, in particular, the Criminal Code of Ukraine and the Criminal Procedural Code of Ukraine, the formal legal method was applied. This method made it possible to analyse these regulatory documents and identify the main principles regarding the definition, subject matter and responsibility for smuggling. In addition, the formal legal method was used to determine the legal basis of Ukraine's international cooperation with other states and organizations. This made it possible to reveal the main forms of international cooperation and subsequently make suggestions for improving cooperation in the field of information exchange. The use of the comparative legal method made it possible to characterize some innovations that were implemented in the legislation of Ukraine to harmonize them with international standards. This contributed to identifying the advantages and disadvantages of innovations emphasizing the need to observe the principle of systematicity. The statistical method was used to characterize the number of registered criminal offenses under Article 201 of the Criminal Code of Ukraine for the period from 2013 to 2023, which made it possible to characterize the trend of changes in the number of such



offenses during the period under study. The application of the literature analysis method and the descriptive method made it possible to explain the need to combine human intelligence with new technologies to increase the effectiveness of smuggling investigations.

#### 4. Result and Discussion

In recent years, Ukraine has implemented a few measures to combat smuggling, including the introduction of numerous amendments to the legislation in accordance with the requirements arising from European integration. However, the problem of smuggling is still acute and has a significant scale. According to statistics for 10 years (Figure 1), the volume of smuggling under Section 201 has not undergone a clear trend of decrease or increase.



**Figure 1.** The number of registered criminal offences for the corresponding period under Article 201 of the Criminal Code of Ukraine for 2013 to 2023 (built by the author according to Prosecutor General's Office of Ukraine)

The largest volume of registered criminal offenses for the corresponding period under the specified article was observed in 2013 (196 cases), the smallest - in 2022, when the full-scale invasion began (60 cases). However, already in 2023, the number of crimes under Article 201 of the Criminal Code of Ukraine began to increase again and reached 97 cases only in January-November of the corresponding year. This may be related to the adaptation of criminal schemes to new realities, and therefore the need to find effective countermeasures is quite urgent. The most typical reasons for the lack of positive dynamics are insufficient coordination between internal bodies and insufficient development of international cooperation. An important task of the government is also the further adaptation of national norms to international standards and the fight against abuses. Ultimately, an important shortcoming is the lack of technical capacity, funding, and highly qualified personnel.

##### 4.1. Adaptation of National Legislation to International Norms

Smuggling is the movement of certain items across the customs border, hidden from customs control or outside customs control. In the Criminal Code of Ukraine (Criminal Code of Ukraine, 2024), smuggling belongs to criminal offenses in the field of economic activity (Chapter VII of the Criminal Code of Ukraine), drug smuggling - to criminal offenses in the

field of circulation of narcotic drugs, psychotropic substances, etc. (Chapter XIII of the Criminal Code of Ukraine). The subject of contraband can be:<sup>31</sup>

- a. Cultural values, poisonous, powerful, explosive substances, radioactive materials, weapons or ammunition, etc. (Article 201 of the Criminal Code of Ukraine);
- b. Lumber or lumber of valuable and rare tree species, etc. (Article 2011 of the Criminal Code of Ukraine);
- c. Goods in a significant amount (Article 2013 of the Criminal Code of Ukraine - enters into force on July 1, 2024);
- d. Excise goods (except electrical energy (Article 2014 of the Criminal Code of Ukraine); and
- e. Narcotic drugs, psychotropic substances, their analogues or precursors or falsified medicinal products (Article 305 of the Criminal Code of Ukraine) (Criminal Code of Ukraine; On Amendments to the Criminal and Criminal Procedure Codes of Ukraine regarding the criminalization of goods smuggling).

Liability for smuggling may consist of imprisonment for the term specified in the above articles, fines, deprivation of the right to hold certain positions, confiscation of property. The imposed punishment depends on the severity of the crime, which takes into account:

- a. Volumes of smuggling (significant, large, especially large);
- b. Committed by a group of persons based on a prior conspiracy;
- c. Committed by persons previously convicted of smuggling;
- d. Committed by an official; and
- e. Committed by an organized group, etc.

For example, under Article 201, punishment is imposed in the form of deprivation of liberty for a term of 3 to 7 years, and if the act was committed by a prior conspiracy by a group of persons or a person previously tried for smuggling, or an official using an official position - for a term of 5 to 12 years with deprivation of the right to hold certain positions for a specified period and confiscation of property. Movement across the customs border outside of customs control is the transportation of goods bypassing customs control without proper formalities. Movement with concealment from customs control involves, first, the use of certain hiding places for contraband items or other ways to hide the fact of transporting these items. From the above, it can be noted that the investigation of smuggling crimes is a highly complex process that depends on many factors. Furthermore, each individual case of smuggling may have its own characteristics associated with the object of smuggling, the method of implementation of the criminal scheme, the behavior of the detainee, etc. Investigative actions also involve numerous procedures and stages. One of the most important of these actions is the inspection of the scene of the incident, which already at the initial stage of the investigation provides the most information and allows to tie the discovered contraband items to the scene of the incident.

The above-mentioned provisions are enshrined in the legislation of Ukraine, considering the changes caused by the transformational processes associated with the standardization of Ukrainian legislation in accordance with European norms and standards. The latest changes are related, among other things, to the recriminalization of smuggling of goods. This decision was made due to the prevalence of such crimes, as well as the low probability of criminal prosecution for smuggling. Other changes were made by the legislators regarding the clarification of the definition of contraband, the list of controlled goods, the introduction of

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<sup>31</sup> Rizaldy Anggriawan and others, 'Passenger Name Record Data Protection under European Union and United States Agreement: Security over Privacy?', *Hasanuddin Law Review*, 8.2 (2022), 95-110. <https://doi.org/10.20956/halrev.v8i2.2844>.

new categories of contraband, the strengthening of responsibility for certain articles, etc. Changes in the Criminal and Criminal Procedural Codes, on the one hand, are justified, on the other hand, they require further improvement. In particular, the placement of the norms on smuggling in the legislation, which violates the principle of systematicity, is controversial. The economic validity of the established fines and the inconsistency of the established punishment are also questionable. Such shortcomings can lead to increased legal uncertainty and failure to achieve the appropriate deterrent effect. These and other problems make it necessary to further harmonize national norms with international ones, considering national specifications and realities.

#### 4.2. International Experience and Cooperation

Ukraine closely cooperates with other states and organizations at the international level, the legal basis of which is its participation in a few conventions. Here we can mention the United Nations Convention against Transnational Organized Crime, the United Nations Convention on Combating Illicit Traffic in Narcotic Drugs and Psychotropic Substances, the International Convention on Mutual Administrative Assistance in Preventing, Investigating and Stopping Violations of Customs Law, the International Convention on simplification and harmonization of customs procedures, the European Convention on Mutual Assistance in Criminal Matters. The main forms of international cooperation within the framework of these conventions are the international exchange of information, joint anti-smuggling operations, extradition of persons guilty of smuggling, training and legal assistance, determination of determinants of crimes and identification of measures to eliminate them.<sup>32</sup>

Among the observed forms of cooperation, a special place is occupied by the exchange of information, because this direction is highly effective not only for investigation, but also for prevention and proactive response to threats. The analysis of international experience allowed us to testify that such leading countries as the United States of America (USA), Finland, Belgium, etc. in the process of investigation of smuggling they largely make use of wide possibilities of accumulation and processing of operative and investigative information. In turn, in Ukraine, information and analytical units have very narrow powers in this area in the process of criminal intelligence. Expanding access to specialized analytical platforms and strengthening technical aspects could mitigate this problem, on the one hand, and facilitate international information sharing, on the other. First, this will happen thanks to the integration of national databases with international ones and standardization. Today, Ukraine actively cooperates with Interpol (according to the order "On the approval of the Instructions and the procedure for the use by law enforcement agencies of the capabilities of the National Security Agency of Interpol in Ukraine in the prevention, detection and investigation of crimes"), as well as Europol. The development of such cooperation regarding the exchange of information, is one of the most promising areas of combating smuggling at the international level. It is worth noting separately the successful international initiatives that provide, among other things, the fight against smuggling, in particular:<sup>33</sup>

- a. Customs-Trade Partnership Against Terrorism or C-TPAT (USA) - provides for the development of partnerships between customs and the private sector in order to ensure the security of supply chains;

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<sup>32</sup> Rahmat Muhajir Nugroho and others, 'A Comparison of Legislative Election Systems in Indonesia and Malaysia', *Jurnal Media Hukum*, 31.1 (2024), 59-77. <https://doi.org/10.18196/jmh.v31i1.21485>.

<sup>33</sup> Mohammad Hazyar Arumbinang, Yordan Gunawan, and Andi Agus Salim, 'Prohibition of Child Recruitment as Soldiers: An International Regulatory Discourse', *Jurnal Media Hukum*, 30.1 (2023), 21-32. <https://doi.org/10.18196/jmh.v30i1.19322>.



- b. United Nations Office on Drugs and Crime or UNODC (UN) is an organization that assists countries in the fight against drugs through training and technology;
- c. Customs Information System or CIS (European Union) – a computer system that centralizes customs information in order to prevent violations;
- d. Global Initiative Against Transnational Organized Crime - promotes the exchange of information between interested parties and governments regarding the fight against organized crime;
- e. World Customs Organization or WCO – the organization aims to develop cooperation and standardize customs procedures; and
- f. South East European Law Enforcement Center (SELEC) - the organization promotes the development of cooperation and joint operations, in particular, within the region.

The experience of these initiatives can be used to improve cooperation, exchange information and conduct joint anti-smuggling activities considering national characteristics. Ukraine is a member of the WCO and cooperates with the United Nations through the UNODC and with the customs authorities of the EU. The deepening of partnership relations within the framework of these and other noted initiatives can provide Ukraine with greater technical and informational opportunities through the exchange of experience. Following the US example of building a system like C-TPAT could be particularly useful for Ukraine in the face of today's external threats. This could not only improve the security of supply chains, but also strengthen cooperation with the business sector. At the national level, it is important to develop coordination between internal bodies, in particular, law enforcement and customs. An important direction is the involvement of the community - both directly, for example, using the concept of Community Policing, and through information and educational campaigns.<sup>34</sup>

#### **4.3. Combining Human Intelligence with Technical Means to Detect Prohibited Items While Smuggling Investigations**

Along with the adaptation and optimization of legislation and the development of international cooperation, the development of human capital is an important direction in the fight against smuggling. Persons directly involved in the detection and investigation of smuggling play a key role in the development of successful anti-smuggling practices. First, it is worth focusing on the algorithm of actions that are performed directly in the process of detecting and investigating contraband. According to Ukrainian legislation, in the case of detection of signs of smuggling, the responsible person must take action to bring the criminal to justice. This happens even if this person was not identified at the time the crime was discovered. Priority search actions during the investigation of smuggling, first, include an inspection of the scene, conducting a search, seizing and inspecting documents, ordering forensic examinations, etc. If there are witnesses or persons who may have certain information about the identity of the criminal, it is necessary to conduct an interrogation. Customs officials and military personnel can provide important evidence during the interrogation. If the suspect is present at the scene of the crime, he is detained and searched; if the suspect fled the scene, he is pursued. Depending on the situation, it may be appropriate to go around the area and involve service dogs. The sequence of actions is determined depending on the situation. An especially important of these actions is the inspection of the scene of the incident, which

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<sup>34</sup> Yulia Krylova, 'The Impact of Russia's Full-Scale Invasion on Illicit Cigarette Trafficking from Ukraine to the European Union', *Journal of Illicit Economies and Development*, 6.2 (2024), 1-18. <https://doi.org/10.31389/jied.233>.

already at the initial stage of the investigation provides the most information and allows to tie the discovered contraband items to the scene of the incident.<sup>35</sup>

From the above, it can be concluded that human intelligence plays a huge role in the successful investigation of smuggling. Knowledge and experience are valuable capital that specialists acquire in the process of training and in practice. Among other things, this may include awareness of the most common places where contraband is hidden from customs control. Any cavities in vehicles, tanks, empty structures, etc. can act as a hiding place. Also, criminals can use specially made hiding places, for example, construct cavities in the vehicle that were not foreseen in the original technological characteristics of such a vehicle, use containers that are attached in hard-to-reach places. Among the most common places where contraband is hidden, depending on the vehicle used for smuggling, the following can be distinguished:

- a. in vehicles: tires, including spare ones; fuel/water tanks (appropriately converted); double bottom in drawers, for example, for tools; cavities, interior trim, etc; and
- b. in railway transport: mezzanine rooms; hidden places in toilet cabins; garbage cans; heating furnaces; places under the seats; ceiling lights; furniture; fire extinguishers.

In addition to the mentioned methods, it is worth considering that criminals can resort to "physical" methods of hiding contraband, i.e., using it to hide a person's body (including the body, internal cavities - for example, by swallowing objects), clothes, shoes, personal belongings. Giving items the appearance of other items or transporting them disassembled is defined as "camouflaging" items. In this way, criminals expect that the contraband item will be perceived at customs control as an ordinary household item and will not arouse suspicion. Various methods are used for camouflage, including changing the packaging, labels, and changing the appearance of the object. Sometimes criminals can resort to custom-made camouflage devices, or the very design of the weapon suggests that it will look like a completely different object, for example, a ballpoint pen.

There is a well-known way of transporting contraband using duplicating hand luggage. For this, the criminal has two identical suitcases (bags, backpacks, etc.), in one of which contraband items are hidden, and the other contains ordinary things for traveling. The last suitcase is handed over to the baggage department, and the suitcase with contraband remains with the criminal. If at the customs control, they demand to open the suitcase, the criminal begins to deny that it is his luggage and confirms his words by the fact that there is the same suitcase in the luggage compartment, which he simply confused.<sup>36</sup>

In the case of smuggling weapons, ammunition, explosive substances, their physical characteristics, in particular, weight, should also be considered. Often, these items are quite heavy, which makes them easier to find when hidden in supposedly light items (such as soft toys). During the search for the mentioned items, it is also worth checking items that, due to their size and characteristics, allow them to be hidden (loose detergents or products, storage containers, boxes, cases, bags, soap, etc.).<sup>37</sup> However, these methods of concealing contraband are only an example of the most common ways of committing the crime. Criminals can resort

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<sup>35</sup> Yordan Gunawan and Mohammad Hazyar Arumbintang, 'The Climate Change Litigation Based Human Rights Approach in Corporations: Prospects and Challenges', *Journal of Human Rights, Culture and Legal System*, 3.2 (2023), 288-307. <https://doi.org/10.53955/jhcls.v3i2.116>.

<sup>36</sup> Muhammad Ikhsan Lubis, 'The Relationship of International Human Rights Law with International Humanitarian Law in Situations of International Armed Conflicts', *Journal of Indonesian Legal Studies*, 1.1 (2016), 13-34. <https://doi.org/10.15294/jils.v1i01.16565>.

<sup>37</sup> Muhamad Haris Aulawi and others, 'Governing Indonesia's Plan to Halt Bauxite Ore Exports: Is Indonesia Ready to Fight Lawsuit at the WTO?', *Bestuur*, 11.1 (2023), 26-42. <https://doi.org/10.20961/bestuur.v11i1.69178>.

to the most unexpected methods of hiding contraband. In this case, the arsenal of investigators cannot be limited only to knowledge and experience - this requires special analytical abilities, creativity and, most importantly, the ability to recognize behavioural reactions. Also, in the case of hiding contraband items in hard-to-reach places, investigators may find the latest technical means to detect hidden items useful. Technical means that can be used to detect contraband include X-ray equipment, X-ray television devices, endoscopes, metal detectors, scales, echolocation devices, etc. The use of Action cameras, endoscopes, densitometers can be effective.<sup>38</sup>

Action cameras are digital video cameras designed for recording events by their direct participants. The advantages of such devices are compactness, as well as the ability to record events at 360 degrees. While conducting primary investigative actions in the process of investigating smuggling, such cameras can be useful for recording the inspection of the scene of the incident - both for the further use of the filmed material during the investigation, and for future training on incidents. An endoscope is an optical device equipped with a lighting system. It is intended for inspection of the internal surfaces of objects, for example, hard-to-reach cavities in vehicles. The principle of its operation consists in using a small-diameter tube with illumination to penetrate technical holes or cavities, and the image is displayed on a monitor (for example, a mobile phone). During a smuggling investigation, an inspection of the scene using an endoscope can help identify caches, for example, in a car - in converted fuel tanks, behind skins, panels, between walls, in the underbody, in tires, or in railway transport - in niches for bedding, between walls, furniture, fire extinguishers, etc.

Using a densitometer, or density meter, it is possible to scan vehicles. The device uses low-intensity gamma radiation, which allows it to quickly scan, detecting sudden changes in density. Such equipment can be used during the inspection of the scene and allows you to quickly detect hidden objects in tires, bumpers, behind panels, car seats, in tank cavities, doors, floors, etc. The conducted analysis made it possible to reveal how, through the improvement of the legislative framework, international cooperation and the combination of human intelligence with new technologies, the effectiveness of combating smuggling can be increased. The author's conclusions regarding the need to improve the legal framework and international cooperation are consistent with the work. Scientists have studied Indonesian legislation and international regulations on smuggling to find out measures to combat this phenomenon. Such measures include the elimination of gaps in legislation, strengthening of international cooperation and border control. Derege et al. conclude that the key problems of the spread of smuggling in the case of Ethiopia also lie in inadequate regulation, lack of coordination between the state and stakeholders. Researchers note that to improve the situation, it is necessary to take appropriate measures, including improving cooperation with neighbouring countries.<sup>39</sup>

The direction of improvement chosen by the author through the development of human capital also corresponds to existing needs and threats, which is confirmed in the work of Tkachova. Among the problems that exist directly in the course of operational-search activities, the researcher noted the lack of sufficient knowledge during the implementation of operational-search activities, non-compliance by investigators with recommendations, imperfection of operational-search tactics, etc. The problems identified by the researcher concern, first, imperfect knowledge and skills. Such knowledge is undoubtedly necessary, and may relate, for example, to awareness of investigation, interrogation and search tactics. In

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<sup>38</sup> M Syahrul Borman and others, 'Model for Resolving Election Violations through Indonesian Election Body and Constitutional Court', *Legality : Jurnal Ilmiah Hukum*, 32.2 SE-Journal's Articles (2024), 238-62. <https://doi.org/10.22219/ljih.v32i2.33711>.

<sup>39</sup> Derege, Ahmed, and Nagesso.

some works, methodological recommendations have even been formed, containing a list of places most often used to hide contraband. At the same time, the author's work notes that knowledge and skills alone may not be enough, it is also necessary to develop analytical abilities and the ability to recognize behavioural reactions. Among the methods that can be used during the investigation of smuggling, researchers note the observation of the emotional state of persons and provocation.<sup>40</sup>

In many works, considerable attention is paid to the application of technological methods of contraband detection. The technological methods mentioned in the author's article are effective while investigating smuggling, however, given the rapid development of technologies, the list of technologies formed is not exhaustive.<sup>41</sup> For example, in the work of Forbes et al. revealed how the capabilities of mass spectrometry can be used to detect traces of explosives, which can be an effective method for investigating the smuggling of weapons and explosives. Ricci et al. reveal innovative forensic interventions with search dogs to improve their skills in detecting drugs, weapons, explosives, etc. Daruka, in the process of researching advanced methods of detecting explosive materials, notes that along with the development of technology, criminal schemes also develop. In this regard, the researcher reveals new ways of transporting explosive materials across the customs border, including in the human body in implants. Surajo Alhaji et al. note that unmanned drones can be used to transport contraband and reveal ways to detect such drones. Kumar and Kothari exploring a similar issue, focus on the forensic analysis of drones from the point of view of obtaining important data contained in digital containers.<sup>42</sup>

From the conducted review, it can be concluded that the author's research is consistent with the conclusions of other scientists who studied a similar topic. The main contribution of the work is the focus on the integration of legislative, international, human, and technical resources. The failure of any of these resources results in a significant reduction in the effectiveness of smuggling investigations, so they must work together. This requires appropriate coordination at all levels – state, private, international.

## 5. Conclusions

The constant transformation of criminal smuggling schemes requires an appropriate response at the international, state and private levels. An effective response to the threat of smuggling is possible only through the integration of legislative, international, human, and technical resources. As a result of the work, the Ukrainian legislation on combating smuggling was studied with a special focus on changes caused by transformational processes due to European integration. It was noted that the implemented changes are necessary, but the mechanism of their implementation needs improvement. Also, the work revealed the legal basis of Ukraine's international cooperation in the field of investigation and combating smuggling. The key forms of cooperation were identified and the priority directions for its further development were revealed, including using the experience of several international initiatives. The study emphasizes the value of human capital in combination with innovative technologies, which can significantly increase the effectiveness of the investigation of crimes related to smuggling. Further areas of research should be directed to the study of the influence of socio-economic

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<sup>40</sup> David Décary-Héту, Vincent Mousseau, and Ikrame Rguioui, 'The Shift to Online Tobacco Trafficking', *International Journal of Cyber Criminology*, 12.1 (2018), 47–67. <https://doi.org/10.5281/zenodo.1467842>.

<sup>41</sup> Yordan Gunawan and others, 'Does the Protection of Minority Groups in Xinjiang Fail?', *Sriwijaya Law Review*, 4.2 (2020), 205–20. <https://doi.org/10.28946/slrev.Vol4.Iss2.432.pp205-220>.

<sup>42</sup> Surajo Alhaji and others.

factors on the prevalence and scope of the smuggling problem. This may include analysing the impact of indicators such as unemployment rate, GDP per capita, number of people with secondary and higher education, etc., on smuggling indicators. The revealed relationships can provide valuable information about the influence of socio-economic factors on smuggling. Also, they can contribute to the formation of recommendations for improving the situation not only based on the problems identified in this article, but also considering their causes.<sup>43</sup>

Based on the results of the study, the following recommendations should be offered:

- a. To ensure the appropriate level of knowledge and skills of specialists in the field of customs control through education, training and testing, as well as to increase attention to the development of analytical abilities;
- b. Ensure coordination and cooperation at the national and international levels;
- c. Research leading international practices and initiatives in the field of combating smuggling, adapt and implement the most effective and relevant to local conditions.
- d. Review the legislative aspects of combating smuggling to eliminate existing gaps and further align with international norms.
- e. To provide responsible persons with the latest technical means for detecting contraband and strengthening customs control (endoscopes, densitometers, x-rays, etc.); and
- f. Improve the methodology of inspection of the scene of the incident, including the use of new methods of capturing evidence (action cameras, etc.).

## References

- Anggriawan, Rizaldy, Andi Agus Salim, Yordan Gunawan, and Mohammad Hazyar Arumbinang, 'Passenger Name Record Data Protection under European Union and United States Agreement: Security over Privacy?', *Hasanuddin Law Review*, 8.2 (2022), 95–110. <https://doi.org/10.20956/halrev.v8i2.2844>.
- Antonopoulos, Georgios A, and Klaus von Lampe, "'Where There's Smoke, There's Money": An Introduction to the Special Issue on "the Illicit Tobacco Market"', *Trends in Organized Crime*, 19.3 (2016), 211–17. <https://doi.org/10.1007/s12117-016-9293-0>.
- Arumbinang, Mohammad Hazyar, Yordan Gunawan, and Andi Agus Salim, 'Prohibition of Child Recruitment as Soldiers: An International Regulatory Discourse', *Jurnal Media Hukum*, 30.1 (2023), 21–32. <https://doi.org/10.18196/jmh.v30i1.19322>.
- Aschner, Juan Pablo, and Juan Carlos Montero, 'Architectures, Spaces, and Territories of Illicit Drug Trafficking in Colombia and Mexico', *Crime, Media, Culture*, 17.3 (2020), 327–51. <https://doi.org/10.1177/1741659020910212>.
- Aulawi, Muhamad Haris, Yordan Gunawan, M. Hanaan Alfarizi, and Manuel Campos Lago, 'Governing Indonesia's Plan to Halt Bauxite Ore Exports: Is Indonesia Ready to Fight Lawsuit at the WTO?', *Bestuur*, 11.1 (2023), 26–42. <https://doi.org/10.20961/bestuur.v11i1.69178>.
- Bian, Weixin, Feng Luo, Deqin Xu, Biao Jie, and Yi Huang, 'A Multidimensional Adaptive Perception Model for Security Contraband Detection', *SSRN Electronic Journal*, 09.5 (2024), 7352–63. <https://doi.org/10.2139/ssrn.4654396>.

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<sup>43</sup> Georgios A Antonopoulos and Klaus von Lampe, "'Where There's Smoke, There's Money": An Introduction to the Special Issue on "the Illicit Tobacco Market"', *Trends in Organized Crime*, 19.3 (2016), 211–17. <https://doi.org/10.1007/s12117-016-9293-0>.



- Borman, M Syahrul, Siti Marwiyah, Vieta Imelda Cornelis, Irwan Lazuardi, and Phimlikid Kaewhanam, 'Model for Resolving Election Violations through Indonesian Election Body and Constitutional Court', *Legality : Jurnal Ilmiah Hukum*, 32.2 SE-Journal's Articles (2024), 238–62. <https://doi.org/10.22219/ljih.v32i2.33711>.
- Daruka, Norbert, 'Advanced Tools for the Explosive Materials Identification BT - Security-Related Advanced Technologies in Critical Infrastructure Protection', ed. by Tünde Anna Kovács, Zoltán Nyikes, and Igor Fürstner, *In Security-Related Advanced Technologies in Critical Infrastructure Protection: Theoretical and Practical Approach*, 2022, 455–69. [https://doi.org/10.1007/978-94-024-2174-3\\_39](https://doi.org/10.1007/978-94-024-2174-3_39).
- Décary-Héту, David, Vincent Mousseau, and Ikrame Rguioui, 'The Shift to Online Tobacco Trafficking', *International Journal of Cyber Criminology*, 12.1 (2018), 47–67. <https://doi.org/10.5281/zenodo.1467842>.
- Derege, Alemayehu, Abdi Ahmed, and Kasahun Nagesso, 'Unpacking the Hustles in Illegal Trade Practices and Control : Evidences from the Major Contraband Hotspots', *Research Square, Preprint*, 1.1 (2023), 1–33. <https://doi.org/10.21203/rs.3.rs-3654313/v1>.
- Eliaerts, J, N Meert, F Van Durme, P Dardenne, S Charles, K De Wael, and others, 'Challenges for Cocaine Detection in Smuggling Samples', *Forensic Science International*, 319 (2021), 110534. <https://doi.org/10.1016/j.forsciint.2020.110534>.
- Forbes, Thomas P, Jeffrey Lawrence, Changtong Hao, and Greg Gillen, 'Open Port Sampling Interface Mass Spectrometry of Wipe-Based Explosives, Oxidizers, and Narcotics for Trace Contraband Detection', *Analytical Methods*, 13.31 (2021), 3453–60. <https://doi.org/10.1039/D1AY01038G>.
- Galanakis, George, Xenophon Zabulis, Theodore Evdaimon, Sven Eric Fikenscher, Sebastian Allertseider, Theodora Tsikrika, and others, 'A Study of 3D Digitisation Modalities for Crime Scene Investigation', *Forensic Sciences*, 1.2 (2021), 56–85. <https://doi.org/10.3390/forensicsci1020008>.
- Gallien, Max, and Florian Weigand, 'Channeling Contraband: How States Shape International Smuggling Routes', *Security Studies*, 30.1 (2021), 79–106. <https://doi.org/10.1080/09636412.2021.1885728>.
- Gan, Ning, Fang Wan, Guangbo Lei, Li Xu, Chengzhi Xu, Ying Xiong, and others, 'YOLO-CID: Improved YOLOv7 for X-Ray Contraband Image Detection', *Electronics (Switzerland)*, 12.17 (2023). <https://doi.org/10.3390/electronics12173636>.
- Gunawan, Yordan, and Mohammad Hazyar Arumbinang, 'The Climate Change Litigation Based Human Rights Approach in Corporations: Prospects and Challenges', *Journal of Human Rights, Culture and Legal System*, 3.2 (2023), 288–307. <https://doi.org/10.53955/jhcls.v3i2.116>.
- Gunawan, Yordan, Yasir Perdana Ritonga, Mita Amelia, Siti Septiana K. Harun, and Nisa Nurhofipah Ramadani, 'Does the Protection of Minority Groups in Xinjiang Fail?', *Sriwijaya Law Review*, 4.2 (2020), 205–20. <https://doi.org/10.28946/slrev.Vol4.Iss2.432.pp205-220>.
- Khondoker, Robayt, 'Regulation and Contraband Trade in the Bangladeshi Borderland: Whose Weapons?', *Journal of Borderlands Studies*, 36.4 (2021), 617–36. <https://doi.org/10.1080/08865655.2019.1685400>.
- Kim, Diana, and Yuhki Tajima, 'Smuggling and Border Enforcement', *International Organization*, 76.4 (2022), 830–67. <https://doi.org/10.1017/S002081832200011X>.

- Koehler, Jana, 'Business Process Innovation with Artificial Intelligence: Levering Benefits and Controlling Operational Risks', *European Business & Management*, 4.2 (2018), 55. <https://doi.org/10.11648/j.ebm.20180402.12>.
- Kulish, Anatolii, Oleksandr Yunin, Olha Us, Iryna Shapovalova, and Ivan Yaromii, 'Smuggling as a Threat to Economic Security of the State', *Entrepreneurship and Sustainability Issues*, 8.3 (2021), 384–99. <https://doi.org/10.9770/jesi.2021>.
- Kumar, Tanay, and Mangal Kothari, 'Insights to the Forensic Investigation of a Custom Built UAV', *Electrical Engineering and Systems Science*, 14.1 (2023), 1–16. <https://doi.org/10.48550/arXiv.2308.14494>.
- de la Feria, Rita, 'Tax Fraud and Selective Law Enforcement', *Journal of Law and Society*, 47.2 (2020), 240–70. <https://doi.org/10.1111/jols.12221>.
- Krylova, Yulia, 'The Impact of Russia's Full-Scale Invasion on Illicit Cigarette Trafficking from Ukraine to the European Union', *Journal of Illicit Economies and Development*, 6.2 (2024), 1–18. <https://doi.org/10.31389/jied.233>.
- Leheza, Yevhen, Volodymyr Shablysty, Irina V. Aristova, Ivan O. Kravchenko, and Tatiana Korniakova, 'Foreign Experience in Legal Regulation of Combating Crime in the Sphere of Trafficking of Narcotic Drugs, Psychotropic Substances, Their Analogues and Precursors: Administrative and Criminal Aspect', *Journal of Drug and Alcohol Research*, 12.4 (2023). <https://doi.org/10.4303/JDAR/236240>.
- Lubis, Muhammad Ikhsan, 'The Relationship of International Human Rights Law with International Humanitarian Law in Situations of International Armed Conflicts', *Journal of Indonesian Legal Studies*, 1.1 (2016), 13–34. <https://doi.org/10.15294/jils.v1i01.16565>.
- Mahmoudi Meymand, Farzaneh, Amirhossein Takian, and Ebrahim Jaafaripooyan, 'The Challenges Associated with the Prevention of Smuggling and Counterfeiting Health Goods in Iran.', *BMC Public Health*, 24.1 (2024), 1564. <https://doi.org/10.1186/s12889-024-18637-0>.
- Mladinić, Nina, Šime Jozipović, and Marko Perkušić, 'The Danger of Organized Crime in the Area of Falsification of Medicines and Medical Products (Profit vs. Right to Health)', *EU and Comparative Law Issues and Challenges Series (ECLIC)*, 8.SE-Articles (2024), 113–39. <https://doi.org/10.25234/ecllc/32273>.
- Movchan, Roman, Oleksandr Dudorov, Andrii Vozniuk, Vitalii Areshonkov, and Yuriy Lutsenko, 'Combating Commodity Smuggling in Ukraine: In Search of the Optimal Legislative Model', *Revista Amazonia Investiga*, 10.47 (2021), 142–51. <https://doi.org/10.34069/ai/2021.47.11.14>.
- Nugroho, Rahmat Muhajir, Anom Wahyu Asmorojati, Wita Setyaningrum, and Farid Sufian Shuaib, 'A Comparison of Legislative Election Systems in Indonesia and Malaysia', *Jurnal Media Hukum*, 31.1 (2024), 59-77. <https://doi.org/10.18196/jmh.v31i1.21485>.
- Nwati, Morgan Tebei, 'The Anglophone Crisis: The Rise of Arms Trafficking and Smuggling, Its Effects on the Two English Regions of Cameroon', *Advances in Applied Sociology*, 11.1 (2021), 1–13. <https://doi.org/10.4236/aasoci.2021.111001>.
- Prayuda, Rendi, and Tulus Warsito, 'Problems Faced by ASEAN in Dealing with Transnational Drug Smuggling in Southeast Asia Region', *Foresight*, 23.3 (2021), 353–66. <https://doi.org/10.1108/FS-12-2019-0106>.
- Pujol-Cano, N, F X Molina-Romero, M Jiménez-Segovia, A Oseira-Reigosa, J Bonnin-Pascual, E Palma Zamora, and others, 'Liquid Cocaine Body Packing: A Rare Method for Drug

- Smuggling', *Clinical Toxicology*, 59.5 (2021), 445–47. <https://doi.org/10.1080/15563650.2020.1817480>.
- Ricci, Giovanna, Giulio Nittari, Laura Leondina Campanozzi, Alessandro Feola, Giuseppina Mazzalupi, Lorenzo Ceglie, and others, 'Use of Detection Dogs in Forensic Investigations: The Italian Scenario', *Romanian Journal of Legal Medicine*, 29.1 (2021), 69–73. <https://doi.org/10.4323/rjlm.2021.69>.
- Robinson, Corey, 'Offshoring and Outsourcing Anti-Smuggling Policy: Capacity Building and the Geopolitics of Migrant Smuggling', *Geopolitics*, 29.1 (2024), 13–38. <https://doi.org/10.1080/14650045.2022.2159385>.
- Shevchuk, V., and M. Kotiuk, 'Methods of Smuggling of Firearms And Ammunition in the Structure of Criminalistic Characteristics', *Collection of Scientific Papers ΛΟΓΟΣ*, 36.1 (2020), 8–13. <https://doi.org/10.36074/09.10.2020.v4.02>.
- Siyech, Mohammed Sinan, 'Arms Smuggling in India: Exploring Links between Crime and Terrorism', *Studies in Conflict & Terrorism*, 45.5–6 (2022), 445–62. <https://doi.org/10.1080/1057610X.2019.1678875>.
- Stephan, Paul B., 'The Crisis in International Law and the Path Forward for International Humanitarian Law', *International Review of the Red Cross*, 104.920–921 (2022), 2077–96. <https://doi.org/10.1017/S1816383122000285>.
- Surajo Alhaji, Musa, Abubakar Sa'idu Adamu, Girei Saad Hayatu, and Habush Abdelmajid Husam Hussein, 'A Preliminary Investigation of Copter Drone Detection by Using Forward Scattering Radar', *Journal of Aerospace Engineering and Mechanics*, 6.1 (2022), 588–95. <https://doi.org/10.36959/422/465>.
- Tkachova, Vita, 'Problems of Operational and Investigative Countermeasures by Criminal Police Units Against Smuggling of Firearms or Ammunition in Conditions of Martial Law', *Modern Problems of Legal, Economic and Social Development of the State*, 1.1 (2023), 79–80. <https://doi.org/dspace.univd.edu.ua/handle/123456789/19331>.
- van Uhm, Daan, Nigel South, and Tanya Wyatt, 'Connections between Trades and Trafficking in Wildlife and Drugs', *Trends in Organized Crime*, 24.4 (2021), 425–46. <https://doi.org/10.1007/s12117-021-09416-z>.