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Environmental Crimes and Criminal Legal Framework in Albania

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Abstract

Environmental protection is an essential issue in today's society. With the increasing number of environmental problems and issues, it is essential to have a comprehensive understanding of the role of criminal law in environmental protection. This paper aims to explore the relationship between criminal law and environmental protection, determining the effectiveness of criminal law in addressing environmental threats. Also, through this study it is analyzed from a comparative point of view in relation to the legislation of the developed countries of the European Union, the shortcomings of the Albanian criminal legislation which need to be updated. Criminal law has also played an important role in protecting the environment by imposing penalties and punishments on individuals or corporations that violate environmental laws. However, there is a need to assess the effectiveness of criminal law in protecting the environment and the challenges it faces in achieving its objectives. This research aims to contribute to the existing literature on criminal law in environmental protection by providing a more complete understanding of its effectiveness and challenges. The findings of the study will assist policy makers in designing and implementing more effective environmental protection measures, resulting in the promotion of sustainable development.

Keywords: environmental protection, criminal law, punishment and effective measures.

1. Introduction

Environmental protection is an essential issue in today's society. With the increasing number of environmental problems and issues, it is essential to have a comprehensive understanding of the role of criminal law in environmental protection. This proposal aims to investigate the relationship between criminal law and environmental protection, determining the effectiveness of criminal law in addressing environmental threats. Environmental pollution poses a major threat to the planet. Increasing industrialization, urbanization, and population growth have led to an increase in environmental problems such as air pollution, water pollution, and land pollution, among others. According to a report by the United Nations Environment Program (UNEP, 2019), environmental protection has become a global concern due to the Regional Environmental Agency reported increase in environmental problems caused by human activities. This proposal aims to build on the UNEP report by exploring the relationship between criminal law and environmental protection and establishing the effectiveness of criminal law in addressing these environmental threats. Environmental pollution caused by industrialization, urbanization,

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and population growth has resulted in problems such as air pollution, water pollution, and land pollution, among others (Lahiri-Dutt, 2018).

Environmental issues have resulted in severe consequences, including climate change, deforestation and species extinction. To address these issues, governments around the world have implemented various policies and laws aimed at preserving the environment. Criminal law has also played an important role in protecting the environment by imposing penalties and punishments on individuals or corporations that violate environmental laws. However, there is a need to assess the effectiveness of criminal law in protecting the environment and the challenges it faces in achieving its objectives. Based on a study by Berliner and Renn, criminal law has been an essential tool for environmental protection, but its effectiveness depends on the cooperation of other legal fields, such as civil and administrative law (Berliner & Renn, 2013).

Over the years, various legal measures have been implemented to protect the environment. However, the effectiveness of these measures has been constantly questioned due to the increasing number of environmental problems. Existing literature shows that the involvement of criminal law in environmental protection can be an effective tool in mitigating environmental challenges. The literature also identifies challenges associated with using criminal law to address environmental issues.

Criminal law is an important tool for protecting the environment from Regional Environmental Agency caused by individuals, corporations and governments. Environmental protection is increasingly becoming a vital global issue and in response, new legal frameworks are being developed to address these issues. The purpose of this literature review is to explore the role of criminal law in environmental protection and to identify the main legal principles and challenges involved in this process. According to a literature review by Sweeney and Manzi, criminal law has a critical role in addressing Regional Environmental Agency and protecting the environment by deterring Regional Environmental Agency full practices and imposing penalties on offenders (Sweeney & Manzi, 2018).

Environmental law is a concept that has evolved over several decades, with criminal law playing an essential role in this evolution. One of the earliest examples of environmental law is the Air Act US Clean Act of 1970, which criminalized the release of hazardous substances into the air. Similarly, the UK Environmental Protection Act 1990 includes specific provision for offenses relating to pollution and waste disposal (Erbelding, 2017).

One of the main principles of environmental criminal law is the concept of strict liability. In other words, a person or corporation can be held liable for environmental damage regardless of whether they were aware that their actions would result in environmental damage. This principle places a significant burden on businesses and individuals to ensure that their actions are monitored by Regional Environmental Agency (Reid, 2011).

Another important legal principle in environmental criminal law is the concept of due care. This principle requires individuals and corporations to take reasonable steps to prevent environmental bad occurring. For example, companies involved in waste disposal must take steps to prevent leaks, spills and other forms of environmental damage.

Referring to Reid, enforcement of environmental criminal law can be a challenging task, particularly in cases where the Regional Environmental Agency is not immediately apparent or where the Regional Environmental Agency extends across national borders. In addition, many environmental crimes are difficult to prosecute due to their complexity and lack of clear evidence of wrongdoing.

2. Criminal legal framework for environmental protection

The environment enjoys a special legal protection which starts with the Penal Code and continues with a series of special laws.

The Criminal Code provides for criminal offenses in the field of the environment in Chapter IV, of the Special Part of the Criminal Code, from article 201 to article 207/ç, several types of criminal offense are sanctioned.

The group object of these acts are the legal relations established and which receive special protection from the criminal law, to ensure the protection of the environment at a high level, its quality, preservation and improvement, prevention and reduction of risks to life and health of man, ensuring and improving the quality of life, for the benefit of present and future generations, as well as ensuring the conditions for the sustainable development of the country, good ones that are affected by pollution, damage or destruction of the environment.

The legislator through law no. 44/2019 "On some additions and changes to law no. 7895, dated 27.01.1995, Penal Code of the Republic of Albania", has changed the content of some provisions, the legal requalification of figures, merging into a single one, as well as the sanctioning of new figures of criminal offences.

Only currently, after the changes in the criminal law, it is observed that special legal-criminal protection is provided for each of the components of the environment, which are: air, land, waters, climate, flora and fauna in the totality of interactions with each other, as well as cultural heritage, as part of the human-made environment. (The definition in point 7, article 5 of the law no. 10431, dated 9.6.2011 "On environmental protection".)

Specifically, the following articles have been added: (1) 201/a "waste management"; (2) 201/b, "waste transportation"; (3) 201/c "Dangerous activities"; (4) 201/ç "Nuclear materials and dangerous radioactive substances"; (5) 202/a "Trading of protected species of wild flora and fauna"; (6) 202/b "Damage to habitats in environmentally protected areas"; (7) Article 207/a "Abandonment of a companion animal"; (8) 207/b "Deliberate killing of a companion animal"; (9) 207/c "Animal abuse"; and (10) 207/ç "Fights between animals".

Environmental crimes are categorized according to the type of environment affected, envisioning them as crimes related to air, water or soil pollution, etc. Even in our criminal code this criterion is partially used. Thus, in article 201 of the Criminal Code, "Air pollution" has been provided as a criminal offense, while in article 203, "Water pollution" has been penalized.

But the categorization of environmental crimes can also be done according to the type of pollutant involved, such as electronic waste, oils, asbestos, etc. In Albanian criminal code, according to this categorization, we can single out article 201/ç "Nuclear materials and dangerous radioactive substances."

They can also be classified based on the methods used to perform them. Thus, in Albanian criminal code, according to this categorization, we can single out the provisions in articles 204 "Prohibited fishing", article 206/a "Destruction by fire of forests" or article 207 "Violation of plant and animal quarantine".

Whereas, based on the geography of the scope, environmental crimes can be classified as internal environmental crimes, when they occur within state borders, as well as cross-border environmental crimes.

Another way of categorization is that according to the type of criminal offense, crime or misdemeanor.

The criminal offenses of "Air, water and soil pollution", "Transportation of waste" and "Negligent destruction by fire of forests and the forest environment" are considered crimes under

the Criminal Code, especially in cases where these offenses have resulted in consequences serious for people's lives and health.

Meanwhile, the criminal offenses of "Prohibited Fishing" Article 204, "Illegal Cutting of Forests" Article 205, "Cutting Ornamental and Fruit Trees" Article 206, and "Violation of Plant and Animal Quarantine" Article 207 are classified in the category of criminal misdemeanors, being punished by a fine or a prison sentence of up to two years.

In addition to the provisions of the Criminal Code, a number of special laws have been approved, such as:

- Law no. 10431, dated 9.6.2011 "On environmental protection",
- Law no. 57/2020 "For forests",
- Law no. 9385, dated 4.5.2005 "On forests and the forest service",
- Law no. 64/2012 "On fishing", amended,
- Law no. 10 253, dated 11.3.2010 "On hunting", amended,
- Law no. 10006, dated 23.10.2008 "On the protection of wild fauna", amended,
- Law no. 81/2017 "On protected areas",
- Law no. 10463, dated 22.9.2011, "On integrated waste management",
- Law no. 162/2014 "On the protection of air quality in the environment",
- Law no. 27/2016 "On the management of chemicals",
- Law no. 9774, dated 12.7.2007 "On the assessment and management of noise in the environment",
- Law no. 155/2020 "On climate change",
- a series of by-laws.

3. Problems of judicial practice

From the study of judicial practice, a small number of investigated criminal cases and court decisions given with the object of criminal offenses in the field of the environment can be observed.

Even after the amendments to the Criminal Code approved by law no. 44/2019, dated 18.7.2019, the number of court cases is still low. Even the new changes to the Criminal Code mostly remained on paper and not updated in practice, being considered "elite" criminal offenses.

Courts of Judicial Districts mainly in most cases have judged offenses related to the specificity of the territory covered by the respective court. For example, the Court of Kruja (Where the author has been a Prosecutor for a period of almost 5 years and the cases of investigation of the criminal offense "Air pollution" were excessive) has tried mainly the criminal offenses "air pollution" and "illegal cutting of forests". The Court of the Judicial District of Lushnja tried the criminal offenses "illegal cutting of forests" and "forbidden fishing", as well as the Court of the Judicial District of Pogradec or the Court of the Judicial District of Saranda.

It is important to mention here that the Elbasan Judicial District Court tried the criminal offense of "water pollution" and "air pollution". In some cases, proceedings have been registered due to the criminal complaint of various entities, such as the People's Advocate (Report of the People's Advocate), against some companies that carry out the activity of heavy industry.

Few investigated cases have been identified for the new criminal offenses added to the Criminal Code with the amendments approved by law no. 44/2019, dated 18.7.2019, but very few, almost no cases sent to trial.

The act of technical-environmental expertise has a very important role in the investigation of the most frequent criminal offense of "Air Pollution", provided for by Article 201 of the Criminal Code. From personal practice, difficulties are encountered in finding a licensed expert and finding a calibrated device. The delay in finding the expert also results in the reduction of pollution in relation to that found *a priori* by the judicial police.

From the study of the Albanian Committee of Helsinki regarding the investigation and trial of the criminal offense provided for by Article 201 of the Criminal Code "Air pollution" due to the disturbing situation in the Municipality Itching from the burning of lime pits, results in 11 decisions of the prosecutor's office for not starting criminal proceedings or dismissing the case, it turns out that the Technical-Environmental Expertise Act was carried out when the lime kiln was not exercising its activity, burning fuels.

So, in all cases, the expert reports for measuring the level of air pollution were not carried out on the same date that the fact was established, but after a few days or weeks, when the pollution was minimized due to the cessation of the furnace's activity.

The non-implementation of the Technical-Environmental Expertise Act during the time of the activity of the furnaces is estimated to have influenced the non-existence of one of the elements of the objective side of the picture of the criminal offense provided by Article 201, of the Criminal Code, which requires that air pollution be beyond the limit of the permitted rates. The studied decisions of the prosecutor's office show that the Prosecutor has decided to dismiss the criminal case in 9 cases and not start the criminal proceedings in 2 cases, because, based on the measurements according to the Technical-Environmental Expertise Act, it is not ascertained air pollution (from the release of gases and particles) above the permitted rates provided for in VKM no. 803, dt. 04.12.2003, "On the approval of air quality norms".

If the Technical-Environmental Expertise Act could not be carried out at the time of the finding of the violation, it would have been advisable for the prosecuting body, the prosecution, to decide to conduct the experiment in accordance with articles 176 et seq. of the Code of Criminal Procedure. In the conditions of the experiment, or as it is otherwise known, the reproduction, as far as possible, of the state in which the fact occurred or is estimated to have occurred, the measurement of the level of pollution could also be carried out objectively and as close to reality as possible. by means of technical-environmental expertise (Report of the Albanian Helsinki Committee, December 2017).

Recent literature has focused on the effectiveness of these mechanisms in promoting environmental protection, with some studies showing that strict liability is a more effective tool than criminal negligence. For example, researchers have found that imposing fines and penalties for strict liability violations is more effective in deterring companies and individuals from engaging in environmentally behavior than criminal negligence, which places a higher burden of proof on prosecutors.

A recent study by Linder et al. (2021) conducted a comparative analysis of the effectiveness of strict liability and criminal negligence in promoting environmental protection in the United States, Canada and Europe. The study found that strict liability is the preferred approach to environmental protection in most countries, with the imposition of criminal liability reserved for cases of gross negligence or willful misconduct.

Another recent study by Lippert and Laushman (2021) analyzed the role of criminal law in the enforcement of environmental regulations in the United States. The study found that the lack of uniformity in environmental laws across states and jurisdictions makes it difficult to

enforce environmental laws using criminal law. The study recommends the development of a more cohesive and uniform approach to criminal law enforcement in environmental protection.

4. The right of access of civil society

For nearly four months, the Albanian Helsinki Committee (HLC) has been monitoring the environmental pollution from hydrocarbon waste and the real and potential damage to the health and life of the residents of the Zharrëz Administrative Unit in the Patos Municipality of the Fier District (Albanian Helsinki Committee).

Initially on 18 October 2022, a group of observers from Albanian Helsinki Committee monitored this unit, meeting residents, representatives of institutions and examining several hotspot areas, everywhere was easily identifiable and observed accumulations of hydrocarbon waste, or old wells, in the absence of security measures and rehabilitative measures. Some of these areas were very close to citizens residences and greenhouses where vegetables were grown, which were then sold on the free market. AHC met closely with residents who claimed to receive regular treatment for blood diseases, while there were also residents who stated that there was an increase in cancer and related deaths.

The Helsinki Committee has continuously expressed its concern regarding the continuous monitoring of environmental pollution. In the absence of complete information during the monitoring visit to some of the institutions visited at the local level, this unit subsequently addressed official requests for information. Not all institutions responded to these requests. Under these conditions, The Helsinki Committee has appealed to the Commissioner for the Right to Information and Protection of Personal Data regarding the lack of response from the Prosecutor's Office of the Judicial District of Fier (as regards information on criminal proceedings for pollution in "Zharrez-Fier") and the non-response full of the Local Health Care Unit in Fier.

Based on the responses of several institutions, such as the Municipality of Patos, the Fier State Health Inspectorate (ISSH), the Fier Territory Protection Inspectorate (IMKT) as well as the Fier, Vlorë, Gjirokastër Regional Environmental Agency, The Helsinki Committee notes poor levels' reaction and lack of cooperation between these institutions, to exercise their responsibilities in a coordinated manner to prevent pollution and to sanction polluters. In particular, a climate of lack of initiative in ex officio inspections is observed, which creates a climate of lack of accountability and responsibility towards the operators who carry out activities in the field of hydrocarbons in this administrative unit.

Regional Environmental Agency, also due to its scope of activity, is the institution that has performed more inspection activities, compared to other institutions that Albanian Helsinki Committee has monitored. But this inspection activity turns out to have been developed in a fragmented and not systematic way. Specifically, Albanian Helsinki Committee notes that Regional Environmental Agency has carried out a series of inspections in 2021 and at the beginning of 2022. After the inspection on 04.11.2021 (Interim decision on taking emergency measure No. AKM-FR-2021-000274-4 date 04.11.2021) against Albpetrol Sh.a, an urgent measure was taken: "Interruption of the performance of an action, activity or a part of her" since hydrocarbons were found on the surface in the village of Zharrëz and a fine of 500,000 Lek was also imposed. Within the same month, on 25.11.2021, a second environmental inspection of this subject was carried out, which was fined in the amount of 1,000,000 Lek, and the supplementary penalty was given "Enclosure of each of the well squares where the oil extraction activity is carried out" and that of "Taking measures to protect the soil from pollution and erosion." Another environmental inspection was carried out against Albpetrol on 06.01.2022, where the administrative measure "Warning" was taken against the subject. Earlier, on 27.07.2021 and 20.08.2021, Regional Environmental Agency conducted 2 environmental inspections against

Bankers Petroleum Albania LTD, which was fined in the amount of 1,000,000 Lek and 500,000 Lek, for violations related to the activity for the treatment of waste in accordance with the environmental permit. Albanian Helsinki Committee notes that the correspondence with the authority lacks information about the execution of fines and how efficient they have been for preventing pollution and rehabilitating the area, which in fact continues to be a concern. It is also worth noting that Regional Environmental Agency could have better coordinated the cooperation with the structures responsible for the environment in the local government units, according to Law no. 90/2012 "On the organization and operation of the state administration", article 24 point 2 letter "c", in order to create joint units to perform administrative inspection duties. During the years 2021-2022, the Municipality of Patos has also carried out, after receiving complaints from the residents of this area, two monitorings in the field, after which it has determined the problems, for which it has been addressed with an official letter to the responsible entities. After the first monitoring, the Municipality has asked the subjects Albpetrol Sh.a and Bankers Petroleum Albania LTD Fier to take measures on the rehabilitation of the land and the pollution caused by the exercise of their activity. Subsequently, Albpetrol Sh.a has informed the Municipality that several measures have been taken to improve the situation, among which the on-site verification of the situation, for the cleaning of oil well 2351, as well as the compensation of a complaining citizen for the rehabilitation of agricultural land. Regarding the second monitoring, carried out almost a year later, the entity Albpetrol Sh.a was asked to take measures for the removal of hydrocarbon waste. The Albanian Committee of Helsinki continues to refer that the municipality has not made available to us, information on whether the inspected subject has responded or taken measures after its request.

Also, Albanian Helsinki Committee notes that the responsible body, Insurance Institute of Health, has not carried out any assessment of the impact on the health of residents, of the activity of Albpetrol Sh.a and Bankers Petroleum LTD, pursuant to Article 43 of Law no. 10138, dated 11.05.2009 "For Public Health" and did not cooperate with local government authorities. Despite the competences of the national agency of territorial defense for the inspection of environmental pollution, this institution has not carried out any inspection mainly and has only carried out an inspection initiated by the complaint of the "Zharrëza Association", after which it found the existence of an ecological pit in the process of obtaining a permit, for which he found no violation. Despite the fact that this institution has requested the cooperation of other competent institutions, this approach was observed after the date of the monitoring of Zharreza by the AHC team, which means an awareness of the institution to act, even if delayed. In time in the overall evaluation of all the information and documentation we have so far, Albanian Helsinki Committee notes that the responsible institutions avoid part of the responsibilities, partially showing negligence and poor recognition of their competences, but at the same time a lack of logistical means for measuring pollution. The overlap of competences that is referred to as a deadlock between Regional Environmental Agency and the national agency of territorial defense can be overcome if there was a good will to cooperate.

Albanian Helsinki Committee underlines that the right to a healthy environment occupies a special place in Article 8 of the European Convention on Human Rights, which guarantees the right to private and family life. In the case of Hatton and others v. United Kingdom (d. 2003), the appellant raised claims for noise pollution created by the airport located very close to the residence of the residents. The ECtHR found a violation of Article 8 of the Convention, as the state had failed to exercise its responsibilities to regulate private industry in such a way as to guarantee the proper observance of the obligations arising from this right. Also, according to this jurisprudence, people have the right to know the information by which they can assess the degree of danger that threatens them, and the state has the obligation to determine the procedure that makes it possible for individuals to know this information.

5. The role of the EU acquis and the Court of Justice of the European Union for environmental protection through criminal law

I. Issue no. 80-2021-1696 dated 28.05.2021 of the Administrative Court of First Instance Tirana

- Refers to the lawsuit filed by the associations "Eco Albania", "EuroNatur", "Riverwatch" and 39 residents of the Kalivac area in defense of the Vjosa river.
- The court established their legitimacy in the trial after assessing that they are interested parties in the trial and have the right to participate in the decision-making process based on the Aarhus Convention and domestic law.

II. Issue no. 49 dated 18.01.2021 of the Administrative Court of First Instance Tirana

- The plaintiff is a community of 8 residents of the Derjan, Mat Administrative Unit who have sued ERE and "Seka Hidropoër" shpk, which is the company that won the concession contract for the Seka hydroelectric plant.
- The plaintiff claimed that part of the hydroelectric plant was located in the protected area "Lure-Mali i Dejes", contrary to the law and the status of protected areas.
- Regarding legitimation, the court directly applied the Aarhus Convention.
- Regarding the basis of the case – the Court accepted the lawsuit by canceling the administrative act issued by ERE, the license that enabled the company to produce energy. The court concluded that the license was issued in violation of the law "On protected areas", Article 16, which prohibits the construction of hydropower plants in natural or water reserves.

III. Decision no. 322-2021 dated 21.07.2021 of the Administrative College of the Supreme Court

- The plaintiffs are 27 residents of the Municipality of Margegaj and the association "Toka" who have sued, among others, the Ministry of Energy, the Ministry of Environment, KMA and the companies that have received the relevant permits to build the hydroelectric plant in the Valbona National Park. In addition to declaring the concession contract for the construction of two hydropower plants "HEC Dragobia" and other administrative acts as absolutely invalid, the plaintiff requested the insurance of the lawsuit.
- The Administrative Court of First Instance and Appeal decided to dismiss the claim for insurance claim arguing that the plaintiff did not present any evidence to prove the damage caused to the environment.
- The Administrative College of the Supreme Court decided to change the decisions of the lower courts by accepting the claim insurance claim.
- Regarding the basis of the dispute, the lawsuit was dismissed by both administrative courts, while the review of the appeal in the Supreme Court is expected.
- In Ozel and others v. Turkey, members of the applicants' family died after being trapped under collapsed houses in the town of Çınarcık, a high-seismic hazard zone, in an August 1999 earthquake in Turkey, one of the more serious consequences in Turkey.
- The ECHR said that there had been a violation of Article 2 of the Convention in the procedural sense, as the Turkish authorities did not act immediately to find the persons responsible and the circumstances of the accident.

6. Recommendations

• Criminal liability in the case of environmental crimes is a relatively difficult concept, since to be effective it is combined with civil and administrative liability.

• The imposed administrative or civil sanctions for environmental polluters are not always convincing enough and giving up in this part, the resulting criminal sanction is punitive rather than rehabilitative or educational.

• For this reason, to increase the fight against environmental crime, new environmental crime directives should be proposed.

• Albanian legislation should be adapted with the legislation of European Union or the definition of criminal offenses related to pollution, waste and threats to biodiversity and other natural resources. By improving the way Member States deal with the most serious environmental violations, the proposal will contribute to the overall goals of the Green Deal to tackle the climate crisis, environmental degradation, pollution and nature loss and contribute to strengthening the rule of law. environmental.

• Improving the effectiveness of criminal investigations and prosecutions, by clarifying or eliminating ambiguous terms used in the definitions of environmental crime.

• Ensuring the types and levels of effective, convincing and proportionate sanctions for environmental crime.

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General Provisions of Digital Property Law and How to Categorize Digital Assets

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Abstract

This article deals with general provisions of digital property law and categorization of digital assets. Distributed data storage technologies and their applications have created a market for digital assets, forming a new intangible, digital type of property. The formation of digital property law, which is becoming increasingly important, is based on the functional approach of implementing digital assets as property into the law, which necessitates a rethinking and transformation of property law, similar to the transition from exclusively tangible objects of property rights to intangible objects such as intellectual property, as well as from securities and documents of title (bill of lading, bill of exchange) in paper form to fully dematerialized securities, electronic documents of title, and online accounts as property. The transformation of property law for the purposes of digital assets is based on the implementation of new, sui generis property rights and the extension of rules on property rights to objects that were not previously objects of law or were created for obligatory claims, as a result of which objects arising from actual or contractual relations acquire a in rem and quasi-in rem legal regime. Starting with an overview of the concepts of property law of digital assets, the article then discusses the concept of property, and then the concept of digital assets, their nature and classification of the main types of digital assets as property. The formation of digital property law inherent in modern law is a global trend characterized by the gradual recognition of certain types of digital assets as property and the creation of functional equivalents of possession, legal titles and remedies that are inherent in traditional property law, taking into account the intangible nature of digital assets. The author of this research starts with an overview of the general provisions of property law and digital property law, the article then discusses general provisions categorizing of digital assets, and categorizing types of digital assets.

Keywords: digital property law, digital assets, categorizing digital assets.

1. Introduction

Distributed data storage technologies and their applications have created a market for digital assets, forming a new intangible, digital type of property. The formation of digital property law, which is becoming increasingly important, is based on the functional approach of implementing digital assets as property into the law, which necessitates a rethinking and transformation of property law, similar to the transition from exclusively tangible objects of property rights to intangible objects such as intellectual property, as well as from securities and documents of title (bill of lading, bill of exchange) in paper form to fully dematerialized securities, electronic documents of title, and online accounts as property.

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The transformation of property law for the purposes of digital assets is based on the implementation of new, sui generis property rights and the extension of rules on property rights to objects that were not previously objects of law or were created for obligatory claims, as a result of which objects arising from actual or contractual relations acquire In Rem and quasi-In Rem legal regime.

Starting with an overview of the general provisions of property law and digital property law (2, 3), the article then discusses general provisions categorizing of digital assets (4), and categorizing types of digital assets (5).

2. General provisions of property law

2.1 *Concept of property law*

Traditionally property law is the area of law that governs the ownership, other in rem rights in things.

Property law defines objects of property for the purpose of the law, whether tangible or conceptual,[1] and confers exclusive rights in these objects or "things" that are enforceable against the whole world.[2]

2.2 *Concept of property*

Three principle elements for legal concept of property

The legal concept of property consists of three principal elements. Those elements are (1) the existence of a thing with particular characteristics; (2) a person's liberty to put the thing to various uses; and (3) the law conferring on that person a legal right to exclude others from the thing.

Approaches for concept of property

Legal systems take divergent approaches to the concept of property.

The property law of modern countries does not have a unified approach to the concept of property. Depending on whether the scope of property is limited to physical objects, different jurisdictions apply a broad or narrow understanding of property.

Narrow understanding of term "property" means in rem rights only over tangibles.

Broad understanding of term "property" provides for in rem rights over tangibles and legal rights.

Three broad approaches can be named in the world's most jurisdictions to the concept of property:

(1) Common law jurisdictions use categories of things in possession (tangible property, physical items) and things in action (intangible property, legal rights);

[1] Thus, the subject-matter of property can in principle be a tangible in the material world, an intangible (e.g., air), or a pure intangible, that is a legal concept, e.g., a debt, intellectual property right. The actual situation depends on the jurisdiction in question.

[2] Andreas Rahmatian, A Comparison of German Moveable Property Law and English Personal Property Law. Electronic Resource. – [Access Mode]: https://germanlawarchive.iuscomp.org/?p=340.

(2) Most civil law jurisdictions have traditionally recognized two categories of property, including personal property – things (physical items) and legal rights;

(3) Some civil law jurisdictions treat as property only a thing (physical items) (i.e., Germany, Japan).

Most civil law jurisdictions treat certain rights as non-physical objects, although a few stipulate that only physical objects qualify as "objects" that can be owned; and

Some civil jurisdictions, which includes German and Japanese law, have the most fundamental problems, as the recognition of any non-physical object, as an object of property rights needs to circumvent this dogmatic axiom.

2.3 *Concept and general attributes of property*

Property is at the heart of property law. Clearly, we need to understand what property is and where property in the context of digital assets fits within private law.

The property is used in private law of civil jurisdictions means only tangible items (i.e., German Law) or tangible and intangible items such as a property rights or any proprietary rights (i.e., Austria, Ukraine, Scotland).

In common law jurisdictions [personal] property consists of tangibles' or 'things in possession" and intangibles or "things in action."

[Personal] property refers to interests in relation to any other thing.[3]

"Property" does not refer to a thing but to a relationship between a person and a thing.

"Property" does not refer to a thing; it is a description of a legal relationship with a thing. It refers to a degree of power that is recognized in law as power permissibly exercised over the thing (High Court of Australia in *Yanner v Eaton*).[4]

The category of things in possession is currently limited to physical things. Things in possession are things which are "tangible, moveable, visible and of which possession can be taken." An example of this is a bag of gold: possession of a bag of gold gives its possessor a property right which is enforceable against the whole world.

Things in action are, in general, things in relation to which rights "are asserted by taking legal action or proceedings." The classic example of a thing in action is a debt claim. The category of things in action is sometimes given a much broader meaning as a residual class of personal property. In other words, the broad use of the term thing in action captures any personal property that is not a thing in possession. Common examples of "things in action" are debts, rights to sue for breach of contract, and shares in a company.

A key question is, therefore: "What features or attributes must a thing have before it can be the legal object of property rights?"

Under the UK case law: Property must be definable, identifiable, capable of assumption by third party, having some degree of permanence or stability (in *National Provincial Bank v Ainsworth*).

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[3] M. Bridge, L. Gullifer, K. Low, G. McMeel, *The Law of Personal Property* (3rd Ed. 2021) para 1-009.

[4] 201 CLR, referring to K. Gray, "Property in Thin Air" (1991) 50 *Cambridge Law Journal*, 251.

Another case: A statutory entitlement that is transferable and has value is certainly "property" (In *Celtic Extraction Ltd*, a case involving waste management licenses).

Civil law jurisdictions treat property in the legal sense as a set of subjective rights represented by a holder, and the objects to which these subjective rights refer can be quantified in monetary values.

For example, in the Law of Ukraine, property as a special object is considered a separate thing, a set of things, as well as property rights and obligations (Art. 190 of the Civil Code of Ukraine).

Therefore, the general attributes of property are: (1) the subsistence in them of a right control, enjoyment, or use, lato sensu – defined as the ownership, (2) legal title controllable by a certain person, (3) transferrable from one person to another.

Conclusions that could be drawn from this issue

Property are physical things, i.e., objects of the real world, and legal things, i.e., intangible objects (securities, digital assets, etc.) that are recognized by law or court as a thing or which are subject to the legal regime of a thing, since such property objects have property value, are capable to be controllable and transferrable.

2.4 *Concept of property rights*

Property rights are treated as rights against third parties.

Property rights are property rights (ownership and limited property rights in civil jurisdictions, legal titles in common law jurisdictions) that are valid against each person, that is, they are enforceable against the whole world.

Property rights are characterized by a closed list of property rights.

Most of jurisdictions recognize only certain types of property rights (numerus clausus of property rights).

Some jurisdictions provide for the principle of a relatively open list of property rights, according to which property rights are those provided for by law as property rights, as well as other property rights recognized by the court as property rights by their legal nature (for example, Spain).

Noteworthy inherent in English Law flexibility in recognizing of a new type of property and absolute proprietary rights due the relative openness of English law to recognizing property rights in a variety incorporeal thing.

Conclusions that could be drawn from this issue

Most of jurisdictions recognize only certain types of property rights (numerus clausus of property rights).

For the purposes of more flexibility of law, it is advisable to implement into the Law of Ukraine relatively open list of property and property rights by giving courts the right to recognize new types of property and property rights or other absolute proprietary rights not provided for by law in case of compliance with the key attributes of the property, property rights and other absolute proprietary rights.

Property rights are proprietary rights (ownership and limited property rights in civil jurisdictions, legal titles in common law jurisdictions) that are valid against each person.[5]

Traditional Property Law may apply to digital assets, despite their intangible nature, if a law or court decision recognizes digital assets as a thing or if they are subject to the provisions of the law on things. Thus, the law of many countries of civil and common law is characterized by a tendency to extend to digital assets or their specific types the provisions on personal (movable) property, taking into account the intangible nature of digital assets. At the same time, the law establishes the specifics of legal titles to digital assets.

Accordingly, digital property law is a branch of law that regulates absolute property rights in digital assets, their transfer, grounds for origin and termination, security, protection and inheritance under national and international private law.

3. General provisions of digital property law

3.1 *Concept and system of digital property law*

It is necessary to distinguish the concept "digital property law" and concept "digital property rights"), or digital property law in subjective and objective meanings.

Digital property law is the areas of private law that governs the various forms property rights, legal titles in digital assets.

Digital property rights are the entailments to access, control, enjoyment or use digital assets that operate against each person or only against a party to a contract or any other debtor, depending on whether they are legally characterized by rights in rem, obligations or other rights.[6]

Digital Property Law includes private law institutions of digital property, digital possession/control, transfer, legal titles (ownership, access, quasi – in rem rights), property injunction, security, remedies, inheritance, digital assets with a foreign element.

3.2 *Concept and legal titles on digital assets*

Digital assets are heterogeneous intangible benefitss that exist electronically and represent value or contractual rights. Different types of digital assets are legally characterized by rights in rem, obligations or other nature, which determines the nature of digital property rights.

Narrow meaning of digital assets equates to equivalent of cryptoassets: a cryptographically secured digital representation of value or contractual rights that uses some type of DLT and can be transferred, stored or traded electronically.

Broad understanding of digital assets means any record or representation of value that fulfils the following criteria:

> (i) it is exclusively stored, displayed and administered electronically, on or through a virtual platform or database, including where it is a record or representation of a real-world, tradeable asset, and whether or not the digital asset itself is held directly or through an account with an intermediary;

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[5] Christian von Bahr, *Gemeineuropäisches Sachenrecht Band 1: Grundlagen, Gegenstände sachenrechtlichen Rechtsschutzes, Arten und Erscheinungsformen subjektiver Sachenrechte*. Gebundenes Buch. – 2015. – Verlag C. H. Beck. – (s. 860). – S. 5.

[6] Rhys Bollen, The Legal Status of Online Currencies Are Bitcoins the Future? [2016] Access: https://ru.scribd.com/document/536348131/SSRN-id2285247.

(ii) it is capable of being subject to a right of control, enjoyment or use, regardless of whether such rights are legally characterised as being of a property, obligational or other nature; and

(iii) it is capable of being transferred from one party to another, including by way of voluntary disposition.

Access approach provides certain persons with access to the account's content, but not to the account *per se*.

Legal title approach provides certain persons with access content and the account per se.

Conclusions that could be drawn from this issue

The question remains as to ownership v access: ownership on digital assets only which are legal things, right of access on digital assets which are legal claims?

While the acknowledgement of digital assets as a form of property might make sense in certain jurisdictions that have a more functional understanding of the concept of property, i. e. things and legal rights, it might be in stark contrast to the current understanding and qualification of crypto assets as "crypto property" in other jurisdictions that only recognize physical objects as being subject to property rights.

Given the differences in different jurisdictions, the legal traditions of jurisdictions should be taken into account when recognizing virtual assets as property and legal titles to them.

3.3 *Ownership and possession*

Full participation in the turnover of digital assets necessitates their recognition as objects of ownership and possession or their legal equivalent.

Generally, ownership is treated as the most comprehensive right a person over a thing that are enforceable against the whole world. Possession is usually understood as the actual holding of a thing as one's own. At the same time, the object of possession is usually a tangible thing. Therefore, the existing concept of possession do not meet the requirements for "possession" of digital assets.

Legal statement on cryptoassets and smart contracts of the UK Jurisdiction Taskforce (UKJT)[7] concludes that "a cryptoasset is not a thing in possession because it not tangible and so cannot be possessed."[8]

In this regard, some authors note, that "While it is clear that the market expects the law to treat digital assets as objects of property rights – and it is common to speak about digital assets as objects of ownership and possession – it is not always straightforward that these concepts apply to digital assets."[9]

[7] Legal statement on cryptoassets and smart contracts. UK Jurisdiction Taskforce. The LawTech Delivery Panel, n. 67. November 2019. URL: https://www.blockchain4europe.eu/wp-content/uploads/2021/05/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf.

[8] Of course, the keys to a cryptoasset can be stored on a physical medium, which can be possessed, such as a USB drive or even a piece of paper. But that does not mean that the cryptoasset itself can be possessed.

[9] Jason G. Allen, Michel Rauchs, Apolline Blandin, Keith Bear, Legal and regulatory considerations for digital assets. University of Cambridge. 2020. Access: https://www.jbs.cam.ac.uk/wp-content/uploads/2020/10/2020-ccaf-legal-regulatory-considerations-report.pdf.

Possession is actual dominance over a thing, which implies having physical control over that thing. The functional equivalent of the actual domination pd a person over a digital asset confirms possession of the attributes of practical control over such asset (i.e., private key of the crypto-asset). A person who holds in his own interest such an instrument of practical control has control over a digital asset, which is functionally physical control over the thing that person owns.

However, UKJT believes that "It is not enough that the private key gives practical control. Possession is concerned with the physical control of tangible objects; practical control is a broader concept, capable of extending to intangible assets and to things which the law would not regard as property at all."[10]

One can agree with such an approach, if we proceed from the understanding of practical control, which is not created only by a tool of such control (for example, the private key of a crypto-asset). However, functionally physical control occurs in the event of practical control over digital assets that are recognized as property.

In this regard, two ways of development of the doctrine of control over digital assets could be assumed: (1) possession of digital assets, which involves practical control over appropriate digital assets which law treats as a property, or (2) control over digital assets that are property as a functional equivalent of possession, if domestical law does not recognize possession of digital assets, independent from possession.

In conclusion, it is possible to foresee the possible implementation of two main models of control over digital assets. First, the so-called digital possession or second, control of a digital asset as a legal equivalent of traditional possession. For the purpose of digital possession implementation, the law should provide for an expanded concept of possession by recognizing possession as both actual detention of a tangible thing and control over digital assets or by extending the provisions of the Laws on possession to "digital possession" (control) of digital assets. Other possible option for implementing "possession" of a digital assets is to implement into law (the Civil Code, judiciary practice) provisions on control of digital assets.

3.4 *Approaches to digital property law*

State-based approach: is it a way to breach crypto space?

This approach is based on the idea of sovereignty: the legal system has the inherent de jure authority to regulate cyberspace and therefore has the legitimacy to regulate DLT and blockchain, which is true for any other "sphere," physical or not. According to this approach, the legal principles on which the legal system is based are applicable to blockchain and DLT. In this case, the legal qualification of the nature of virtual assets is to recognize them as a form of property[11], that is recognized as intangible property, property digital artifact,[12] digital things

[10] Your Response Ltd v Data Team Business Media Ltd [2014] EWCA Civ 281 (n 26). URL: https://vlex.co.uk/vid/your-response-ltd-v-792620845.

[11] Fox, David, Cryptocurrencies in the Common Law of Property (August 16, 2018). http://dx.doi.org/10.2139/ssrn.3232501.

[12] Rhys Bollen, 'The Legal Status of Online Currencies Are Bitcoins the Future?' [2016]. Access: https://ru.scribd.com/document/536348131/SSRN-id2285247.

subject to the property law regime,[13] or they have the nature of obligatory rights[14]. Accordingly, in the future, we can expect the formation of virtual property rights as (1) quasi-property rights, or (2) obligatory rights, or (3) integrative (mixed) rights, or (4) sui generis, a new property right. In this regard, Finck Michèle concludes that "this approach ...is not useful for classifying the cryptos that have been classified as protocol cryptoassets, as in the case of decentralized applications or dapp, such as decentralized autonomous organizations (DAO)."[15]

This author's conclusion has important role, as it draws attention to the existence of a broader understanding of cryptos that is not covered by the traditional concept of civil rights object and leaves the category of "protocol cryptoassets" outside the normatively recognized classification of cryptoassets. Such broader understanding of cryptoassets might be useful in the context of constant emergence of new types of cryptoassets and related legal categories, despite the absence in modern law of an independent legal status of "protocol cryptoassets" as a separate type of cryptoasset or related to it legal category. In fact, there is a certain probability that in the future "protocol cryptoassets" may be recognized as a sui generis cryptoasset or a separate legal category, combining elements of the object and subject of civil rights.

Property cyberlaw: As a new paradigm

Cyberlaw is a new paradigm, based on the ideat that cryptolaw is outside of the law: it is a cloud of legal norms, processes, institutions, and vocabularies for governing inter-crypto, intra-crypto, and all other legal relations concerning crypto instruments, institutions, and markets.[16] The cryptolaw method of governance varies according to the kind of relation that exists between the law and code.

Self-executing and regulatory organizations, Lex Cryptographica: Are they truly promoting crypto space autonomy?

On the opposite side of the spectrum, another approach, which can be defined as cyber-separatism, extends to all kinds of cryptoassets and indicates that no regulation should be imposed and that DLT should remain self-driven[17]. Otherwise, regulations governed by the rule of law may be replaced by a system of algorithmic governance operated exclusively through the rule of code that both defines and enforces a *Lex Cryptographica*.

In any case, any solution must acknowledge that economic decisions and economic acts implemented through informatic systems such as blockchains are territorially neutral and are formed only virtually by a peer-to-peer network.

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[13] See: Nekit K. G. Virtual Assets as a Kind of Digital Things // Journal of Civil Law. August 2022. DOI: 10.32837/chc.voi45.466. Access: http://chascyvil.onua.edu.ua/index.php/chc/article/view/466; Nekit K. Social Media Account as an Object of Virtual Property. 2020. Access: https://journals.muni.cz/mujlt/article/download/12298/11651/28166.

[14] Cvetkova I. CRYPTOCURRENCIES LEGAL REGULATION. *BRICS Law Journal*, 2018; *5*(2): 128-153. https://doi.org/10.21684/2412-2343-2018-5-2-128-153.

[15] Finck Michèle, 'Blockchain Technology', *Blockchain Regulation and Governance in Europe* (Cambridge University Press 2018), 22 et seq. Access: https://assets.cambridge.org/97811084/74757/frontmatter/9781108474757_frontmatter.pdf.

[16] CleanApp, 'Defining Cryptolaw' (*Medium*, 28 September 2018) https://medium.com/cryptolawreview/cryptolaw-9410cf7a8fd4.

[17] Samuel Elliott, 'Bitcoin: The First Self-Regulating Currency?' (2018) 3 LSE Law Review 57 Access: https://storage.googleapis.com/jnl-lse-j-lselr-files/journals/1/articles/23/submission/proof/23-1-45-1-10-20191015.pdf.

Conclusion that could be drawn from this issue

Law towards a three-layered digital property law: State-based, supranational (Digital Lex Mercatoria) and intra- & inter-crypto (Law (Cyberlaw).

Failure to take into account spontaneous transnationality inherent to DLT will create hurdles in the development of technologies and capital outflaw from over-regulated jurisdictions.

4. General provisions categorizing of digital assets

4.1 *Approaches to categorizing digital assets*

Given the differences in the law of national jurisdictions, two main approaches to categorizing virtual assets as property are emerging: holistic and object-based.

The holistic approach provides for the recognition of digital assets, including cryptoassets and digital content:

(1) a kind of things/tangibles (Moldova);[18]

(2) legal equivalent to a things/tangibles by extending the provisions on things to virtual assets (Ukraine);[19]

(3) type of proprietary rights (Serbia).[20]

The object-based approach provides for separate legal regimes for different types of digital assets as property. In particular, cryptoassets are recognized as a movable property for secured cruptoassets (Germany),[21] "movable and immovable property of any kind" (Malta)[22] or sui generis, the third type of property (UK). Other digital assets (digital files, e-mail, domain names, carbon credits or European carbon dioxide emission permits) are usually recognized as property rights. Digital commercial papers (warehouse receipts, bills of lading, delivery orders) and in-game items are recognized as property rights or are not recognized as independent objects of civil rights depending on the laws of the relevant jurisdiction.

4.2 *Concept and test for categorizing digital assets*

The three-layered test for categorization a digital asset involves determining whether a certain digital asset meets the general concept of property, the concept of a certain type of digital property and for such the purpose of special interests such as the subject of legal title (ownership, access rights), control, security, remedies, bankruptcy.

[18] Article 477 of the Civil Code of the Republic of Moldova : Law No. 133 of 15.11.2018: enters into force on 01.03.2019 - Chisinau: Farmec-Lux, 2019 (F.E.-P. "Tipografia Centrala") - 640 p. P. 130-131.

[19] Law of Ukraine dated 10.08.2023 N 3320-IX On Amendments to the Civil Code of Ukraine to Expand the Range of Civil Rights Objects. Access: https://zakon.rada.gov.ua/laws/show/3320-IX#Text.

[20] Mirković Predrag, Digital Assets – A Legal Approach to the Regulation of the New Property Law Institute. Special Edition / 2023. Pages: 17–31. http://doi.org/10.5937/ptp2300017M.

[21] Fillmann A. German Law Aspects of Crypto Assets. The National Law Review. April 2, 2020. URL: https://www.natlawreview.com/article/german-law-aspects-crypto-assets#:~:text=Under%20German%20civil%20law%2C%20it,of%20sections%20903%20et%20subq.

[22] Malta Virtual Financial Assets Act 2018 (VFAA), pt I art. 2 (2). Electronic Resource. – [Access Mode]: https://legislation.mt/eli/cap/590/eng/pdf.

5. Categorizing types of digital assets

5.1 *Categorizing cryptoassets. Heterogeneity of cryptoassets*

Different types of cryptoassets do not have equivalent content. Exchange tokens closely linked do not incorporate any right of an obligatory character and closely linked to in rem rights, while utility tokens have a link to the holder's right to access goods or services linked to obligatory claims. Security tokens are equivalent of security closely linked to in rem or quasi in rem rights. NFT is separate cryptoassets structured to represent digital artworks, music works, collectables, baseball basketball cards, photo albums, etc. NT is closely linked to in rem rights. The ownership of NFT asset should depend on the structure and the underlying asset. For example, after a transfer of an NFT representing a digital artwork to the purchaser, the purchaser as the NFT owner has access to the underlying asset, but this does not mean that the purchaser automatically obtains ownership of the content of the underlying digital artwork. Depending on the terms and conditions, the NFT purchaser might only be entitled to view the digital artwork and does not acquire its ownership in any form (e.g., any electronic files of the artwork).[23]

There are a few approaches for categorizing of cryptoassets which provide for they are a form of property[24], are private intangible property, are a valuable digital artefact,[25] are digital things on which extend in rem regime,[26] or have the nature of obligation rights[27].

Taking into account the differences in the law of national jurisdictions, six approaches to the categorization of cryptoassets are formed, which are: (1) a kind of thing (Moldova), (2) equated to a thing by extending the provisions on things (tangibles) to digital assets (Ukraine), (3) equated to movable and immovable things of any kind (Malta)[28] ("movable and immovable property of any kind"),[29] (4) digital or property rights (Russia, Serbia),[30] (5) sui generis property (United Kingdom),[31] (6) crypto securities are equated to movable things, other crypto assets are recognized as property rights (Germany).[32]

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[23] Chang R., Hsiung E. Taiwan Blockchain. URL: https://www.legal500.com/guides/vhapter/taiwan-blockchain/?export-pdf.

[24] Fox, David, Cryptocurrencies in the Common Law of Property (August 16, 2018). http://dx.doi.org/10.2139/ssrn.3232501.

[25] Rhys Bollen, 'The Legal Status of Online Currencies Are Bitcoins the Future?' [2016] Access: https://ru.scribd.com/document/536348131/SSRN-id2285247.

[26] See: Nekit K. G. Virtual Assets as a Kind of Digital Things // Journal of Civil Law. August 2022. DOI: 10.32837/chc.v0i45.466. Access: http://chascyvil.onua.edu.ua/index.php/chc/article/view/466; Nekit K. Social Media Account as an Object of Virtual Property. 2020. Access: https://journals.muni.cz/mujlt/article/download/12298/11651/28166.

[27] Cvetkova I. CRYPTOCURRENCIES LEGAL REGULATION. *BRICS Law Journal*. 2018; 5(2): 128-153. https://doi.org/10.21684/2412-2343-2018-5-2-128-153.

[28] Malta Virtual Financial Assets Act 2018 (VFAA), pt I art. 2 (2). Electronic Resource. – [Access Mode]: https://legislation.mt/eli/cap/590/eng/pdf.

[29] Malta Virtual Financial Assets Act 2018 (VFAA) , pt I art. 2 (2). Electronic Resource. – [Access Mode]: https://legislation.mt/eli/cap/590/eng/pdf.

[30] Đ. ĐURIĆ, V. JOVANOVIĆ, NEW REGULATION OF DIGITAL ASSETS FOR FUTURE BUSINESS – CASE OF SERBIA. *AGORA International Journal of Juridical Sciences*, No. 1 (2023), pp. 7-16. http://univagora.ro/jour/index.php/aijjs.

[31] Fox, David, Cryptocurrencies in the Common Law of Property (August 16, 2018). http://dx.doi.org/10.2139/ssrn.3232501.

[32] German Law Aspects of Crypto Assets. *The National Law Review*, September 12, 2023. Volume XIII, Number 255. Access: https://www.natlawreview.com/article/german-law-aspects-crypto-assets.

However, a global trend is emerging to recognize cryptoassets as property.

In particular, in the Law of England and Wales crypto-tokens are already capable of qualifying as property, though the precise boundaries are unclear. We have no doubt that the English courts already recognise crypto-tokens (broadly, as described in Appendix 4 of the CP) as objects of property under English law. There will inevitably be boundary issues, and the property status of specific crypto-tokens will depend upon the particular features of the relevant system. Some of the Law Commission's proposals for statutory intervention (e.g., an innocent acquirer rule) could imply a need for a statutory definition of crypto-tokens.[33]

A similar tendency to recognize cryptoassets as property occurs in many other legal jurisdictionss, despite the peculiarities of national traditions regarding the concept of property and the model of legal regulation of cryptoassets.

Conclusions that could be drawn from this issue

There is an obvious conflict between various legal approaches conditioned by legal traditions and readiness for private law reforms.

5.2 *Categorizing digital commercial papers*

The digital commercial paper (bill of exchange, promissory note, etc.) represents the goods, which exists as a record capable to be subject of access, control, enjoy or use, capable to be controllable and transferrable from one person to another by digital negotiation.

Conclusions that could be drawn from this issue

This indicated compliance of this digital assets all core criteria of property.

5.3 *Categorizing digital files*

Digital file is a digital asset capable to be subject to control, rights of store the file on a hard drive, physical deliver the hard drive to another person and tell her the password, able to be transferred, regardless that they would not be normally disposed, since it could be subject of property-like (quasi-property) claim and consequently would benefit from or involve the need for the in rem legal regime.

Conclusions that could be drawn from this issue

Strong case for extending property rights to digital files.

5.4 *Categorizing domain names*

Domain name exists as a digital account password-protected by act of registration of domain name's holder which is capable to be subject to control, rights to access, use and dispose, has monetary value, could be controllable by certain person and able to be transferred from one person to another.

[33] Michael Voisin, Richard Hay, Sophia Le Vesconte, Sam Quicke, Henry Wells, Digital assets and English private law: the highlights of our response to the Law Commission's consultation. Access: https://www.linklaters.com/en/insights/blogs/fintechlinks/2022/october/digital-assets-and-english-private-law.

Conclusions that could be drawn from this issue

It means that domain name meets all criteria required for property regardless of at which extent such property rights will have big or little character of obligation between digital services provider and holder (owner) of this domain name.

5.5 *Categorizing emails*

Emails exists as a digital record which functions as a way to identify entity of its holder and a tool to send and to receive some digital information, which capable to be subject to control, rights to access, use and dispose, has monetary value, could be controllable by certain person and able to be transferred from one person to another.

Conclusion that could be drawn from this issue

It means that email meets all criteria for property and could be a digital asset and be recognized as property regardless of at which extent such property rights will have big or little character of obligation between digital services provider and holder of this email.

5.6 *Categorizing in-game digital assets*

In-game digital assets are type of digital assets, which are used to enrich a player's experience of a game, or to enable them to perform better within that game. Many in-game digital assets have marketable value. Examples of in-game digital assets include "skins" (avatar outfits), collectibles, weapons, and even virtual land and buildings.[34]

There are usually two main possible views as to what the thing that constitutes an in-game digital asset is:

(1) Some form of reified, or independently existing, object which exists in a digital world;[35]

(2) A mixture of information located on servers and computers, software, intellectual property rights and contractual rights.[36]

We agree with authors, which argue that "a players (as a landowners) actually "owned" objects of property in the game,"[37] and "in-game digital assets acquire some proprietary nature and limitations of use of a thing provided by the terms of the license are not incompatible with ownership of a thing, especially considering the fact that provider's terms of service provided for a player's ability to control the land which they owned in the game. They were able to exclude others, to subdivide it, or sell the ingame land in question."[38]

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[34] The Law Commission of England and Wales. Para 7.33 of Digital assets Consultation paper. No 256. 28 July 2022. Available at: https://www.lawcom.gov.uk/project/digital-assets/.

[35] See eg H Y-F Lim, "Virtual world, virtual land but real property" (2010) *Singapore Journal of Legal Studies* 304, and J, Fairfield, "Virtual property" (2005) 85 *Boston University Law Review* 1047.

[36] See M. Bridge, G. McMeel, L. Gullifer and K. Low, *The Law of Personal* Property (3rd ed 2021) paras 8-059 to 8-062. 600 487 F. Supp. 2d 593 (United States District Court for the Eastern District of Pennsylvania).

[37] H Y-F Lim, "Virtual world, virtual land but real property" (2010) *Singapore Journal of Legal Studies* 304, 312, referring to Guardian Unlimited: Gameblog, "Second Life and the Virtual Property Boom" (14 June 2005).

[38] Above, 320 to 321.

At the same time, the opposite position taken by the UK Commission is not without logic, that "the ingame digital asset exists as the result of a combination of infrastructure, intellectual property, and servers which enable a network of players to play together in the same ecosystem. However, all of these things are themselves the objects of property rights held by, among others, the game developer, or of some platform that supplies its services to players."[39]

Conclusion

If statutory law or court practice does not recognize in-game digital assets as an object of property rights held by, among others, the game developer or some platform that supplies its services to players, a players (as a landowners, etc.) could be treated as owner objects of property in the game, as in-game digital assets acquire some proprietary nature, taking into account that limitations of use of a thing provided by the terms of the license are not incompatible with ownership of a thing, especially considering the fact that provider's terms of service provide for a player's ability to control the land which they own in the game, and they are able to exclude others, to subdivide it, or sell the ingame land in question.

5.7 *Categorizing carbon credits or european allowances to emit CO2 ('EUAs')*

EUAs' exist as an electronic record and title over allowances, which have no material form, capable to rights of enjoy and use, be controllable, transferrable, each allowance has a unique code that allows for identification and contributes to the permanence and stability of the allowance.

Conclusions that could be drawn from this issue

From the perspective of English and Ukrainian laws, the proprietary status of the carbon allowances does not appear especially controversial and is enough likely.

8. Concluding remarks

The formation of digital property law inherent in modern law is a global trend characterized by the gradual recognition of certain types of digital assets as property and the creation of functional equivalents of possession, legal titles and remedies that are inherent in traditional property law, taking into account the intangible nature of digital assets.

Most types of digital assets potentially capable to be a property as they meet key criteria of property, namely they exist as a digital account or representation, capable to be subject to control, rights to access, enjoy, use, have monetary value, capable to be controllable by certain person and able to be transferred from one person to another. If so, it means that mentioned digital assets could be treated as a property.

The question remains whether all digital assets are property? For example, whether the deceased's email addresses containing confidential information about the deceased or third parties are property? The legal status of In-game items is relevant.

[39] The Law Commission of England and Wales. Para 7.41 of Digital assets Consultation paper. No 256. 28 July 2022. Available at: https://www.lawcom.gov.uk/project/digital-assets/.

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