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Environmental Indemnity: Seeking Effective Mechanisms for Ensuring the Participation of Law Enforcement Agencies

Askar Kanatovich ALIBAYEV

Karaganda Academy of the Ministry of Internal Affairs of the
Republic Kazakhstan named after Barimbek Beisenov, Kazakhstan
kz-askar.89@mail.ru

Sabigul Dzhanabayevna BEKISHEVA

Kazakh-Russian International University, Kazakhstan
magnolia2008@mail.ru

Judith Josefine HERNÁNDEZ GARCÍA

University of the Costa CUC, Colombia
jhernand86@cuc.edu.co

Ana Cecilia CHUMACEIRO HERNÁNDEZ

University of the Costa CUC, Colombia
achumace@cuc.edu.co

Alisher Serikbolovich IBRAYEV

Eurasian National University named after L.N. Gumilyev, Kazakhstan
alisher-ibraev@mail.ru

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Abstract:

Currently, there is an increase in the number of environmental violations and the environmental damage they cause. The article presents the results of the study of the legal framework and the practice of law enforcement to determine environmental damage, its scope, and possible compensation. The objective is to define the powers, functions, and roles of the agencies responsible for enforcing the law to guarantee environmental compensation. It is studied from the bibliographical, analytical, and critical review of the legal regulation, the practice of applying the law, and the scientific opinions on the compensation for damage to the environment. It is concluded that adequate environmental compensation depends directly on the activities of law enforcement agencies to identify and suppress environmental crimes and carry out administrative or criminal proceedings against offenders. The particularities of filing a civil lawsuit as a tool to repair the damage caused by an environmental crime are considered, focused on organizational and legal issues that negatively affect the effectiveness of environmental rights protection, as mentioned above, including the environmental incompetence of those who investigate crimes in that sphere and the shortcomings of judicial practice in determining the environmental damage. The main mechanisms to ensure the participation of law enforcement agencies in the calculation of environmental compensation, which has been developed in world practice, are presented. The authors made proposals for improving the existing organizational and legal framework and leveling the shortcomings of law enforcement practice.

Keywords: civil lawsuit; environmental indemnity; environmental impact assessment; law enforcement agencies; law enforcement activity.

JEL Classification: Q56; Q57; K52; K40.

Introduction

Unfortunately, humankind's consumption of the planet's resources is associated with a constant and mostly negative impact on the environment. Scientific and technological progress, which contributes to the emergence of new technological systems, inevitably leads to artificial damage to nature and threatens the fundamental biological basis of social existence (Samokhvalov and Burba 2018, 77). As the environment degrades, the population's interests are infringed, leading to regional and national socio-economic tension (Anufrieva *et al.* 2020, 5529; Alekseev *et al.* 2020). Without proper control over an ecological situation, the environment can become unsuitable for human existence and stop the development of civilization (Teziev and Rozhko 2020, 59). Such control implies using measures provided by the current legislation that should influence persons causing damage to the environment through their activities. These measures are designed to protect the disturbed state of natural objects (Afanasieva *et al.* 2020, 523; Nurutdinova and Bekisheva. 2020, 1215). The violators of environmental legislation also experience a negative impact, i.e., they are held liable for violating environmental standards.

Along with public liability, there is also a civil liability with an environmental indemnity (Balova *et al.* 2021, 1269; Mukhlynina *et al.* 2018, 633). Being one of the essential intersectoral institutions, including civil and environmental law, the compensation for environmental damages aims to protect the subjective environmental rights of citizens, restore technological systems, and help individuals affected by such harmful activities. The task of this institution is to prevent environmental offenses. However, this institution in the Republic of Kazakhstan does not work as efficiently as required. According to the data announced at the expanded meeting of the board of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, 783 orders were issued for environmental damages in 2020, and only 76.5% of the required amounts were recovered (Official information resource of the Prime Minister of the Republic of Kazakhstan 2021).

Thus, the potential of environmental indemnities in the Republic of Kazakhstan has not been fully realized, which addresses the participation of state authorities and law enforcement officers in its provision. The procedure and specifics of its provision have long attracted lawyers and environmentalists who wrote many research papers. The environmental issues arising mostly due to irrational nature management and negative impact on the environment and nature management in connection with the life of society are taken seriously and concern the global scientific community (Martin-Ortega *et al.* 2011, 1461). The legal regulation of environmental indemnities in Kazakhstan was considered by A.K. Kukeev (2019), E.Sh. Zhumaksanov (2019) and AU. Usenbaeva (2012). At the same time, one of the least studied aspects of environmental indemnities is the role of law enforcement agencies, but their involvement seems to be significant. Therefore, the research mentioned above topic is relevant.

The research hypothesis is as follows: the mechanism of environmental indemnities in the Republic of Kazakhstan can be more effective by including the relevant law enforcement activities in the territory management system.

1. Methods

The study is based on system-structural, functional, and institutional approaches, which allows presenting the legal essence of an environmental indemnity. We used a wide range of general and special qualitative and quantitative methods to achieve the goals and solve the related research problems. They include the statistical method to present the scale of accumulated environmental issues. The logical method helped to trace the connection between law enforcement activities within public and civil law. The transition from a general concept to a particular one was used to determine various stages of law enforcement participation in compensating for environmental damages. The comparative-legal method helps address world practice searching for successful schemes ensuring environmental indemnities. The research hypothesis has been proved by the data obtained from such materials as legal acts, published scientific papers on various aspects of environmental indemnities, official statistics, and other information from trusted sources on the Internet. To prove the hypothesis, we also used unique research methods: the analysis of documents and an expert survey to assess the reliability of selected sources. Modern innovations influence environmental protection, damage compensation, and many other related areas. The document analysis method allows extracting the necessary information from many assessments and forecasts and considering the overall complexity of assessing prospects and the lack of integrated methods in environmental protection and rational nature management. Document analysis is objectively limited (considering the quality of the selected sources, their completeness, and subjective viewpoints), so we surveyed experts to assess the reliability of the selected sources.

For a start, the selected information was divided into two groups depending on the types of documents. The first group comprised statistical information on administrative offenses in the Republic of Kazakhstan since 2004: open Internet sources indicating the data received, legislative acts, and orders to determine environmental damage and its compensation. The second group included expert opinions (interviews, express polls, reviews from scientific journals from Scopus and Web of Science over the past ten years). Then we exchanged information with 20 experts in the field of analysis of law enforcement agencies with some experience in ensuring compensation for environmental damages. These experts were selected to have at least three articles on this topic published in journals included in the Scopus or Web of Science databases. Each expert was sent an email request to evaluate the reliability of materials. The assessment was made using the Harrington scale (OECD 2009). The questionnaire (Table 1) included ten questions concerning the documents selected for the study (Bechara 2018).

Table 1. The questionnaire for experts

Source numbers	No.	Nominal scale
	10	Most relevant to the main issues
	9	Very important
	8	Important
	7	Worth considering
	6	Might be considered if the authors deem it necessary
	5	Might be considered, but I do not think it is an important source
	4	Not very important
	3	Insignificant
	2	Unimportant
	1	Not negotiable
List three essential sources that you can recommend to the authors		
Name	No.	Description/what might be of interest
	1	
	2	
	3	

The questionnaire provided three open-ended questions, where the experts could add their proposals for expanding/shortening the list of essential sources and comment on their answers. The experts' answers are summarized in Table 2.

Table 2. The generalized results of a survey of experts assessing the reliability of selected documents

No.	Main characteristics	Result (points)
1	The number of proposals sent to experts	20
2	The number of completed questionnaires received from experts	16
3	Average indicators of the reliability of statistical information	0.69
4	Average indicators of the reliability of expert opinions	0.64
5	The number of new documents added by experts to improve reliability	28

The questionnaire was compiled in three languages (English, Russian, and Kazakh). The respondents were given ten days to fill it. Later four of them told they were busy and refused to complete the questionnaire. The limited time frame and simultaneous mail-out allowed equal conditions for the experts. On average, the experts rated the selected documents "high" (according to the Harrington scale, the "high" value starts from 0.64-0.8).

The information collected was processed by separating its sources according to the degree of significance and their subsequent interpretation, at the final stage of this study. If the respondents could not explain the insufficient importance of any assessment, this criterion was not compared with the others. Most clarifications were received on three main criteria: 1. Grounds for environmental indemnities; 2. Types of environmental indemnities; 3. Types of compensation payments. This approach allowed to compare the issues of environmental damage according to the same criteria, which made the study systemic and tracked changes for each criterion. However, this approach imposes some limitations on the diversity of the study results since they are interpreted not according to all the possible criteria but only those that are equally described.

2. Results

The complex institution of civil liability is manifested in most areas of public administration, including in the field of environmental protection and nature management (Hernandez 2020). The main objective of this institution is the legal justification for imposing on the offender, who is the causer of property and, in some cases, moral harm, the obligation to compensate or minimize such damage to the injured person. With regard to environmental damage, it is compensated for along with the application of administrative or criminal prosecution measures to the violator. Private and public law are combined into a single procedural basis and become part of law enforcement activities. Authorized bodies perform law enforcement activities whose functioning, structure, and specific functions are legally defined (Seitzhanov 2017, 31). A complete list of law enforcement agencies is as follows: 1) prosecution authorities; 2) internal affairs bodies; 3) state fire service; 4) anti-corruption service; 5) economic investigation service defined in Article 3 adopted by the Law of the Republic of Kazakhstan "On Law Enforcement Service" of 2011 (Zakon Respubliki Kazakhstan 2011). We believe that internal affairs bodies and the prosecutor's office are involved in compensating for environmental damages, while fire service is only partially related to this sphere (in terms of assessing the damage to the environment caused by a manufactured fire). Therefore, we will not consider the activities of other bodies within this procedure (court, bailiffs), which the law mentioned above does not classify as law enforcement. The diverse and versatile activities of law enforcement officers, primarily public prosecution and internal affairs bodies, to protect environmental relations are carried out directly, which has a positive impact on an ecological situation but might consist of indirect activities to restore the disturbed natural environment, which is expressed, among other things, in compensation for the damage caused by the violator [9]. As for internal affairs bodies, their activities in this direction belong to law enforcement, i.e. the practical activities of various departments and services of the Internal Affairs Ministry, in accordance with their duties and powers, to ensure compliance with environmental legislation. In addition, such activities are carried out in cooperation with all the services and bodies authorized to conduct environmental activities in accordance with the law of the Republic of Kazakhstan. The powers of internal affairs bodies in the sphere of environmental protection are enshrined in Article 685, Clause 1 of Part 1 of Article 804 of the Administrative Code of the Republic of Kazakhstan (Kodeks Respubliki Kazakhstan 2014), Subclause 12 of Clause 10 of Resolution of the Government of the Republic of Kazakhstan of December 30, 2015 No. 1142 "On Approving the regulations on local police within internal affairs bodies" (Postanovlenie Pravitelstva Respubliki Kazakhstan 2015), Order of the Ministry of Internal Affairs of the Republic of Kazakhstan of December 29, 2015 "On Approving the regulations of the work of internal affairs bodies participating in nature conservation activities" (Prikaz Ministra vnutrennikh del 2015).

The decision to apply measures of civil liability to the causer of environmental damage is formed in the activities of internal affairs bodies at the final stages of investigating environmental offenses. At the initial stages, which are the most significant and time-consuming, the direct participation of internal affairs bodies predetermines the result of case initiation on an environmental indemnity and its further investigation. People initiating and investigating environmental offenses should, first of all, determine the fact of its commission, draw up a protocol, identify suspects and transfer the completed case materials to a person authorized to qualify the constituent elements of an offense for making a decision on initiating administrative or criminal proceedings. Within the framework of these powers, the said person is obliged to establish all the circumstances relevant to the case. Based on this activity, the issue of bringing a person to administrative and criminal liability is further resolved, which does not imply any property compensation in favor of the environment, being essentially punitive rather than compensatory. Shestak (2017, 62) wrote about filing a claim for compensation for environmental damage in the following manner: "One of the main ways to protect the property interests of state violated as a result of crimes is an indemnity and the resolution of a criminal case, which ensures the constitutional rights of the injured party to access justice and get a compensation for the damage caused by such criminal encroachments."

Chapter 13 of the Criminal Code of the Republic of Kazakhstan (Ugolovnyi kodeks Respubliki Kazakhstan 2014) establishing criminal liability for environmental offenses aims at holding the offender liable dependent on the presence and/or the amount of damage caused, which can be qualified as significant, large and especially large. Most articles of Chapter 13 of the Criminal Code of the Republic of Kazakhstan oblige an employee of the bodies investigating an environmental offense not only to prove the fact of environmental damage but also to determine its scope. This implies that the authorized person should have certain skills in calculating the damage caused by environmental offenses, including the knowledge of calculation methods through the use of taxes approved by state bodies. Such calculations refer to:

- the economic assessment of the damage caused by water pollution, disposal of consumption, production wastes in excess of established standards;

- economic assessment of damage associated with the disposal of radioactive waste and sources of ionizing radiation, as well as building materials, mining tailings and sludge, waste and mine waters released into the environment in excess of established standards;

- the economic assessment of damage from an oil spill (petroleum products) on the water (sea) surface adopted by Resolution of the Government of the Republic of Kazakhstan "On Establishing the Rules of assessing environmental damages" of June 27, 2007 No. 535 (Postanovlenie Pravitelstva Respubliki Kazakhstan 2007).

Despite the recommendatory nature of these taxes and methods, the court, when proving the facts and the amount of environmental damage, proceeds from their mandatory use by law enforcement officers when calculating such damage (Kravtsova 2018, 49). To gain the full compensation by the use of taxes and methods for calculating the amount of damage caused is not always possible. This is especially difficult in the case of large-scale damage (Chena *et al.* 2021, 3116; Dung *et al.* 2021, 343). The ultimate cost of restoring nature can significantly exceed the taxes calculated using such rates and methods (Mukhtarova 2009, 125). Calculating the amount of environmental damage can be difficult due to the non-obviousness and belated manifestation of negative changes in the environment and insufficient awareness of law enforcement agencies in the field of ecology and forensics. There is a need to involve various specialists in calculating environmental damages. They are primarily employees of environmental authorities, who conduct control measures, identify violations, and carry out administrative proceedings at the early stage. Under their duties, such officials should have the necessary qualifications to make the required calculations. After determining the number of environmental damages, the perpetrator is expected to voluntarily compensate for the intentional damage. If the guilty person does not reimburse the damage caused, the person concerned (usually represented by an employee of the environmental department) is obliged to prepare a claim for an environmental indemnity and send it to the court. This step is the next stage of the procedure performed by law enforcement bodies. The prosecutor should affirm the lawsuit in court. The primary role is assigned to the specialized prosecutor's office in the Republic of Kazakhstan. According to Clause 1 of Article 48 of the Law of the Republic of Kazakhstan, "On the Prosecutor's Office" (Zakon Respubliki Kazakhstan 2017), specialized environmental prosecutor's offices were established in the country. Their activities include conducting inspections for compliance with the Republic of Kazakhstan's environmental, water, sanitary, and epidemiological legislation. To this date, specialized prosecutor's offices have become the necessary element of the prosecutorial system. By conducting inspections for compliance with environmental legislation, environmental prosecutor's offices identify violations of the law, bring the perpetrators to various types of liability and recover damages in favor of the state (Sarpekov 2015). The activities of the prosecutor in initiating and considering a case for compensation for environmental damage is an integral part of the supervisory policy in the implementation of laws in the pre-trial investigation of environmental crimes. When preparing a claim for the court, the prosecutor should make sure that the data available in the case are sufficient to substantiate the amount of environmental damage in part related to the civil claim. The prosecutor has all the necessary procedural powers to maintain a claim for environmental indemnities. Thus, their powers include filing petitions for the reclamation of evidence and documents missing in the case, confirming the fact of causing harm to the environment, the health of citizens, and the property of economic entities requires the court to objectively and fully investigate them. Depending on the decision made by the court, the prosecutor either brings a cassation or private protest (in case of dissatisfaction) to a higher court or, if the claim is satisfied, ensures the consistent supervision of the implementation of the law when executing the court decision on the satisfaction of a civil claim for the recovery of environmental damage. The prosecutor monitors compliance with the legal requirements on full compensation for damage, not allowing a reduction in the amount awarded, unreasonable suspension, or termination of enforcement proceedings, up to full compensation.

It is worth mentioning that the activities of prosecutors aimed at initiating legal proceedings for compensation for environmental damage and supporting civil claims are supported by evidentiary information mainly due to the previous activities of internal affairs officers. Since law enforcement officers calculate the amount of environmental damage subject to compensation, it emphasizes their role at the preparatory stage.

3. Discussion

In world practice, there are various attitudes towards the issue of environmental indemnities. In the United States, this process is complex, including the prevention and suppression of the harmful effects exerted by people on the environment. The Republic of Kazakhstan includes civil, administrative, and criminal law. The main difference lies in the fact that the United States is a country of case law, whose norms are based on judicial practice and function in the field of environmental protection, as well as in other socio-economic spheres of society, along with traditional legislative acts. Civil liability is primarily governed by case law, while administrative and criminal liability

is regulated by the laws of the United States and states, i.e. the norms of the written law (Broslavskii 2017, 60). The damage caused to the environment, the so-called "ecogenic" harm, is considered by US law by analogy with the harm caused to the health and property of citizens, as well as the property of legal entities. Such damage is subject to compensation in accordance with the norms of civil law, united in a separate civil law institution (torts).

Table 3. Mechanisms for determining environmental damage and calculating its compensation in the Republic of Kazakhstan and the USA

Country	Grounds for environmental indemnities	Environmental indemnities	Amount of compensation payments
Republic of Kazakhstan	– The pollution, degradation, depletion of natural resources (measured in %, the minimum allowable levels for various components of the environment are established in Order of the Acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan of August 13, 2021 No. 327) – The extraction of natural resources above the established standards (established by Order of the Acting Minister of Agriculture of the Republic of Kazakhstan of February 27, 2015 No. 18-03/158 "On approving the amount of compensation for damage caused by violation of the legislation of the Republic of Kazakhstan in the field of protection, reproduction and use of wildlife") – The death of living organisms (Clause 25 of Article 1 of the Environmental Code of the Republic of Kazakhstan) (minimum allowable damage is not established)	1. In-kind compensation for environmental damage 2. Compensation payments for claims of injured persons (limits are not set)	Compensatory Damages
USA	Any proven damages caused by environmental offenses	1. Payouts for the environmental damage in kind 2. Payouts to injured persons	1. Compensatory Damages 2. For lost future profits (calculated income or products that could not be obtained due to environmental damage) 3. For social and moral damage

This institution provides two types of payments: 1) compensatory or actual damages and punitive or exemplary damages; 2) compensation for the income not received by the injured person as a result of environmental degradation or lost future profits that the victim could have received if there had been no offense (Novoselova and Novoselov 2017, 619); 3) the pain, suffering, grief, humiliation, fear, anxiety, mental disorder, mental illness and other negative consequences caused by an offense, including a decrease in the aesthetic value of a natural object, and others compensated by analogy with customary and civil law as "moral (or social) injury" (Redgwell 1992, 90). The court decides whether to collect such payments or not to apply a penalty, except for cases related to aggravating circumstances: the intentional and malicious nature of the offense, the use of various forms of coercion and deceit, and other aggravating circumstances. In these cases, the court is obliged to impose a penalty. The purpose of collecting payments from offenders is not only to punish the guilty but also to prevent offenses that are possible in the future. Compensation for environmental damage in kind, performed by the offender as work to eliminate the harmful consequences of an environmental offense, or with the involvement of

third parties to such work at their expense, is also typical of US law enforcement. The basis of the above-mentioned types of compensation might also be a settlement agreement approved by the court, concluded between the plaintiffs for compensation for environmental damage and its causer. Public and state interests in claims for compensation and environmental damage are defended by executive authorities: federal, state, regional, and local (counties, districts, municipalities, etc.). As a rule, the Environmental Protection Agency (EPA) (2014) and/or the U.S. Department of Justice (Attorney General) are the authorized representatives of the state. In this case, the plaintiff is a separate state: environmental authorities and/or the Attorney General of that state. The experience of the United States, where the Attorney General has 300 employees in three units dealing exclusively with environmental damage, shows that the authorities are aware of the importance and role of law enforcement agencies in this area (Environmental protection agency 2014).

The specifics of environmental damage compensation activities in the USA and the Republic of Kazakhstan are presented in the form of a table (Table 3).

This table shows that despite the lack of a clear regulatory definition, the US mechanism for environmental indemnities provides a wide range of compensation payments. Considering penalties, it seems to be quite effective.

It is worth mentioning that the effectiveness of law enforcement concerning environmental offenses is determined mainly by the ability to receive income from environmental indemnities and other monetary penalties. It is also essential that monetary penalties are not used to achieve political objectives (declared or undeclared) and that the methods used to achieve environmental compliance do not undermine public confidence in the regime and government intervention. Due to simple execution, fines for committing environmental offenses are more effective tools if compared with environmental indemnities in civil proceedings. They serve as a significant source of replenishing state and local budgets. Scientists argue that "the imposition of administrative fines is considered income, which makes them a budget tool rather than an instrument of environmental policy" (OECD 2009, 57). Controlled enterprises perceive fines as operating expenses that do not pose a real financial risk and do not have any social consequences (OECD 2009). Thus, they should be subject to monetary penalties, including environmental indemnities in civil proceedings. The calculation of compensation payout amounts should include such an item as "economic benefit from non-compliance with environmental legislation," as exemplified by cases from the world practice. Under organizational terms, it is appropriate to include monetary penalties to protect the environment in the territory management strategy (Savina *et al.* 2020, 1143). Sections on ecology and investment in environmental protection measures should enshrine their targeted spending on environmental restoration. It is also necessary to regularly analyze the impact of applied monetary penalties on the results of environmental activities.

Conclusion

As a result, it was established that law enforcement activities to compensate for environmental damage are carried out by law enforcement agencies. They are as follows: To identify the relevant violations, to assess their environmental damage, to ensure voluntary compensation by the perpetrators, to prepare valid lawsuits, and to timely hand them to the court. Currently, there are severe shortcomings in such law enforcement activities. Improving the efficiency of the police and environmental prosecutors aims at ensuring the most whole and timely compensation for environmental damages. It seems possible when specific changes are made in general, legal, and personnel organization. It is necessary to expand the network of environmental prosecutor's offices at the district level and create environmental police units at the regional level trained following positive international experience to increase personnel qualification calculating environmental indemnities, bringing and holding appropriate lawsuits. Thus, it is required to adopt the relevant legal regulations. In the organization's context, we should include a mechanism for fining violators of environmental legislation in the territory management strategy, which allows establishing the targeted spending of the collected funds and monitoring the impact of this mechanism on the environmental management of this territory. Thus, the research hypothesis has been proven. Further studies should dwell on the possible participation of non-governmental public organizations and individuals in compensation for environmental damages.

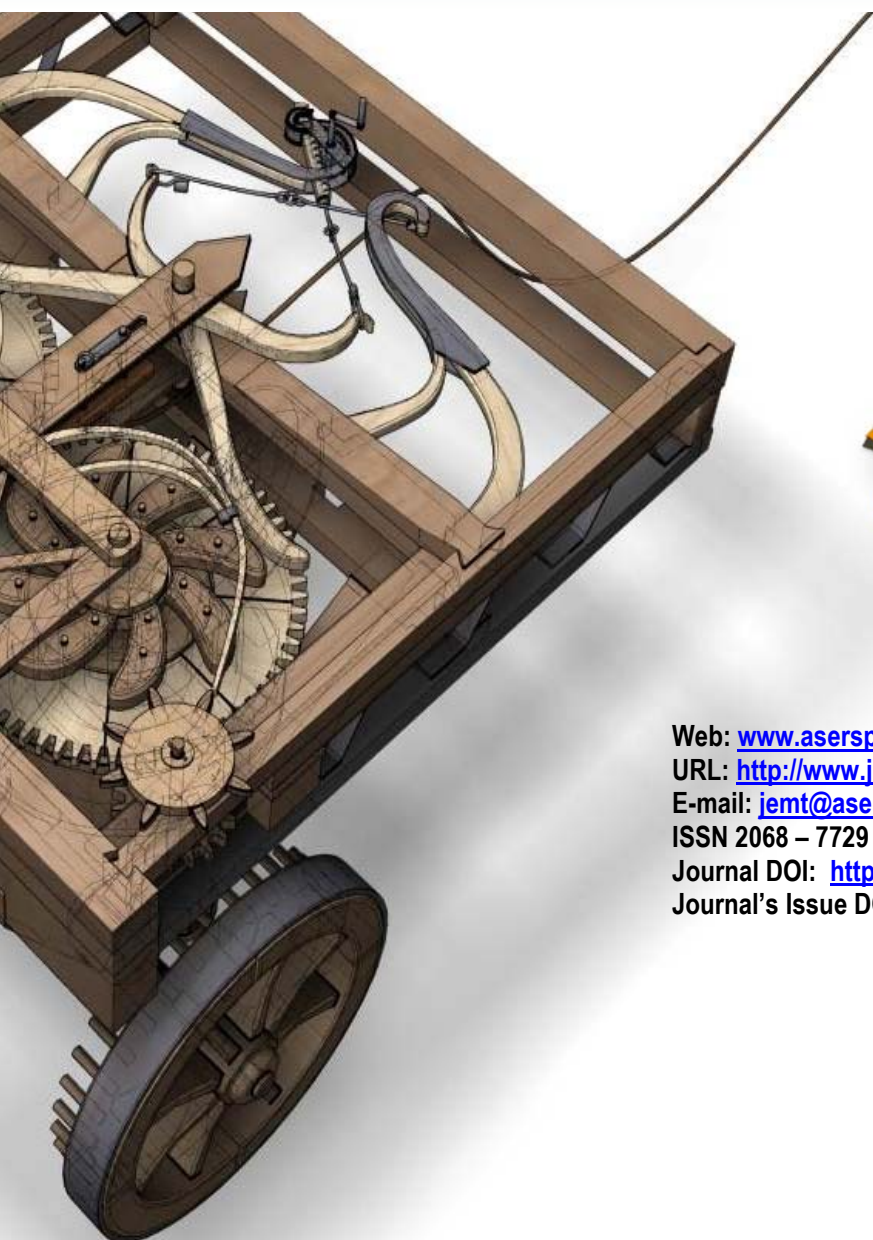
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