

**Preliminary Technical Studies for Projects Involving
Environmentally Harmful Activities in Algerian Legislation**
الدراسات التقنية لمشاريع الأنشطة الضارة بالبيئة في التشريع الجزائري
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Abstract:

This study addresses the topic of preliminary technical studies for projects involving environmentally harmful activities in Algerian legislation. It aims to analyze the legal framework governing these studies and to identify the similarities and differences between the general regime established under Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development and its implementing regulations, and the special regime established in the hydrocarbons sector under Executive Decree No. 21-319. The study addressed two main themes: the first theme was devoted to the environmental impact assessment in terms of its concept and provisions in the general environmental law and then in the hydrocarbons sector in both its forms (impact studies and impact memoranda), with an analysis of their conditions, content, and approval procedures. The second theme addressed the environmental hazard study under Law No. 03-10, followed by the hazard studies and memoranda and risk studies related to exploration activities in the hydrocarbons sector. The study relied on the descriptive-analytical method and the comparative method, and concluded that the Algerian legislator established a multi-level legal system for environmental technical studies characterized by the diversity of its instruments (studies, memoranda, summaries) and the multiplicity of approval authorities (the Minister in charge of the environment, the hydrocarbons regulatory authority, the Wali), although it is marked by complexity and intricacy, necessitating efforts to coordinate and simplify its procedures and strengthen mechanisms for public participation and ex post oversight.

key words: Environmental technical studies, impact assessment, hazard study, classified installations, hydrocarbons, Law No. 03-10, sustainable development.

المخلص:

تتناول هذه الدراسة موضوع الدراسات التقنية القبلية لمشاريع الأنشطة الضارة بالبيئة في التشريع الجزائري، وتهدف إلى تحليل الإطار القانوني المنظم لهذه الدراسات والكشف عن أوجه التشابه والاختلاف بين النظام العام المقرر في القانون رقم 03 – 10 المتعلق بحماية البيئة في إطار التنمية المستدامة ومراسيمه التطبيقية، والنظام الخاص المقرر في مجال المحروقات بموجب المرسوم التنفيذي رقم 21 – 319. وقد عالجت الدراسة محورين أساسيين: المحور الأول خُصص لدراسة مدى التأثير على البيئة من حيث مفهومها وأحكامها في القانون العام للبيئة ثم في مجال المحروقات بنوعيتها (دراسات التأثير ومذكرات التأثير)، مع تحليل شروطها ومحتواها وإجراءات الموافقة عليها. أما المحور الثاني فتناول دراسة الخطر البيئي في القانون رقم 03 – 10 ثم دراسات ومذكرات الأخطار ودراسات المخاطر المتعلقة بنشاطات البحث في مجال المحروقات. وقد اعتمدت الدراسة على المنهج الوصفي التحليلي والمنهج المقارن، وتوصلت إلى أن المشرع الجزائري أنشأ منظومة قانونية متعددة المستويات للدراسات التقنية البيئية تتميز بتنوع أدواتها (دراسات، مذكرات، موجزات) وتعدد جهات الموافقة عليها (الوزير المكلف بالبيئة، سلطة ضبط المحروقات، الوالي)، غير أنها تتسم بالتعقيد مما يستدعي العمل على تنسيقها وتبسيط إجراءاتها وتعزيز آليات المشاركة الشعبية والرقابة البعيدة.

الكلمات المفتاحية: الدراسات التقنية البيئية، دراسة التأثير على البيئة، دراسة الخطر البيئي، المنشآت المصنفة،

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Introduction:

The contemporary world has witnessed enormous industrial and technological development that has given rise to unprecedented environmental challenges, as economic and industrial activities have become among the most prominent sources of threat to the environment and natural resources. In light of this reality, states have recognized the necessity of finding a balance between the requirements of economic development and the imperatives of environmental protection. Consequently, preventive legal mechanisms have emerged aimed at assessing the environmental impacts of projects before their implementation, in application of the principles of prevention and precaution, which have come to constitute the fundamental pillar of contemporary environmental policies.

Algeria, like many other states, has adopted a comprehensive legal system for environmental protection within the framework of sustainable development, embodied primarily in Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development, which established a comprehensive system for preliminary technical studies comprising the environmental impact assessment and the environmental hazard study. In addition to this general framework, the Algerian legislator was keen to assign the hydrocarbons sector a special regime for environmental technical studies, given the specificity of this vital sector and the serious risks it entails for the environment, health, and safety, pursuant to Executive Decree No. 21-319 on the Licensing Regime for the Operation of Installations and Structures Pertaining to Hydrocarbons Activities.

This study is of great significance from several perspectives:

From a theoretical perspective: It contributes to enriching legal research related to environmental technical studies in Algerian legislation, through the analysis and comparison of the multiple legal regimes established by the legislator for assessing environmental impacts and risks associated with industrial activities in general and the hydrocarbons sector in particular, a topic that has not received sufficient attention from researchers.

The significance of the topic is highlighted by the fact that it addresses a strategically important sector, namely the hydrocarbons sector, which represents the backbone of the Algerian national economy. Reconciling the exploitation of energy resources with environmental protection is considered one of the greatest challenges facing Algeria. Moreover, understanding the differences between the various types of environmental technical studies (impact studies, impact memoranda, hazard studies, hazard memoranda, and risk studies related to exploration activities) is an urgent necessity for investors, economic operators, and legal practitioners alike.

The main research problem of this study revolves around the following question:

To what extent has the Algerian legislator succeeded in building a comprehensive and coherent legal system for preliminary environmental technical studies, and what are the differences and distinctions between the technical studies regime established under Law No. 03-10 and its counterpart established in the hydrocarbons sector?

The following subsidiary questions arise from this problem:

1.What is the concept of the environmental impact assessment and what are its provisions under Law No. 03-10?

2.How has the legislator regulated impact studies and impact memoranda on the environment in the hydrocarbons sector, and what is the difference between them and the impact study under the general environmental law?

3.What is the concept of the environmental hazard study and what are its procedures under Law No. 03-10?

4.How has the legislator regulated hazard studies and memoranda and risk studies in the hydrocarbons sector, and what is the difference between them and the hazard study under the general environmental law?

5.What are the fundamental differences between all these technical studies in terms of scope, content, procedures, and approval authority?

This study relied on the descriptive-analytical method as the most suitable for the nature of the subject, whereby the legal and regulatory texts relating to environmental technical studies were described and analyzed, and the rules and provisions governing them were extracted. The comparative method was also employed within the framework of internal comparison between the general regime for environmental technical studies established under Law No. 03-10 and the special regime established in the hydrocarbons sector under Executive Decree No. 21-319, with the aim of identifying the similarities and differences between them.

This study was divided into two main chapters:

Chapter One: Environmental Impact Assessment, comprising two sections: Section One was devoted to the environmental impact assessment under Law No. 03-10 in terms of concept and legal provisions, while Section Two addressed impact studies and memoranda on the environment in the hydrocarbons sector in terms of conditions, content, and approval procedures.

Chapter Two: Environmental Hazard Study, likewise comprising two sections: Section One addressed the environmental hazard study under Law No. 03-10 in terms of definition and general provisions, while Section Two was devoted to hazard studies and memoranda and risk studies related to exploration activities in the hydrocarbons sector.

Chapter One: Environmental Impact Assessment

The prevailing trend among the world's states, whether developed or developing, is to improve the investment climate and encourage investment projects. On the other hand, through the implementation of certain projects worldwide, negative phenomena have emerged that were previously unforeseen, as it has become clear that the primary cause of environmental degradation is the growing economic activity, where technological progress and development have led to massive production that depletes natural resources and whose enormous waste has resulted in environmental pollution.¹

The environmental impact assessment of investment projects has become one of the foremost concerns of both developing and developed states alike, given the decisive role such studies play in making the investment decision to accept or reject the investment project.² Therefore, the environmental impact assessment aims to identify, in a timely manner, the impacts caused by investment operations on the environment in its broad sense, whether direct or indirect, on human beings and their surroundings.³

The importance of the environmental impact assessment, which is of a dual nature, is evident: firstly, it allows for risk assessment, i.e., identifying serious and irreparable harmful effects that may affect humans and the environment and examining and estimating the probabilities of their occurrence, by taking measures aimed at avoiding or reducing these effects; secondly, scientific knowledge is in continuous development, therefore the degree of probability of harm occurring must be assessed in accordance with scientific progress, and precautionary measures must likewise keep pace with developments according to available data.⁴

This chapter will be addressed in two sections: the first section will deal with the environmental impact assessment under Law No. 03-10, and the second section will address the impact study and memorandum on the environment in the hydrocarbons sector.

Section One: Environmental Impact Assessment under Law No. 03-10

The environmental impact assessment is considered one of the most prominent preventive legal mechanisms enshrined by the Algerian legislator for environmental protection. It is a preliminary procedure that precedes the granting of authorization for the execution of development and investment projects. This procedure first appeared in the United States of America in 1969 before spreading to most national legislations and being enshrined in numerous international conventions. In Algeria, it was first introduced under Law No. 83-03 on Environmental Protection, and was subsequently reorganized in greater detail in Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development and the executive decrees issued in its application, particularly Executive Decree No. 07-145, as amended and supplemented. This section aims to analyze the legal framework for the environmental impact assessment in terms of its concept, characteristics, and legal basis, followed by the legal provisions relating to its scope of application, content, and approval procedures.

A) Concept of the Environmental Impact Assessment:

The first legal text establishing the environmental impact study appeared in the United States of America in 1969. This law requires federal agencies to prepare an environmental impact study for all federal activities that could cause harm to the human environment. This was followed by Canada in 1979, in what is known as the *Environment Organisation Act*. This procedure was incorporated into numerous international instruments, and the term "impact study" was used as a technical and functional term in

documents such as the action program emanating from the Stockholm Conference on the Protection of the Human Environment.⁵

1- Definition of the Environmental Impact Assessment:

The environmental impact assessment refers to the study that enables us to determine the positive and negative outcomes of development projects and programs on the environment, and to ensure that these negative outcomes have been taken into consideration.⁶

It has also been defined as a study of the expected impacts or environmental return of harmful and beneficial development projects, both direct and indirect, their results and the probability of damage occurring to the community in the project area or neighboring areas, whether local, national, or global, with the aim of addressing or avoiding these impacts.⁷

It has further been defined as a procedure and an evaluative and predictive tool that must be conducted for certain construction projects, development works, or major installations, for the purpose of demonstrating their effects and repercussions on the environment.⁸

It has also been defined as the practical or methodological procedures designed to identify the environmental impacts of any developmental activity on the environment and human health, where results are interpreted and information about those impacts is exchanged. Environmental impacts include an evaluation or judgment on environmental changes and their beneficial or harmful consequences, as well as knowledge of latent environmental impacts or environmental factors that must be taken into account.⁹

2- Characteristics of the Environmental Impact Assessment:

The environmental impact assessment is distinguished by a set of characteristics:

a – The environmental impact assessment is a technical process:

No one denies today the fundamental role played by science in environmental issues and its attempts to identify the problems afflicting the environment first, and then to seek explanations and solutions. With respect to environmental law, this relationship appears more closely connected than in other branches of law, as science at the beginning of the last century gradually led to the emergence of environmental law to regulate human activities within the environmental milieu and protect it from violations. Moreover, technical sciences are what determine today the causes of environmental pollution, and consequently the human activities responsible for it, which the law subsequently prohibits or at least regulates and establishes special frameworks for them.¹⁰

b – The environmental impact assessment is a preventive procedure:

The environmental impact assessment derives its legitimacy and philosophy from the principle of the preventive approach, which is one of the oldest environmental principles in philosophy and relatively recent as a procedure. This principle has a close relationship with international cooperation to prevent transboundary pollution, to avoid

making decisions concerning activities that could have an adverse impact on the environment. International cooperation in environmental protection appears, under this principle, on the one hand through its application to confront activities that could be harmful to the environment, to minimize the risks of serious transboundary harm, consisting of the obligation to exercise due diligence in taking specific measures to achieve such protection, including the impact assessment. This principle is applied to confront activities and substances that could be harmful to the environment and to minimize the risks of serious transboundary harm, which is an obligation of due diligence, requiring states to take specific measures by their own volition to prevent risks.¹¹

c – The environmental impact assessment is an administrative procedure:

The environmental impact assessment is considered a preliminary administrative procedure and does not constitute a purely administrative act, because it falls within the process of preparing the administrative decision regarding the granting or refusal of authorization. The impact assessment has brought about a change in the exercise of regulatory power, as it requires the administration to abandon unilateral action in managing environmental affairs and to adopt participation, consultation, and dialogue with various administrations, scientific centers, civil society, and economic institutions.¹²

d – Legal consecration of the environmental impact assessment:

Environmental impact assessment has been adopted by numerous international conventions. The Stockholm Declaration implicitly referred to the environmental impact study in its Principles 14 and 15.¹³ It was provided for in Article 206 of the United Nations Convention on the Law of the Sea of 1982¹⁴ and the Convention on Biological Diversity (Article 14/1/a).¹⁵ Principle 17 of the Rio Declaration of 1992 also affirmed this procedure.¹⁶ Likewise, Article 2 of the Espoo Convention on Environmental Impact Assessment in a Transboundary Context signed on 25/02/1991¹⁷, and the Madrid Protocol to the Antarctic Treaty on Environmental Protection signed on 14/10/1991, which specifies assessment modalities and requires the preparation of a comprehensive description of the proposed activity if the study reveals significant risks; in that case, a comprehensive assessment of the extent of impact must be conducted containing the standard elements of an impact study as well as the designation of monitoring and warning measures to be taken.¹⁸

The environmental impact assessment was first introduced in Algeria under Law No. 83-03 on Environmental Protection¹⁹ in Article 130 thereof. The subsequent decrees issued in application of this law addressed it, particularly Decree No. 87-91 on the Urban Development Impact Study²⁰, followed by Executive Decree No. 90-78 on the Environmental Impact Assessment²¹. All these laws were repealed by the enactment of Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development²² pursuant to Article 113 thereof, under which a system for the assessment of investment projects was established pursuant to Articles 15 and 16 thereof. In application of the provisions of these two articles, executive decrees were issued, namely

Executive Decree No. 06-198 establishing the regulations applicable to classified installations for environmental protection²³, Executive Decree No. 07-144 specifying the list of classified installations for environmental protection²⁴, and Executive Decree No. 07-145 specifying the scope of application, content, and modalities for the approval of the impact study and summary on the environment²⁵. The latter was amended by Executive Decree No. 19-241²⁶.

B) Legal Provisions for the Environmental Impact Study under Law No. 03-10:

The legal regime for the environmental impact assessment under Law No. 03-10 consists of three essential components corresponding to the stages through which the impact assessment proceeds: the stage of determining whether the investment project is subject to the impact assessment, i.e., the scope of application of this study; then the procedures carried out by the project proponent in conducting the study, i.e., the content of this study; and finally, the evaluation and oversight of the study prepared by the project proponent²⁷.

1- Scope of application of the environmental impact assessment procedure:

Article 15 of Law No. 03-10 provides: *"The following shall be subject, prior to and as the case may be, to an impact study or an impact summary on the environment: development projects, structures, fixed installations, factories, and other engineering works, and all works and construction and development programs that directly or indirectly, immediately or subsequently affect the environment, particularly species, resources, natural environments and spaces, ecological balances, and also the living framework and quality of life. The modalities for the application of this article shall be determined by regulation."*

This article referred us to regulation for its application. Accordingly, a number of executive decrees were issued, including Executive Decree No. 06-198, which establishes the regulations applicable to classified installations for environmental protection, Executive Decree No. 07-144 specifying the list of classified installations for environmental protection, and Executive Decree No. 07-145 specifying the scope of application, content, and modalities for the approval of the impact study and summary on the environment²⁸.

Article 3 of Executive Decree No. 07-145 provided for the subjection of projects specified in the annex to this decree to the environmental impact study²⁹. According to Article 2 of Executive Decree No. 07-144, the classified installations provided for in this decree are subject to the environmental impact assessment procedure.

The Algerian legislator provided that projects and installations exempted from an impact study or summary shall be subject to a declaration to the president of the communal people's assembly³⁰, but without specifying a list of such projects or installations, unlike the repealed Decree No. 90-78, which included in its annexed appendix an exceptional list of works, development activities, and installations exempted from the impact assessment by virtue of their weak environmental impacts and which are subject to special legislative and regulatory provisions³¹.

However, upon examining certain legal texts, it is observed that authorizations cannot be granted without conducting an environmental impact assessment, which demonstrates that environmental protection rules are not excluded. For example, in the field of investments, the one-stop shop represents the sole body capable of reconciling the principles of freedom of investment and environmental protection, given that investments are declared before it in order to obtain authorizations within the shortest timeframes, in addition to granting privileges and monitoring and overseeing these projects, particularly those related to investment contracts, all of which are subject to the environmental impact assessment, such as the fields of hydrocarbons, mining, water, electricity, and gas³².

It should be noted that the Mining Law No. 14-05³³ required in Article 126 that every applicant for a mining title accompany their application with a study of the environmental impact of mining activity. This was also provided for in Articles 22 and 28 of Executive Decree No. 02-65 on the modalities for granting mining titles and the procedures therefor³⁴, for every mining title application relating to a mining concession and an exploitation authorization for small or medium-scale mining operations and an application for renewal of a mining concession respectively. However, Article 13, which sets out the documents accompanying an exploration authorization application, Article 18, which specifies the file for an application to extend or modify an exploration authorization, and Article 31 relating to the file accompanying an artisanal mining exploitation application, provided only for an impact memorandum, given the limited potential impacts on the environment compared to small and medium-scale mining exploitation³⁵.

However, with the enactment of Law No. 25-12³⁶, which repealed Mining Law No. 14-05, the environmental impact assessment is no longer an obligation for all holders of mining titles and licenses.

2- Content of the environmental impact assessment:

The procedures relating to the environmental impact assessment commence with the presentation of the proposed activity before the commencement of the project subject to the study. This practical document is prepared during the pre-project phase, in parallel with the other economic and technical studies of the project, so that the important recommendations of these studies may be incorporated into the impact assessment to ensure its effectiveness in environmental preservation³⁷.

The environmental impact study is carried out at the expense of the project proponent by study firms³⁸, expert firms, or consultancy firms accredited by the ministry in charge of the environment³⁹.

The environmental impact assessment shall include a presentation of the proposed activity; a description of the original state of the site and its environment that may be affected by the proposed activity; a description of the potential impact on the environment and human health resulting from the proposed activity; proposed alternative solutions; a presentation of the effects of the proposed activity on cultural heritage, as well as its

effects on socio-economic conditions; and a presentation of mitigation measures that permit the reduction, elimination, and where possible, compensation of effects harmful to the environment and health⁴⁰.

Executive Decree No. 07-145 further required that the content of the environmental impact study, prepared on the basis of the project's scale and expected environmental impacts, include the following:

- 1 – Presentation of the project proponent including their surname or company headquarters, and where appropriate, their company and potential experience in the field of the proposed project and in other fields⁴¹;
- 2 – Presentation of the study firm accompanied by a copy of its accreditation decision issued by the Minister in charge of the environment;
- 3 – Analysis of alternatives and possible variables for the various project options with explanation and justification of the options adopted at the economic, technological, and environmental levels;
- 4 – Determination of the study area according to the boundaries concerned within the scope of the declaration pursuant to the provisions of Executive Decree No. 07-14 for classified installations, and within a radius not exceeding three (3) kilometers for projects mentioned in the annexes to this decree;
- 5 – Precise description of the original state of the site and its environment, including in particular its natural resources and biological diversity, as well as terrestrial, marine, or aquatic spaces and air quality that may be affected by the project, accompanied by a location plan at a scale of 1/2,500 and a block plan at a scale of 1/200 showing the allocation of buildings and land adjacent to the project site, as well as all easements⁴²;
- 6 – Precise description of the various project phases, particularly the construction, operation, and post-operation phases (dismantling of installations and restoration of the site to its previous state);
- 7 – Estimation of the types and quantities of residues, emissions, and damages that may arise during the various phases of project execution and operation (particularly waste, heat, noise, radiation, vibrations, odors, smoke, etc.)⁴³;
- 8 – Assessment of expected direct and indirect impacts in the short, medium, and long term of the project on the environment (air, water, soil, biological environment, health, etc.) and the method used for impact assessment⁴⁴;
- 9 – Cumulative effects that may arise during the various project phases;
- 10 – Description of measures to be taken by the project proponent to eliminate the damages resulting from the execution of the various project phases, or to reduce and/or compensate for them;
- 11 – Detailed environmental management plan, which serves as a program for monitoring mitigation and/or compensation measures implemented by the project proponent, with specification of implementation timelines;⁴⁵
- 12 – Financial allocations granted for the implementation of recommended measures;

- 13 – Any other work, information, document, or study submitted by the study firm to support or establish the content of the impact study or summary on the environment;⁴⁶
- 14 – The impact study or summary must be mandatorily accompanied by a descriptive report of the project prepared by the study firm, to be made available to the public during the period of the public inquiry.⁴⁷

3- Procedures for the environmental impact assessment:

The impact study or impact summary on the environment must be filed by the project proponent with the territorially competent Wali in fourteen (14) copies and two (2) digital copies endorsed by the study firm.⁴⁸ The territorially competent environmental services shall examine the content of the impact study or impact summary, upon assignment by the Wali, within a period not exceeding one (1) month from the date of notification of the application. They may request from the project proponent any necessary additional information or study. The project proponent is granted a period of two (2) months to submit the requested supplementary information. Upon expiration of this period, the environmental services shall reject the impact study or summary if the applicant has not filed any justified request for extension of the deadline. The applicant shall be notified of the rejection.⁴⁹

The Wali shall, by decision, order the opening of a public inquiry after the preliminary examination and acceptance of the impact study or summary, to invite third parties or any natural or legal person residing in the study area to express their views on the proposed project and its expected environmental impacts. This procedure applies to all projects, with the exception of those located in industrial zones and activity zones, within ports and customs-controlled areas, and projects carried out on the high seas that have previously been subject to a public inquiry.⁵⁰

4- Public Inquiry:

The public must be informed of the decision opening the public inquiry through posting at the headquarters of the wilaya and concerned municipalities, and at the project site locations, as well as through publication in two national dailies at the project proponent's expense. The decision shall specify the following:

- The subject of the public inquiry in detail;
- The duration of the inquiry, which shall not exceed one (1) month from the date of posting;
- The times and places where the public may make their observations on a numbered and initialed register opened for this purpose.⁵¹

Although the Algerian legislator recognized the citizen's right to participate in the study or impact summary during the opening of the public inquiry, this participation remains incomplete, as no provision was made for the possibility of holding public meetings with citizens during the public inquiry; the legislator merely provided for citizens to make their observations on a register opened for this purpose.⁵²

Consequently, this popular oversight has no role other than mere observations submitted, which may not even be read; this constitutes a mere procedure that must be respected without having any real effect in the event of a genuine threat to the environment.

Potential requests for examination of the impact study are sent to the territorially competent Wali. The Wali invites the person concerned to review the impact study at a place designated by the Wali and grants a period of fifteen (15) days for expressing views and observations.⁵³

The Wali shall, within the framework of the public inquiry, appoint an investigating commissioner responsible for ensuring compliance with the instructions regarding the posting and publication of the decision opening the public inquiry, as well as the register for collecting opinions.⁵⁴ The investigating commissioner is also tasked with conducting all investigations or collecting supplementary information aimed at clarifying the potential consequences of the project on the environment.⁵⁵ The investigating commissioner shall, upon completion of the mission, prepare a report containing the details of the investigations and supplementary information collected, and transmit it to the Wali.⁵⁶

The law did not specify who the investigating commissioner is or what qualifications they hold in the environmental field.

Upon conclusion of the public inquiry, the Wali shall prepare a copy of the various opinions obtained and, where applicable, the conclusions of the investigating commissioner, and shall invite the project proponent within a period not exceeding ten (10) days to submit a response memorandum.⁵⁷ Upon conclusion of the public inquiry, the impact study or summary file containing the opinions of the technical services and the results of the public inquiry, accompanied by the investigating commissioner's report and the project proponent's response memorandum regarding the opinions issued, shall be transmitted, as the case may be, to:

- The Minister in charge of the environment for the impact study; the territorially competent environmental services for the impact summary, who shall examine the impact study or summary and accompanying documents.

5- Approval of the Impact Study and Summary on the Environment:

In this context, they may contact the relevant ministerial departments and seek any expert assistance.⁵⁸

The technical services assigned by the Wali must, upon the opening of the public inquiry, rule on the impact study or summary within a period not exceeding one month from the date of receipt of the request for opinion. In the event of failure by the technical services to respond within this period and after one reminder, the opinion of these services shall be deemed favorable.⁵⁹

The Minister in charge of the environment shall approve the impact study. The rejection of the impact study must be reasoned.⁶⁰ The decision approving or rejecting the impact study shall be transmitted to the territorially competent Wali for notification to the

project proponent. The territorially competent Wali shall notify the project proponent of the decision approving or rejecting the impact summary.⁶¹

In the event that the impact study is rejected, and without prejudice to the judicial remedies provided for in the legislation in force, the project proponent may submit to the Minister in charge of the environment an administrative appeal accompanied by all justifications or supplementary information that may clarify and/or establish the technological and environmental choices of the impact study or summary application for a new examination. The new examination shall be the subject of a new decision according to the specified modalities.⁶²

The territorially competent environmental services shall monitor and follow up projects that have been the subject of an impact study or summary.⁶³ The project proponent may not commence construction works relating to projects subject to an impact study or summary before approval of the study or summary according to the modalities specified in this decree.⁶⁴

The Environmental and Sustainable Development Law punishes anyone who operates an installation without obtaining authorization with imprisonment of one year and a fine of five hundred thousand dinars (500,000 DA). The court may order a prohibition on the use of the installation until authorization is obtained, and may also order provisional enforcement of the prohibition. The court may also order the restoration of the premises to their original state within a period it shall determine.⁶⁵ Anyone who operates an installation in violation of a judicial order suspending its operation, or closing it, or after a prohibition order, shall also be punished.⁶⁶

Section Two: Impact Studies and Memoranda on the Environment in the Hydrocarbons Sector

Given the special nature of the hydrocarbons sector and the serious environmental risks it entails in connection with extraction, processing, transportation, storage, and conversion operations, the Algerian legislator has assigned this sector a special regime for environmental impact studies that differs from the general regime established under Law No. 03-10. Executive Decree No. 21-319 on the Licensing Regime for the Operation of Installations and Structures Pertaining to Hydrocarbons Activities established a dual classification distinguishing between installations and structures subject to an environmental impact study and those subject to an environmental impact memorandum, depending on the size of the installation, the nature of the activity, and the degree of its hazardousness. This section addresses the conditions and content of both the impact study and the impact memorandum on the environment in the hydrocarbons sector, while highlighting the distinctions between them and the general regime.

A) Conditions for the Environmental Impact Study or Memorandum in the Hydrocarbons Sector:

The installations and structures specified in Table (a) of Annex I⁶⁷ referred to in Executive Decree No. 21-319 of 14 August 2021, relating to the licensing regime for the

operation of installations and structures pertaining to hydrocarbons activities and the modalities for approval of risk studies related to exploration activities and their contents, are subject to the environmental impact study specific to the hydrocarbons sector. The installations or structures subject to the environmental impact memorandum are specified in Table (b) of Annex I⁶⁸ referred to in the same executive decree.

The environmental impact study or memorandum aims to determine the integration of a project within its environment, identifying and assessing the direct and/or indirect effects of the project and verifying that the relevant project has addressed the requirements relating to environmental protection. In this capacity, the environmental impact study or memorandum must present the measures necessary to eliminate, reduce, or compensate for the negative effects and to improve the positive effects of the project.⁶⁹

The environmental impact study or memorandum shall be carried out at the expense of the applicant by a specialized firm duly qualified pursuant to the regulations in force.⁷⁰

1- Content of the Environmental Impact Study:

- 1 – Summary of the environmental impact study report:
 - Presentation of significant results and proposed measures.
- 2 – Presentation of the project proponent and the study firm;
- 3 – The regulatory and normative context relating to the project's activities;
- 4 – Presentation of possible alternatives for the project through explanation and justification of the options adopted at the economic, technological, and environmental levels;
- 5 – Analysis of the original state of sites concerned by the project:
 - Definition and demarcation of the study area;
 - Detailed description of the original state of the site and its environment, particularly its natural resources, biological diversity, and terrestrial, marine, or aquatic spaces potentially affected by the project;
 - Description of the human, social, economic, and heritage context;
 - Description of the main social and cultural characteristics of local communities concerned by the project, particularly in terms of demography, housing, employment, health, land use, use of natural resources, and archaeological interest;
- 6 – Detailed description of the various project phases, particularly the construction, operation, and post-operation phases (dismantling of installations and restoration of sites to their original state);
 - Estimation of the types and quantities of residues, emissions, and damages that may arise during the various phases of project execution and operation, particularly liquid discharges, waste, heat, noise, radiation, vibrations, odors, smoke, etc.;
- 8 – Impact of the project on global environmental challenges: climate change, biological diversity, and preservation of the ozone layer;
- 9 – Resources consumed (water, energy, land use), etc.;

10 – Analysis of the project's effects on the relevant environments:

- Description of the methods and characteristics used in assessing environmental impacts, taking into account cumulative effects that may arise during the various project phases;
- Identification and assessment of direct and indirect environmental and social impacts in the short, medium, and long term;

11 – Description of the measures to be taken to eliminate the effects likely to cause damage during the various project phases, or to reduce and/or compensate for them. These relate particularly to measures aimed at eliminating, reducing, or compensating for the environmental impact, linked to the generation of:

- Drilling muds and hydrocarbon storage and de-oiling installations and water treatment;
- Domestic and industrial settling water, particularly oily water and/or water treatment;
- Gas flaring or venting, where applicable;
- Atmospheric pollutants, particularly volatile organic compounds;
- Special or hazardous waste;
- Noise;

12 – Description of measures established for the preservation of natural resources and energy, particularly their rational use;

13 – Description of the preliminary environmental management program, including particularly:

- Pollution prevention and control (leakage, spillage, atmospheric discharge, etc.) during the construction phase;
- Waste management;
- Management of contaminated sites and soils;
- Management of liquid and gaseous discharges;
- Environmental impact monitoring and follow-up program;
- Optimal use of natural resources;
- Hazardous materials management;
- Environmental information and awareness;
- Site abandonment and restoration program;

14 – Financial allocations dedicated to the implementation of recommended measures;

- Any other event, information, document, or study submitted by the study firm to support or establish the content of the relevant environmental impact study.⁷¹

2- Content of the Environmental Impact Memorandum:

- 1 – Detailed description of the original state of the site and its environment;
- 2 – Description of the planned installations and the processes used;
- 3 – The regulatory and normative context relating to the project's activities;
- 4 – Description of the human, social, economic, and heritage context;

- 5 – Description of the various project phases;
- 6 – Identification and assessment of the environmental impacts of the project during all phases of the life of the proposed installation;
- 7 – Description of the measures to be taken for the prevention of significant identified environmental effects of the project, or their reduction, mitigation, or compensation;
- 8 – Program for monitoring and follow-up of environmental indicators adapted to the nature of the activities and proposed installations, as well as procedures for managing environmental aspects (waste, discharges, noise, etc.);
- 9 – Presentation of possible alternatives for the project through explanation and justification of the options adopted at the economic, technological, and environmental levels;
- 10 – Non-technical summary of the memorandum.⁷²

B) Approval Procedures for Impact Studies and Memoranda on the Environment in the Hydrocarbons Sector:

The approval procedures for impact studies and memoranda on the environment in the hydrocarbons sector are distinguished by their specificity compared to the general regime established under Law No. 03-10. The legislator has assigned the competence for approval of impact studies to the hydrocarbons regulatory authority rather than the Minister in charge of the environment, while assigning the approval of impact memoranda to the territorially competent Wali. The legislator has also involved specialized consultative bodies in the examination and approval process, consisting of the consultative committee and the territorially competent hydrocarbons committee, with established deadlines for each stage of examination and approval. This sub-section analyzes the various procedures followed for approval of impact studies and memoranda on the environment in the hydrocarbons sector.

1- Approval Procedures for Environmental Impact Studies in the Hydrocarbons Sector:

The applicant submits the environmental impact study to the hydrocarbons regulatory authority for approval. The applicant submits the environmental impact memorandum to the territorially competent Wali for approval.⁷³

Where the environmental impact study meets the conditions previously stipulated, the hydrocarbons regulatory authority shall conduct a preliminary examination for the acceptance of the study with respect to the regulations in force and to the scientific and technical knowledge in this field, within a maximum period of forty-five (45) days from the date of its submission. During this period, the hydrocarbons regulatory authority may request from the applicant any additional information or assessment. The hydrocarbons regulatory authority shall notify the applicant of any reservations regarding the environmental impact study. The applicant must lift the reservations within a period not exceeding thirty (30) days from the date of notification, unless the deadline granted by the hydrocarbons regulatory authority is extended. The environmental impact study shall be rejected if the reservations are not lifted within this period and no extension has been granted.⁷⁴

After examination and acceptance, the hydrocarbons regulatory authority shall transmit the environmental impact study to the consultative committee and to the territorially competent hydrocarbons committee for their opinions.⁷⁵

The opinions of the consultative committee regarding conformity must be collected within the framework of a consultative meeting pursuant to Article 28 above, within a maximum period of forty-five (45) days from the date of correspondence. The chairperson of the territorially competent hydrocarbons committee must transmit the committee's opinions on the environmental impact study within a period not exceeding forty-five (45) days from the date of correspondence.⁷⁶

In the event that the consultative committee and/or the territorially competent hydrocarbons committee express reservations, the hydrocarbons regulatory authority shall notify the applicant of the reservations to be lifted. The applicant must lift the reservations and transmit the amended environmental impact study to the hydrocarbons regulatory authority within a period not exceeding thirty (30) days from the date of notification, unless an extension of the deadline is granted by the hydrocarbons regulatory authority.⁷⁷

The environmental impact study shall be rejected if the reservations are not lifted within the specified deadlines. The hydrocarbons regulatory authority must provide reasons for its rejection of the environmental impact study and notify the applicant thereof.⁷⁸

After receiving the amended environmental impact study, the hydrocarbons regulatory authority shall transmit it to the consultative committee and to the hydrocarbons committee, which must transmit their opinions on compliance with the reservations to the hydrocarbons regulatory authority within a period not exceeding thirty (30) days from the date of correspondence. Upon expiration of this period, the amended environmental impact study shall be deemed approved.⁷⁹

Upon declaration of conformity of the environmental impact study, or in the event of lifting of reservations within the specified deadlines, the hydrocarbons regulatory authority shall notify the applicant of the decision approving the environmental impact study.⁸⁰

The operator must, under its responsibility, update the environmental impact study in the following cases:

- An accident with a significant environmental impact at its installation/structure, or at a similar installation/structure;
- New facts justifying this, or to take into account new requirements and/or technical and scientific knowledge relating to environmental protection.

The operator must present the updated environmental impact study again to the hydrocarbons regulatory authority for approval, in accordance with the procedures provided for in this decree.⁸¹

2- Approval Procedures for Environmental Impact Memoranda in the Hydrocarbons Sector:

Upon receipt of the application file for an operating license for installations pertaining to hydrocarbons activities referred to in Table (b) of Annex I of this decree, in accordance with Article 7 above, the territorially competent Wali shall submit the environmental impact memorandum to the hydrocarbons committee for its opinion and shall open a public inquiry.⁸²

The hydrocarbons committee shall transmit its reservations and observations to the applicant within a period not exceeding forty-five (45) days from the date of correspondence. The applicant must lift the reservations and transmit the amended environmental impact memorandum to the hydrocarbons committee within a period not exceeding thirty (30) days from the date of notification, unless an extension of the deadline is granted by the hydrocarbons committee.⁸³

The environmental impact memorandum shall be rejected if the reservations are not lifted within the deadlines specified in Article 49 above and no extension has been granted. The territorially competent Wali must provide reasons for the rejection of the environmental impact memorandum and notify the applicant thereof.⁸⁴

After receiving the amended environmental impact memorandum, the hydrocarbons committee shall verify compliance with the reservations within a period not exceeding thirty (30) days. Upon expiration of this period, the amended environmental impact memorandum shall be deemed approved.⁸⁵

Upon declaration of conformity of the environmental impact memorandum, or in the event of lifting of reservations within the specified deadlines, the territorially competent Wali shall notify the applicant of the approval decision within a period not exceeding fifteen (15) days from the date of receipt of the positive opinion of the hydrocarbons committee.⁸⁶

The operator must, under its responsibility, update the environmental impact memorandum in the following cases:

- An accident with a significant environmental impact at its establishment or at a similar establishment;
- New facts justifying this, or to take into account new requirements and/or technical and scientific knowledge relating to environmental protection.

The applicant must present the updated environmental impact memorandum again to the Wali for approval, in accordance with the same procedures.⁸⁷

C) Public Inquiry Procedure Relating to Hydrocarbons Activities:

Hydrocarbons installations and structures, as well as exploration activities, are subject to a public inquiry. Projects located in industrial zones and activity zones that have previously been subject to a public inquiry are excluded.⁸⁸

The territorially competent Wali shall, by decision, open a public inquiry fifteen (15) days after receiving the impact studies or memoranda on the environment or risk

studies related to exploration activities. The duration of the inquiry shall not exceed thirty (30) days from the date of posting.⁸⁹

In the context of projects for installations and structures referred to in Table (a) of Annex I of this decree and projects related to exploration activities, the Wali shall invite the applicant to present, within seven (7) days after the opening of the public inquiry, the project and its effects, as well as the mitigation measures considered, to members of the hydrocarbons committee and to the relevant parties designated by the Wali.⁹⁰

The public must be informed of the decision opening the public inquiry for hydrocarbons installations and structures and exploration activities through posting at the headquarters of the wilaya and concerned municipalities, and at the project site locations, and through publication in two national daily newspapers. This decision shall specify:

- The subject of the public inquiry in detail;
- The times and places through which the public may make their observations on a numbered and initialed register opened for this purpose;
- The closing date of the inquiry.⁹¹

The applicant shall bear all expenses relating to the various publicity measures for the public inquiry and those related to the aforementioned presentation.⁹²

Potential consultation requests regarding the aforementioned studies or memoranda shall be transmitted to the territorially competent Wali. The Wali shall invite the person concerned to review the aforementioned studies or memoranda. Opinions and observations must be formulated and transmitted to the Wali before the closing of the public inquiry.⁹³

The Wali shall, within the framework of the public inquiry, appoint an investigating commissioner responsible for ensuring compliance with the requirements specified above, regarding the posting and publication of the decision opening the public inquiry and the register for collecting opinions.⁹⁴

The investigating commissioner is also tasked with conducting all investigations or collecting supplementary information aimed at clarifying the potential consequences of the project on the environment.⁹⁵

The investigating commissioner shall, after the conclusion of the public inquiry, prepare a copy of the various opinions obtained and their conclusions, and shall invite the applicant, where appropriate, within reasonable timeframes, to submit a response memorandum. The closing of the public inquiry shall culminate in a report prepared by the investigating commissioner. This report must contain the results, opinions, and response memoranda mentioned above. This report shall be transmitted to the Wali within fifteen (15) days of the closing of the public inquiry. For projects involving installations and structures referred to in Table (a) of Annex I of this decree and projects related to exploration activities, the report on the public inquiry must be transmitted to the hydrocarbons regulatory authority within fifteen (15) days.⁹⁶

D) Differences between the Environmental Impact Study under Law No. 03-10 and Impact Studies and Memoranda on the Environment in the Hydrocarbons Sector:

The Algerian legislator was keen to establish a comprehensive legal system for assessing the environmental impacts of development and industrial projects before their implementation, in application of the principles of prevention and precaution, which constitute the cornerstone of the national environmental policy. This commitment materialized in the consecration of the environmental impact assessment as a mandatory preliminary procedure. However, upon closer examination of the legal and regulatory texts, it becomes apparent that the legislator was not content with a unified system for these studies, but rather established two parallel systems that differ in several fundamental respects.

Identifying these differences is of great scientific and practical importance. From a scientific perspective, it contributes to understanding the legislative philosophy adopted by the Algerian legislator in constructing the preliminary environmental assessment system and the reasons for providing the hydrocarbons sector with special provisions. From a practical perspective, it enables economic operators and investors in the hydrocarbons sector to precisely determine their legal obligations and distinguish between what is subject to an impact study and what is subject to an impact memorandum, and to know the competent authorities for approval, the procedures to be followed, and the deadlines for each stage.

The following analysis examines the differences and distinctions between these three instruments according to specific criteria including: legal basis, scope of application, objective, executing entity, content, filing, examination, public inquiry and approval procedures, deadlines, mandatory updating, with the aim of drawing a clear and comprehensive picture of the legal structure of the environmental impact assessment system in Algerian legislation.

1- Legal basis:

The environmental impact study under Law No. 03-10 is governed by Executive Decree No. 07-145, as amended and supplemented. The environmental impact study and memorandum in the hydrocarbons sector are governed by Executive Decree No. 21-319.

2- Scope of application:

The environmental impact study under Law No. 03-10 applies to development projects, structures, fixed installations, factories, and all works and construction and development programs affecting the environment (Annex I of Decree 07-145).

The environmental impact study in the hydrocarbons sector applies to the major installations and structures specified in Table (a) of Annex I of Decree 21-319 (refining installations, extraction and processing, hydrocarbon pipeline transport structures, conversion installations, gas filling and storage ≤ 200 tons, asphalt ≤ 500 tons, fuel storage $\leq 10,000$ tons, etc.).

The environmental impact memorandum in the hydrocarbons sector applies to smaller installations specified in Table (b) of Annex I (gas filling and storage > 6 tons and less than 200 tons, asphalt less than 500 tons, fuel storage $\leq$ 50 tons and less than 10,000 tons, petrol stations, lubricants, etc.).

3- Objective:

The environmental impact study under Law No. 03-10 aims to identify the direct and indirect impacts of the project on the environment and human health.

The environmental impact study in the hydrocarbons sector aims to determine the integration of the project within its environment, identify and assess direct and/or indirect effects, and verify that the project addresses environmental protection requirements.

The environmental impact memorandum in the hydrocarbons sector has the same objective as the impact study but with simplified content proportionate to the size of the installation.

4- Executing entity:

The environmental impact study under Law No. 03-10 is carried out by study, expert, or consultancy firms accredited by the ministry in charge of the environment.

Both the impact study and the impact memorandum on the environment in the hydrocarbons sector are carried out by a specialized firm duly qualified pursuant to the regulations in force.

5- Study content:

The environmental impact study under Law No. 03-10 contains 14 elements including presentation of the project proponent, description of the original state, description of impacts, alternative solutions, mitigation measures, environmental management plan, etc.

The environmental impact study in the hydrocarbons sector contains more detailed content also comprising 14 elements, with the addition of elements specific to the hydrocarbons sector: impact of the project on global environmental challenges, drilling muds, gas flaring or venting, volatile organic compounds, site abandonment program.

The environmental impact memorandum in the hydrocarbons sector contains simplified content comprising 10 basic elements: description of the site and installations, identification and assessment of impacts, measures, monitoring program, non-technical summary.

*** Filing authority:**

The environmental impact study under Law No. 03-10 is filed with the territorially competent Wali in 14 copies and 2 digital copies.

The environmental impact study in the hydrocarbons sector is filed with the hydrocarbons regulatory authority.

The environmental impact memorandum in the hydrocarbons sector is filed with the territorially competent Wali.

*** Preliminary examination:**

It is conducted by the territorially competent environmental services within one month for the environmental impact study under Law No. 03-10.

The hydrocarbons regulatory authority examines the environmental impact study in the hydrocarbons sector within 45 days.

The hydrocarbons committee examines the environmental impact memorandum in the hydrocarbons sector within 45 days.

*** Public inquiry:**

The environmental impact study under Law No. 03-10 is opened by decision of the Wali, with a duration of one month from the date of posting, with notification by posting and publication in two national dailies.

The environmental impact study in the hydrocarbons sector is opened by decision of the Wali 15 days after receipt of the study, with a duration of 30 days, with invitation of the applicant to present the project to members of the hydrocarbons committee within 7 days.

The environmental impact memorandum in the hydrocarbons sector is opened by decision of the Wali 15 days after receipt of the memorandum, with a duration of 30 days.

*** Approval authority:**

For the study under Law No. 03-10: the Minister in charge of the environment for the impact study, and the territorially competent environmental services for the impact summary.

The hydrocarbons regulatory authority, after consulting the consultative committee and the territorially competent hydrocarbons committee, provides approval for the environmental impact study in the hydrocarbons sector.

For the environmental impact memorandum in the hydrocarbons sector, the territorially competent Wali, after consulting the hydrocarbons committee.

*** Deadline for lifting reservations:**

The applicant has two (2) months in the environmental impact study under Law No. 03-10.

The applicant in the environmental impact study and memorandum in the hydrocarbons sector has 30 days from the date of notification (extendable).

*** Mandatory updating:**

In the environmental impact study under Law No. 03-10, this was not expressly provided for.

In the environmental impact study and memorandum in the hydrocarbons sector, updating is mandatory in the event of an accident with a significant environmental impact or new facts.

*** Notification deadline for approval:**

Not specified in the environmental impact study under Law No. 03-10.

In the environmental impact study in the hydrocarbons sector, notification of approval is immediate upon declaration of conformity or lifting of reservations.

In the environmental impact memorandum in the hydrocarbons sector, the notification deadline does not exceed 15 days from the date of receipt of the positive opinion of the hydrocarbons committee.

Chapter II: Environmental Hazard Study

The issue of the environment in its various dimensions, and specifically with regard to the means of its protection and the conservation of its resources, is the most important and pressing issue of our contemporary world. Institutions concerned with environmental affairs have been established: at the international level, the United Nations created a special body for the environment under the name United Nations Environment Programme; at the Arab level, the Council of Arab Ministers Responsible for Environmental Affairs was established to direct, coordinate, and follow up Arab work in environmental protection; at the national level, many states established either special ministries, governmental bodies, or official centers for environmental affairs. This interest was also manifested in the holding of international and regional scientific conferences and seminars concerned with addressing environmental issues.

Various legal mechanisms for environmental protection have also emerged, constituting an application and embodiment of environmental principles, particularly the principles of prevention and precaution, including the hazard study procedure, which first appeared in France and was adopted in many countries worldwide, including Algeria.

This chapter will be studied in two sections: Section One addresses the environmental hazard study under Law No. 03-10, and Section Two addresses the hazard study or memorandum in the hydrocarbons sector.

Section I: Environmental Hazard Study under Law No. 03-10

In addition to the environmental impact assessment, which concerns the evaluation of environmental effects of projects, the Algerian legislator established another preventive procedure relating to the environmental hazard study. This procedure aims to identify and analyze the risks and dangers arising from the operation of classified installations and to determine the measures capable of reducing the probability of accidents occurring and mitigating their effects. Law No. 03-10 provided in Article 21 for the obligation to submit a study relating to the hazards and potential repercussions of the project before granting an operating license for classified installations. Its provisions were regulated in detail under Executive Decree No. 06-198 and the joint ministerial order specifying the modalities for examination of hazard studies and their approval. This section aims to explain the concept of the environmental hazard study, its legal framework, conditions, and approval procedures.

A) Definition of the Environmental Hazard Study:

The state pursues a range of development policies to advance its economy and achieve the requirements and well-being of its citizens. However, these development policies may negatively affect the environment, which is why the environmental dimension was integrated within the framework of development, through the creation of preventive mechanisms that limit the negative impacts of development activities, including the hazard study procedure, which is considered a modern concept.

Defining the term "environmental hazard study" requires examining both its linguistic and terminological definitions.

1- Legal Definition of the Environmental Hazard Study:

The environment, according to Article 4 of Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development⁹⁷: *"The environment consists of abiotic and biotic natural resources such as air, atmosphere, water, land, subsoil, flora, and fauna, including genetic heritage, and forms of interaction between these resources, as well as places, landscapes, and natural landmarks."*

The Algerian legislator did not define the hazard study in Law No. 03-10 but merely stated in Article 21 the obligation to conduct a study relating to the hazards and potential repercussions of the project on the interests mentioned in Article 18.⁹⁸

Before the repeal of Law No. 04-20 on the Prevention of Major Risks and Disaster Management within the Framework of Sustainable Development by Law No. 24-04 on the Rules of Prevention, Intervention, and Reduction of Disaster Risks within the Framework of Sustainable Development, the legislator had required that every industrial installation be subject to a hazard study before commencing its operation, but did not define the hazard study.⁹⁹ Article 75 of Law No. 24-04 on the Rules of Prevention, Intervention, and Reduction of Disaster Risks within the Framework of Sustainable Development, which repealed Law No. 04-20, required that every industrial installation, prior to its commissioning and operation, be subject to a vulnerability study specific to disaster risks. Article 2 of this law defined vulnerability as the degree of exposure of populations and property to risks, encompassing conditions related to physical, social, economic, or environmental factors or processes that weaken the resistance of such populations and their property. Article 3 of this law enumerated disaster risks, and Article 20 provided that there must be a general prevention plan for each risk mentioned in Article 3 by decree¹⁰⁰, comprising the totality of rules and procedures aimed at reducing vulnerability with respect to risks that could lead to the occurrence of a danger or disaster risks and preventing the resulting effects¹⁰¹.

Law No. 19-13 regulating hydrocarbons activities referred to it in Articles 155 and 156 as a study of risks to health, safety, and the environment¹⁰².

According to Article 2 of Executive Decree No. 06-198 establishing the regulations applicable to classified installations for environmental protection, hazard was defined as: *"An inherent characteristic of a substance, agent, energy source, or situation that may result in damage to persons, property, and the environment."*¹⁰³

Article 12 of the same decree provided that the purpose of the hazard study is to identify the direct or indirect risks that expose persons, property, and the environment to danger resulting from the activity of the establishment, whether the cause is internal or external. The hazard study must enable the determination of technical measures for reducing the probability of accidents occurring and mitigating their effects, as well as organizational measures for accident prevention and management.¹⁰⁴

2- Doctrinal Definition of the Environmental Hazard Study:

The environmental hazard study refers to the procedure involving an inventory of accidents and dangers that may arise from the operation of a classified installation, and the determination of specific measures for reducing the probability of accidents occurring and minimizing their effects.¹⁰⁵

The hazard study is the identification and analysis of risks and their internal and external causes for the installation, which allows for greater consultation among local actors to identify areas where urbanization control and property control are necessary to limit the effects of accidents.¹⁰⁶

B) General Provisions for the Environmental Hazard Study of Classified Installations:

The Algerian legislator provided in Article 15 of Law No. 22-18 on Investment¹⁰⁷ the following: *"The investor must undertake the following commitments:*
- *To ensure respect for the legislation in force and standards, particularly those relating to environmental protection, public health, competition, labor, and transparency of accounting, fiscal, and financial information;*

- *To provide the necessary information requested by the administration for the monitoring and evaluation of the implementation of the provisions of this law."*

The principle of freedom of investment has become subject to the constraint of environmental protection, resulting in differences in viewpoints between proponents of investment freedom and advocates of environmental protection. Therefore, the Environmental Law No. 03-10 provided in Article 21 for the hazard study mechanism: *"The issuance of the license provided for in Article 19 above shall be preceded by the submission of an impact study or impact summary, a public inquiry, and a study relating to the hazards and potential repercussions of the project on the interests mentioned in Article 18 above. Where applicable, after obtaining the opinion of the relevant ministries and local authorities. This license shall not be granted until the procedures mentioned in the above paragraph have been fulfilled."*

It can be deduced from this article that before obtaining an operating license for classified installations, the applicant must submit a study relating to hazards.

Every application for an operating license for a classified installation must be preceded, as the case may be and in accordance with the list of classified installations¹⁰⁸, by a hazard study prepared and approved according to the conditions specified in this decree.¹⁰⁹

Classified installations are divided, according to Article 3 of Executive Decree No. 06-198, into four categories. Only classified installations of the first category, subject to a ministerial license, and the second category, subject to a license from the territorially competent Wali, are subject to the hazard study. This was confirmed by the joint ministerial order specifying the modalities for examination of hazard studies and their approval.¹¹⁰

1- Conditions of the Environmental Hazard Study for Classified Installations:

The hazard study is carried out at the expense of the project proponent by study firms, expert firms, or consultancy firms specializing in this field and accredited by the Minister in charge of the environment, after consultation with the relevant ministers where necessary.¹¹¹

The Algerian legislator required that the hazard study contain the following elements:

- 1 – General presentation of the project;
- 2 – Description of the places adjacent to the project and the surroundings that may be affected in the event of an accident, including:
 - a – **Physical data:** geological, hydrological, and climatic and natural conditions (topographic and seismic exposure);
 - b – **Socio-economic and cultural data:** population, housing, water points, water catchment, land use, economic activities, transport routes, or protected areas;
- 3 – Description of the project and its various installations (location, size, capacity, inputs, chosen methodology, project operation, products, and materials necessary for its execution...) with the use of maps where necessary (general plan, location plan, block plan, movement plan, etc.);
- 4 – Identification of all risk factors arising from the operation of each installation. This assessment must take into account not only internal factors but also external factors to which the area is exposed;
- 5 – Analysis of risks and consequences at the classified installation level to identify potential emergencies in a comprehensive manner, assign them a rating reflecting their severity and probability of occurrence so that they can be classified, as well as the risk assessment methodology used for preparing the hazard study;
- 6 – Analysis of potential effects on the population in the event of accidents (including workers within the establishment), the environment, and expected economic and financial effects;
- 7 – Modalities for organizing site security, prevention of major accidents, the safety management system, and emergency response resources;¹¹²
- 8 – Location of the classified installation to be constructed on a map at a scale between 1/25,000 and 1/50,000, clearly legible;
- 9 – Location plan at a scale of at least 1/2,500, clearly legible, of the surroundings of the installation up to a distance equal to at least one-tenth (1/10) of the posting area specified in the list of classified installations, without being less than one hundred (100)

meters. All buildings with their designations, railway tracks, public roads, water points, channels, and irrigation ditches shall be marked on this plan;

10 – General plan at a scale of at least 1/200, clearly legible, showing the measures the classified installation intends to take up to at least thirty-five (35) meters from the installation, the designation of neighboring buildings and lands, and the layout of existing road networks.¹¹³

2- Procedures for the Environmental Hazard Study of Classified Installations:

The environmental hazard study for first-category classified installations is examined by a joint inter-ministerial committee composed of representatives of the Minister in charge of civil protection and the Minister in charge of the environment. For second-category classified installations, the examination is conducted by a wilaya-level committee established at each wilaya, composed of representatives of the wilaya directorates of civil protection and environment.¹¹⁴

Committee members are appointed, upon proposal of the authority to which they belong, for a period of three years, renewable by decision of the Minister in charge of the environment for the joint inter-ministerial committee, or the territorially competent Wali for the wilaya committee.¹¹⁵ The committees may call upon any institution, administration, or expert who may assist in their work, given their competence.¹¹⁶

The project proponent shall file the hazard study with the territorially competent Wali in eight copies.¹¹⁷

The territorially competent Wali shall transmit the hazard study within five days to: the joint inter-ministerial committee for first-category installations, or the wilaya committee for second-category installations.¹¹⁸

The committees shall examine the hazard studies in accordance with the provisions of Executive Decree No. 06-198, and may request from project proponents any necessary information or supplementary study, within a period not exceeding forty-five days from the date of their notification by the Wali.¹¹⁹ The project proponent is granted fifteen days to submit any supplementary study requested. The examination of the hazard study shall be deferred if this deadline is exceeded.¹²⁰

Upon completion of the examination of the hazard study, the committee shall meet for the purpose of approving it. The opinion of each member must be recorded in the minutes of the committee's proceedings.¹²¹ The committee secretariat shall prepare the approval decision for the hazard study if the study is found to be in conformity. If the study is not in conformity, the secretariat shall prepare a rejection decision.¹²²

The approval or rejection decision for the hazard study of a first-category installation shall be signed by the Minister in charge of interior affairs and the Minister in charge of the environment. The approval or rejection decision for the hazard study of a second-category installation shall be signed by the territorially competent Wali.¹²³

The approval or rejection decision for the hazard study of a first-category installation shall be transmitted to the territorially competent Wali¹²⁴, who shall notify the decision to the project proponent of the relevant installation.¹²⁵

Section II: Hazard Studies and Memoranda in the Hydrocarbons Sector

In line with the specificity and sensitivity of the hydrocarbons sector from a security and environmental perspective, the Algerian legislator has established a special system for hazard studies in this sector that differs from the hazard study regime established for classified installations under Law No. 03-10. Executive Decree No. 21-319 distinguished between two categories of instruments: the hazard study, to which installations and structures of high hazardousness specified in Table (a) of Annex I are subject; and the hazard memorandum, to which less hazardous installations specified in Table (b) of the same annex are subject. This section addresses the conditions and content of both the hazard study and the hazard memorandum in the hydrocarbons sector.

A) Conditions for the Hazard Study or Memorandum in the Hydrocarbons Sector:

The installations and structures specified in Table (a) of Annex I¹²⁶ of Executive Decree No. 21-319 of 14 August 2021 are subject to the hazard study specific to the hydrocarbons sector. The installations or structures subject to the hazard memorandum are specified in Table (b) of Annex I¹²⁷ of the same executive decree.¹²⁸

The hazard study or memorandum aims to identify the direct or indirect risks that expose persons, property, and the environment to danger resulting from the activity of hydrocarbons installations and structures.¹²⁹ The hazard study or memorandum must enable the determination of technical measures for reducing the probability of accidents occurring and mitigating their effects, as well as organizational measures for accident prevention and management.¹³⁰

The hazard study or memorandum is carried out at the expense of the applicant by a specialized firm duly qualified pursuant to the regulations in force.¹³¹

1- Content of the Hazard Study in the Hydrocarbons Sector:

- 1 – General presentation of the project;
- 2 – Description of the immediate surroundings of the project and adjacent places that may be affected in the event of an accident, through an inventory of neighboring activities and establishments, zones, site developments, and structures that could be the original cause of, or exacerbate, the hazard or the consequences of a major accident, and cascading effects;
- 3 – Description of the project and its various installations (location, size, capacity, inputs, chosen methodology, operation, products, and materials necessary for its execution...) with the use of maps where necessary (overall plan, location plan, block plan, movement plan, etc.);

4 – Assessment of previous accident cases and analysis of experience exchange for similar installations;

5 – Description of the procedure and methods for identifying, analyzing, and assessing risks and their consequences, with justification of the means or calculation models used;

6 – Identification of all risk factors that may arise from the operation of each significant installation. This identification must take into account the internal and external factors to which the area is exposed;

7 – Analysis of risks and their consequences linked to the operation of the installation or structure to identify the possible effects in a comprehensive manner, assigning them a rating reflecting their severity and probability of occurrence. This analysis must identify all risks comprehensively, contain modeling work, map the main scenarios that may arise, and assign a classification in terms of severity and probability to prioritize risks;

8 – Analysis of possible cascading effects;

9 – Classification of risks according to the assigned rating;

10 – Analysis of potential effects on the population in the event of accidents (including workers within the installation or structure), on the environment, and expected economic and financial effects;

11 – Description of preventive and protective measures to reduce the probability of a major accident occurring and to limit its resulting effects, including the following elements:

- Description of technical standards and equipment installed for the integrated safety of installations and structures;

- Description of safety equipment and arrangements installed in the installation to limit the consequences of major accidents for the preservation of the health and safety of persons and protection of installations and the environment;

- Description of every technical and non-technical measure necessary to reduce the consequences of a major accident;

12 – Major risk register containing the results of qualitative risk analysis, quantitative risk analysis, and risk response planning;

13 – General conclusion, which must relate to the acceptability of scenarios and the means envisaged by the operator to control risks;

14 – Non-technical summary of the study.¹³²

2- Content of the Hazard Memorandum in the Hydrocarbons Sector:

1 – Presentation of the installation environment;

2 – Description of the installation;

3 – Identification of all risk factors resulting from the operation of each installation, taking into account internal and external factors to which the area is exposed;

4 – Analysis of experience exchange (accidentology) for similar installations;

5 – Identification of hazards and analysis and assessment of risks and their consequences;

6 – Description of preventive and protective measures to reduce the probability of accidental events occurring and to limit their consequences;

7 – General conclusion, which must relate to the acceptability of scenarios and the means envisaged by the operator to control risks.¹³³

B) Approval Procedures for Hazard Studies and Memoranda in the Hydrocarbons Sector:

The approval procedures for hazard studies and memoranda in the hydrocarbons sector are organized within an administrative process comprising several stages, in which the approval path for the hazard study differs from that for the hazard memorandum, whether in terms of the authority competent for approval, the consultative bodies participating in the examination, or the deadlines for each stage. While the hydrocarbons regulatory authority approves hazard studies after consulting the consultative committee and the territorially competent hydrocarbons committee, the territorially competent Wali is competent for approving hazard memoranda after consulting the hydrocarbons committee. The legislator required updating these studies at least every five years, or upon the occurrence of major accidents or new facts justifying this. This sub-section presents the details of the approval procedures for both hazard studies and memoranda in the hydrocarbons sector.

1- Approval Procedures for Hazard Studies in the Hydrocarbons Sector:

The applicant submits the hazard study to the hydrocarbons regulatory authority for approval. The applicant submits the hazard memorandum to the territorially competent Wali for approval.¹³⁴

Where the hazard study meets the conditions mentioned above, the hydrocarbons regulatory authority shall conduct a preliminary examination for the acceptance of the study with respect to the regulations in force and scientific and technical knowledge in this field, within a maximum period of forty-five (45) days from the date of its submission. During this period, the hydrocarbons regulatory authority may request from the applicant any additional information or assessment. The hydrocarbons regulatory authority shall notify the applicant of any potential reservations regarding the hazard study.¹³⁵

The applicant must lift the reservations on the hazard study within a period not exceeding thirty (30) days from the date of notification, unless an extension is granted by the hydrocarbons regulatory authority. The hazard study shall be rejected if the reservations are not lifted within this period and no extension has been granted.¹³⁶

After examination and acceptance, the hydrocarbons regulatory authority shall transmit the hazard study to the consultative committee and to the territorially competent hydrocarbons committee for their opinions.¹³⁷ The consultative committee comprises representatives of the hydrocarbons regulatory authority, the ministry in charge of the environment, and the general directorate of civil protection.¹³⁸ The opinions of the

consultative committee regarding conformity must be collected within the framework of a consultative meeting, within a maximum period of forty-five (45) days from the date of correspondence.¹³⁹

In the event of reservations by the consultative committee and/or the territorially competent hydrocarbons committee, the hydrocarbons regulatory authority shall notify the applicant of the reservations to be lifted. The applicant must lift the reservations and transmit the amended hazard study to the hydrocarbons regulatory authority within a period not exceeding thirty (30) days from the date of notification, unless an extension is granted by the hydrocarbons regulatory authority.¹⁴⁰

After receiving the amended hazard study, the hydrocarbons regulatory authority shall transmit it to the consultative committee and the territorially competent hydrocarbons committee, which must transmit their opinions on compliance with the reservations within a period not exceeding thirty (30) days from the date of correspondence. Upon expiration of this period, the amended hazard study shall be deemed approved.¹⁴¹

The hazard study shall be rejected if the reservations are not lifted within the specified deadlines. The hydrocarbons regulatory authority must provide reasons for its rejection of the hazard study and notify the applicant thereof.¹⁴²

Upon declaration of conformity of the hazard study or in the event of lifting of reservations within the specified deadlines, the hydrocarbons regulatory authority shall notify the applicant of the decision approving the hazard study. The territorially competent Wali shall also be informed thereof.¹⁴³

The operator must update the hazard study, under its responsibility, at least every five (5) years. This updating must also be carried out in the following cases:

- A major accident at its installation or structure, or at a similar installation or structure;
- New facts justifying this, or to take into account new technical safety knowledge.

The operator shall present the updated hazard study again to the hydrocarbons regulatory authority for approval in accordance with the aforementioned procedures.¹⁴⁴

2- Approval Procedures for Hazard Memoranda in the Hydrocarbons Sector:

Upon receipt of the application file for an operating license for installations pertaining to hydrocarbons activities concerned with hazard memoranda, the territorially competent Wali shall submit the hazard memorandum to the hydrocarbons committee for its opinion.¹⁴⁵

The hydrocarbons committee shall transmit its reservations and observations to the applicant within a period not exceeding forty-five (45) days from the date of correspondence.¹⁴⁶

The applicant must, regarding the hazard memorandum, lift the reservations and transmit the amended hazard memorandum to the hydrocarbons committee within a period not exceeding thirty (30) days from the date of notification, unless an extension is

granted.¹⁴⁷ The hazard memorandum shall be rejected if the reservations are not lifted within the specified deadlines. The rejection of the hazard memorandum must be reasoned and notified to the applicant.¹⁴⁸

After receiving the amended hazard memorandum, the hydrocarbons committee shall verify compliance with the reservations within a period not exceeding thirty (30) days from the date of receipt. Upon expiration of this period, the amended hazard memorandum shall be deemed approved.¹⁴⁹

Upon declaration of conformity of the hazard memorandum or in the event of lifting of reservations within the specified deadlines, the territorially competent Wali shall notify the applicant of the approval decision within a period not exceeding fifteen (15) days from the date of receipt of the positive opinion.¹⁵⁰

The operator must update the hazard memorandum at least every five (5) years, and also in the following cases:

- A major accident at its establishment or at a similar establishment;
- New facts justifying this, or to take into account new technical safety knowledge.

The operator shall present the updated hazard study again to the territorially competent Wali for approval in accordance with the aforementioned procedures.¹⁵¹

3) Risk Studies Related to Exploration Activities in the Hydrocarbons Sector:

Exploration activities in the hydrocarbons sector are distinguished by their exploratory nature, which includes exploratory drilling, geophysical works, water well drilling, life camp development, and access road opening. These activities involve special risks relating to health, safety, and the environment. Therefore, the Algerian legislator assigned these activities a special regime for risk studies that differs from both the hazard study and hazard memorandum established for existing installations and structures. Pursuant to Article 73 of Executive Decree No. 21-319, the applicant must, before carrying out any exploration activity, submit a comprehensive risk study containing all risks arising from the works planned for execution. This sub-section addresses the conditions, content, and approval procedures of this study.

1- Conditions for Risk Studies Related to Exploration Activities in the Hydrocarbons Sector:

Before carrying out any exploration activity, within the framework of an upstream concession, hydrocarbon contract, or prospecting license, the applicant must submit a risk study on health, safety, and the environment. This study must contain all risks arising from the works planned for execution in the exploration and/or prospecting area, particularly:

- Exploratory and stratigraphic drilling;
- Geophysical works (seismic);
- Water well drilling;
- Life camp development;
- Access road opening.¹⁵²

The risk study related to exploration activities shall contain:

- 1 – Presentation of the applicant and the study firm;
- 2 – Summary of the risk study report;
- 3 – Detailed description and analysis of the initial state of the exploration area's socio-economic and environmental conditions, including particularly the basic and/or sensitive characteristics of the various elements of the terrestrial and/or marine environment;
- 4 – Detailed description of the various phases of hydrocarbons exploration works (preparation, execution, site abandonment, and restoration phases), including particularly the characteristics of the means, techniques, and procedures implemented, as well as the materials and resources used;
- 5 – Methodology applied for risk identification and analysis;
- 6 – Analysis of previous accident cases;
- 7 – Identification and assessment of hazards arising from exploration activity relating to health, safety, and the environment;
- 8 – Assessment of direct and indirect, immediate and deferred risks linked to the identified hazards, taking into account those related to hydrocarbons exploration activity according to surface and sub-surface conditions, particularly with respect to drilling operations;
- 9 – Description of proposed prevention and protection measures to limit the consequences arising from risks related to exploration activity on health, safety, and the environment;
- 10 – Detailed description of monitoring and oversight measures.¹⁵³

Before the actual commencement of works covered by the risk study, a detailed re-assessment of risks arising from each of the aforementioned works must be carried out under the responsibility of the applicant. The re-assessment must be transmitted to the hydrocarbons regulatory authority for examination.¹⁵⁴

In the event of the integration of any additional activity not covered by the initial risk study, such as drilling new wells or new seismic survey campaigns, and before commencing them, the study must be updated, and this update must be submitted to the hydrocarbons regulatory authority for approval.¹⁵⁵

The risk study is carried out at the expense and under the responsibility of the applicant by a specialized firm duly qualified pursuant to the regulations in force.¹⁵⁶

2- Approval Procedures for the Risk Study Related to Exploration Activities in the Hydrocarbons Sector:

The hazard study is submitted before engaging in exploration activity by the applicant to the hydrocarbons regulatory authority against an acknowledgment of receipt.¹⁵⁷

The hydrocarbons regulatory authority shall conduct the preliminary examination for the acceptance of the risk study within a maximum period of thirty (30) days. The

applicant must provide the hydrocarbons regulatory authority with any additional information or study it requests. The applicant has a period of thirty (30) days from the date of the request to provide the requested additional information. This period may be extended at the applicant's request. Failure to respond by the applicant within this period shall be deemed a withdrawal of the application.¹⁵⁸

Where the risk study meets the specified conditions, the hydrocarbons regulatory authority shall transmit the study to the territorially competent Wali(s) for the opening of the public inquiry and for consultation with the hydrocarbons committee.¹⁵⁹

The territorially competent Wali(s) must provide the hydrocarbons regulatory authority with the committee's opinions and the results of the public inquiry within a period not exceeding forty-five (45) days from the date of correspondence.¹⁶⁰

The hydrocarbons regulatory authority shall notify the applicant of any potential reservations regarding the risk study and the results of the public inquiry. The applicant must lift the reservations within a period not exceeding thirty (30) days from the date of notification, except in the event of an extension of the deadline granted by the hydrocarbons regulatory authority.¹⁶¹

The risk study shall be rejected if the reservations are not lifted within thirty (30) days from the date of notification and no extension has been granted. The hydrocarbons regulatory authority must provide reasons for the rejection of any risk study and notify the applicant thereof.¹⁶²

Upon declaration of conformity of the risk study or in the event of lifting of reservations within thirty (30) days from the date of notification, the hydrocarbons regulatory authority shall notify the applicant and the National Agency for the Valorization of Hydrocarbon Resources (ALNAFT) of the approval decision.¹⁶³

D) Differences between the Environmental Hazard Study under Law No. 03-10, Hazard Studies and Memoranda, and Risk Studies Related to Exploration Activities in the Hydrocarbons Sector:

The Algerian legislator was not content with establishing environmental impact studies as a preventive mechanism, but also consecrated alongside them other technical studies concerned with identifying and analyzing the risks and dangers arising from the operation of industrial installations, in embodiment of the principles of prevention and precaution. This resulted in the existence of four types of risk-related studies distributed between the general regime and the special regime for the hydrocarbons sector.

E) Comprehensive Comparison of All Seven Technical Studies:

All seven technical studies can be classified along several axes:

1- Nature and Purpose: The seven studies fall into two fundamental categories: impact studies (three types) and hazard/risk studies (four types).

2- Legislative Framework: The environmental impact study and environmental hazard study belong to the general environmental protection system under Law No. 03-

10, while the other five types belong to the special hydrocarbons sector system under Law No. 19-13 and Executive Decree No. 21-319.

3- Scope of Application: The studies under Law No. 03-10 have a broad scope covering various industrial sectors, while the five hydrocarbons studies are limited exclusively to that sector, with distinctions based on installation size, hazardousness, and activity nature.

4- Content: Studies range from 14 detailed elements (impact and hazard studies in hydrocarbons) to 7 elements (hazard memorandum).

5- Approval Authority: Approval authority is distributed among three main bodies: the Minister in charge of the environment, the hydrocarbons regulatory authority, and the territorially competent Wali.

6- Consultative Bodies: Various bodies participate in examination, from inter-ministerial committees to the consultative committee and hydrocarbons committee.

7- Public Inquiry: All studies are subject to public inquiry except the environmental hazard study under Law No. 03-10, where this was not expressly provided for.

8- Deadlines: The preliminary examination period is 45 days for most studies, reduced to 30 days for exploration risk studies.

9- Mandatory Updating: No periodic updating is required for studies under Law No. 03-10; impact studies and memoranda in hydrocarbons must be updated upon significant events; hazard studies and memoranda must be updated every 5 years; exploration risk studies require the strictest updating regime.

10- Bodies Notified of Approval Decisions: The project proponent is notified in all cases, with the National Agency for Hydrocarbon Resource Valorization (ALNAFT) also notified for exploration risk studies.

Conclusion:

Following the in-depth study of technical studies for projects involving environmentally harmful activities in Algerian legislation, it can be stated that the Algerian legislator has largely succeeded in building a legal system for preliminary environmental technical studies. However, this system is characterized by complexity and intricacy resulting from the multiplicity of legal and regulatory texts governing it and the distribution of competences among several administrative bodies. Furthermore, the differences between the technical studies regime under the general environmental law and its counterpart in the hydrocarbons sector reveal a legislative intent to take into account the specificity of each sector, although this has in some cases produced overlap and inconsistency.

Regarding the environmental impact assessment under Law No. 03-10, it is a preliminary preventive procedure of a dual technical and administrative nature, to which every development project directly or indirectly affecting the environment is subject. It is carried out by accredited study firms at the project proponent's expense, and is approved

by the Minister in charge of the environment for the impact study and by the territorially competent environmental services for the impact summary.

Regarding impact studies and memoranda on the environment in the hydrocarbons sector, the legislator created a special system distinguishing between the impact study assigned to major installations and structures (Table a) and the impact memorandum assigned to smaller and less hazardous installations (Table b), with approval assigned to the hydrocarbons regulatory authority and the Wali, respectively.

Regarding the environmental hazard study under Law No. 03-10, it is a procedure aimed at identifying, analyzing, and establishing prevention measures, concerning classified installations of the first and second categories, and is approved by a joint inter-ministerial committee or a wilaya committee depending on the category of the installation.

Regarding hazard studies and memoranda and risk studies in the hydrocarbons sector, the legislator established a tripartite classification comprising the hazard study for major installations, the hazard memorandum for less hazardous installations, and the risk study related to exploration activities, with specific approval procedures for each type.

Results:

1. The study revealed the existence of two parallel legal regimes for environmental technical studies: a general regime under Law No. 03-10 and its implementing regulations, and a special regime for the hydrocarbons sector under Executive Decree No. 21-319.
2. The legislator adopted the criterion of installation size and activity hazardousness in the hydrocarbons sector to distinguish between studies (for major installations) and memoranda (for smaller installations), a distinction without a precise counterpart in the general regime.
3. The hydrocarbons regime is characterized by assigning competence to the hydrocarbons regulatory authority for approving studies, reflecting the legislator's intent for sector-specific oversight.
4. The legislator involved multiple consultative bodies in the approval process (consultative committee, hydrocarbons committee), providing broader oversight compared to the general regime.
5. The hydrocarbons regime is distinguished by requiring operators to update hazard studies and memoranda at least every five years, a condition not found in the general regime for classified installations.
6. The legislator created a unique type of study specifically for exploration activities in the hydrocarbons sector, taking into account the exploratory nature of these activities.
7. Despite providing for public inquiry in both regimes, citizen participation remains limited and formal, being confined to making observations on an open register without holding public meetings.

8. The Algerian legislator did not provide a clear and precise definition of either the impact study or the hazard study in the legal texts, and merely specified their objectives and content.

Recommendations:

1. The necessity of issuing a unified and comprehensive legal text governing all types of preliminary environmental technical studies, clearly defining the relationship between the general regime and special sectoral regimes, to avoid fragmentation and complexity.
2. The inclusion of clear and precise legal definitions for the environmental impact assessment, the environmental hazard study, and other technical studies within the legal texts.
3. The development of public inquiry mechanisms through mandating public meetings and hearings with concerned citizens, and making study documents available through digital means.
4. The necessity of specifying the qualifications and expertise required of the investigating commissioner responsible for the public inquiry, particularly in the field of environment and industrial risks.
5. The generalization of mandatory periodic updating of impact and hazard studies for all classified installations, following the model established for the hydrocarbons sector.
6. The strengthening of post-approval monitoring and oversight mechanisms, and the provision of deterrent penalties in the event of non-compliance with the measures and recommendations contained therein.
7. The intensification of training and capacity-building efforts in the field of environmental technical studies to enhance the competence of national study firms and bodies responsible for examination and approval.
8. The establishment of a unified national digital platform for filing and tracking environmental technical study files, ensuring transparency, expediting procedures, and facilitating oversight.

Bibliography:

¹ - Ousserir Mounir, Ben Hadj Djilali, Meghraoui Fatiha, "Economic Feasibility Study of Investment Projects," *Revue des Économies Nord-Africaines*, University of Hassiba Ben Bouali, Chlef, Algeria, No. 7, 2009, p. 330.

² - Zbir Mohamed, "Environmental Feasibility Study of Investment Projects and Its Role in Achieving Environmental Security and Sustainable Local Development," *Journal of Economy and Environment*, University of Ibn Badis, Mostaganem, Algeria, Vol. 02, No. 01, 2019, p. 49.

³ - Berkan Abdelghani, *Investment Policy and Environmental Protection in Algeria*, Master's thesis, Faculty of Law, University of Mouloud Mammeri, Tizi Ouzou, Algeria, 20 May 2010, pp. 89-90.

⁴ - Sonia Bizat, *op. cit.*, pp. 100-101.

⁵ - Ancel Kamal Eddine, *The Precautionary Principle in Investment Execution and the Position of the Algerian Legislator*, Master's thesis, Faculty of Law, University of Jijel, 2005-2006, pp. 87-88.

- ⁶ - Ben Mouhoub Fawzi, *The Environmental Impact Assessment Procedure as a Mechanism for Environmental Protection*, Master's thesis, Faculty of Law and Political Sciences, University of Abderrahmane Mira, Béjaïa, Algeria, 24 April 2012, p. 13.
- ⁷ - Kadoudou Djamil, "The Effectiveness of Administrative Licensing Mechanisms in the Field of Planning and Urban Development and Environmental Impact Studies in Achieving the Balance between Sustainable Development and Environmental Preservation," *Journal of Law and Political Sciences*, Institute of Law and Political Sciences, University Center Salahi Ahmed, Naâma, Algeria, No. 4, June 2016, p. 92.
- ⁸ - Saber Rachedi, "Environmental Impact Assessment: Research into the Concept and Legal Basis," *Revue Ma'arif*, University of Akli Mohand Oulhadj, Bouira, Algeria, Vol. 16, No. 1, June 2021, p. 106.
- ⁹ - Mamouni Fatima Zahra, "The Effectiveness of Environmental Assessment in Rationalizing the Licensing System and Environmental Protection," *Journal of Property and Environmental Law*, Property and Environmental Law Laboratory, University of Mostaganem, Algeria, No. 01, 2013, p. 125.
- ¹⁰ - Ben Mouhoub Fawzi, *op. cit.*, p. 19.
- ¹¹ - Saber Rachedi, *op. cit.*, pp. 108-109.
- ¹² - Ouannas Yahia, *Legal Mechanisms for Environmental Protection in Algeria*, Doctoral thesis, University of Abou Bakr Belkaïd, Tlemcen, Algeria, July 2007, p. 178.
- ¹³ - *Declaration of the United Nations Conference on the Human Environment (1972)*, Principle 14: "Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment." Principle 15: "Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. In this respect, projects which are designed for colonialist and racist domination must be abandoned."
- ¹⁴ - Article 206 of the United Nations Convention on the Law of the Sea of 1982 provides: "When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205."
- ¹⁵ - Article 14/1/a of the Convention on Biological Diversity signed in June 1992 provides: "Each Contracting Party, as far as possible and as appropriate, shall: Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures."
- ¹⁶ - Principle 17 of the Rio Declaration on Environment and Development of 1992 provides: "Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."
- ¹⁷ - Convention on Environmental Impact Assessment in a Transboundary Context, 25/02/1991.
- ¹⁸ - Sonia Bizat, *Mechanisms for Applying the Precautionary Principle in International Environmental Law*, Doctoral thesis, Faculty of Law and Political Sciences, University of Mohamed Lamine Debaghine, Sétif 2, Algeria, 2016-2017, pp. 101-102.

¹⁹ - Law No. 83-03 of 5 February 1983, on Environmental Protection, Official Gazette, No. 06, issued on 8 February 1983.

²⁰ - Decree No. 87-91 of 21 April 1987, on the Urban Development Impact Study, Official Gazette, No. 17, issued on 22 April 1987.

²¹ - Executive Decree No. 90-78 of 27 February 1990, on Environmental Impact Studies, Official Gazette, No. 10, issued on 7 March 1990.

²² - Law No. 03-10 of 19 July 2003, on Environmental Protection within the Framework of Sustainable Development, Official Gazette, No. 43, issued on 20 July 2003.

²³ - Executive Decree No. 06-198 of 31 May 2006, establishing the Regulations Applicable to Classified Installations for Environmental Protection, Official Gazette, No. 37, issued on 4 June 2006.

²⁴ - Executive Decree No. 07-144 of 19 May 2007, specifying the List of Classified Installations for Environmental Protection, Official Gazette, No. 34, issued on 20 May 2007.

²⁵ - Executive Decree No. 07-145 of 19 May 2007, specifying the Scope of Application, Content, and Modalities for Approval of the Impact Study and Summary on the Environment, Official Gazette, No. 34, issued on 20 May 2007.

²⁶ - Executive Decree No. 19-241 of 8 September 2019, amending and supplementing Decree No. 07-145 of 19 May 2007, Official Gazette, No. 54, issued on 8 September 2019.

²⁷ - Ben Mouhoub Fawzi, op. cit., p. 57.

²⁸ - Berkan Abdelghani, op. cit., p. 96.

²⁹ - The text of Annex I of Executive Decree No. 19-241, amending and supplementing Executive Decree No. 07-145, includes the list of projects subject to impact assessment, which are:

1 – Tourist development and construction projects inside and outside expansion areas and tourist sites with an area estimated at ten (10) hectares or more,

2- Projects for the preparation and construction of highways,

3 - Projects for the construction and preparation of an airport and aircraft station,

4 - Projects for the construction and preparation of industrial ports, fishing ports, and recreational ports,

5 - Projects for the construction or dredging of dams,

6 - Projects for the preparation of cargo storage areas, warehouses under customs supervision, and distribution centers with an area of twenty thousand (20,000) square meters or more,

7 - Development projects in wetland areas,

8 - Dredging projects for port basins and dumping dredged silt into the sea,

9 - Projects for constructing pipelines for transporting liquid or gaseous fuels,

10 - Projects for the exploration or extraction of oil, natural gas, or minerals from the land or sea,

11 – Railway line construction projects,

12 – Projects for the construction of healthcare institutions and specialised healthcare institutions with a capacity of five hundred (500) beds or more,

13 – Projects for the construction of marinas,

14 – Projects for the construction of wind energy production centers with turbines that reach a height of fifty (50) meters and produce more than twenty (20) megawatts,

15 - Projects for the construction of solar power generation centers that produce more than twenty (20) megawatts,

16 - Projects for the construction of coastal protection works and structures with a length of five hundred (500) meters or more,

17 - Projects for the construction of main mosques with a capacity of more than ten thousand (10,000) worshippers,

18 - Projects for the establishment of university centers and research centers.

³⁰ - Article 19/2, Law No. 03-10, on Environmental Protection within the Framework of Sustainable Development.

³¹ - Samia Qaidi, "Environmental Impact Assessment as a Legal Procedure for Environmental Protection," *Revue Idara*, National School of Administration, Algeria, No. 44, pp. 51-52.

³² - Berkan Abdelghani, *op. cit.*, p. 99.

³³ - Law No. 14-05 of 24 February 2014, containing the Mining Law, *Official Gazette*, No. 18, issued on 30 March 2014.

³⁴ - Executive Decree No. 02-65 of 6 February 2002, specifying the modalities for granting mining titles, *Official Gazette*, No. 11, issued on 13 February 2002.

³⁵ - Ben Mouhoub Fawzi, *op. cit.*, p. 59.

³⁶ - Law No. 25-12 of 3 August 2025, regulating Mining Activities, *Official Gazette*, No. 52, issued on 7 August 2025.

³⁷ - Ouannas Yahia, *op. cit.*, p. 179.

³⁸ - *Environmental study firms are established under Executive Decree No. 23-324 of 6 September 2023, specifying the conditions and modalities for the practice of environmental study firms. Every applicant for accreditation of a study firm wishing to specialize in the field of impact studies, hazard studies, and environmental auditing must demonstrate that they have received training at the National Institute for Environmental Training. See also the Order of 27 February 2024, containing the list of activities of study firms operating in the field of the environment.*

³⁹ - Article 22, Law No. 03-10, on Environmental Protection within the Framework of Sustainable Development.

⁴⁰ - Article 16, Law No. 03-10.

⁴¹ - Article 6, Executive Decree No. 07-145.

⁴² - Article 6, Executive Decree No. 18-255, amending and supplementing Executive Decree No. 07-145.

⁴³ - Article 6, Executive Decree No. 07-145.

⁴⁴ - Article 6, Executive Decree No. 18-255.

⁴⁵ - Article 6, Executive Decree No. 07-145.

⁴⁶ - Article 6, Executive Decree No. 07-145.

⁴⁷ - Article 6, Executive Decree No. 18-255.

⁴⁸ - Article 7, Executive Decree No. 18-255.

⁴⁹ - Article 8, Executive Decree No. 18-255.

⁵⁰ - Article 9, Executive Decree No. 18-255.

⁵¹ - Article 10, Executive Decree No. 18-255.

⁵² - Samia Qaidi, *op. cit.*, p. 58.

⁵³ - Article 11, Executive Decree No. 07-145.

⁵⁴ - Article 12, Executive Decree No. 07-145.

⁵⁵ - Article 13, Executive Decree No. 07-145.

⁵⁶ - Article 14, Executive Decree No. 07-145.

⁵⁷ - Article 15, Executive Decree No. 18-255.

⁵⁸ - Article 16, Executive Decree No. 07-145.

⁵⁹ - Article 17, Executive Decree No. 18-255.

⁶⁰ - The 2020 Constitutional Amendment confirmed the obligation to provide reasons for administrative decisions, pursuant to Article 26/03. Presidential Decree No. 20-442 of 30 December 2020, relating to the promulgation of the constitutional amendment approved by referendum on 1 November 2020.

⁶¹ - Article 18, Executive Decree No. 07-145.

⁶² - Article 19, Executive Decree No. 07-145.

⁶³ - Article 20, Executive Decree No. 07-145.

⁶⁴ - Article 21, Executive Decree No. 07-145.

⁶⁵ - Article 102, Law No. 03-10.

⁶⁶ - Article 103, Law No. 03-10.

⁶⁷ - Subject to environmental impact assessment and risk study are the following facilities and structures:

1 - Refinery facilities, which include the activity of refining petroleum and condensates.

2 - Hydrocarbon extraction and processing facilities engage in extraction, separation, fractionation, compression, aggregation, distribution, and on-site storage of hydrocarbons, as well as their disposal means, including management and support activities related to them, located within the same operational area.

3 - Structures for transporting hydrocarbons via pipelines and engaging in the following activities:

- Fuel transport pipeline, including the facilities integrated within it.

- The pressure or pumping station is interconnected with two or several fuel transport pipelines.

- The station: facilities for the departure or arrival of one or several pipelines, including fuel storage facilities.

- Loading or unloading fuels at oil ports and offshore using buoys

Except for collection and distribution networks, drainage channels, petroleum product networks, and gas networks that supply the national market exclusively.

4 - Pipelines for transporting petroleum products and the activity of transporting petroleum products through pipelines, including pumping stations integrated into the pipeline and receiving and dispatching stations.

5 - Fuel storage facilities, including loading or unloading facilities associated with this storage, and engage in the storage of: gasoline, naphtha, diesel, kerosene (including aviation fuel), fuel oils, and marine fuel. When the total quantity potentially present in the facility is greater than or equal to 10,000 tonnes. Except for gas stations.

6 - Port facilities for loading or unloading oil tankers and engage in the loading or unloading of petroleum products and converted products.

7 - Facilities that ensure fuel conversion operations and engage in the following activities:

- Liquefaction of natural gas, including storage facilities for liquefied natural gas associated with liquefaction facilities.

- Separation of liquefied petroleum gas, including storage facilities for liquefied petroleum gas associated with separation facilities.

- Petrochemicals and gas chemistry that use fuels as a primary raw material.

8 - Facility for filling liquefied flammable gases and engages in the activity of filling liquefied flammable gas: the quantity potentially present in the facility is greater than or equal to 200 tonnes.

9 – Facility for storing liquefied flammable gases, including associated loading or unloading facilities, and engages in the activity of storing liquefied flammable gas: the quantity potentially present in the facility is greater than or equal to 200 tonnes.

10 – Units for the manufacturing, storage, or distribution of asphalt, and engage in the activity of manufacturing, storing, or distributing asphalt: the quantity potentially present in the facility is greater than or equal to 500 tonnes.

⁶⁸ - The following facilities and structures are subject to the environmental impact memorandum and the hazard memorandum:

1 - Facility for filling liquefied flammable gases, engaged in the activity of filling or distributing liquefied flammable gas, with a potential quantity present in the facility greater than 6 tonnes but less than 200 tonnes.

2 – Facility for storing liquefied flammable gases, including associated loading or unloading facilities, and engages in the activity of storing liquefied flammable gas, with a potential quantity present in the facility being more than 6 tonnes but less than 200 tonnes.

3 – Units for the manufacturing, storage, or distribution of asphalt, with a potential quantity in the facility being less than 500 tonnes.

4 – Facility for manufacturing, storing, or distributing lubricants and engages in the activity of manufacturing, storing, or distributing lubricants: the stored quantity is greater than or equal to 10 tonnes.

5 – Used oil recycling facility and engages in the activity of used oil recycling.

6 – Fuel storage facilities, including loading or unloading facilities associated with this storage, and engage in the storage of gasoline, naphtha, diesel, kerosene (including aviation fuel), fuel oils, and marine fuels. When the total quantity potentially present in the facility is greater than or equal to 50 tonnes but less than 10,000 tonnes.

7 – Gas stations, including facilities whether open to the public or not, where types of fuel, including liquefied petroleum gas and compressed natural gas, are transferred from fixed tanks to vehicle fuel tanks.

⁶⁹ - Article 03 of Executive Decree No. 21-319 dated August 14, 2021, concerning the licensing system for the operation of facilities and structures related to hydrocarbon activities as well as the procedures for approving risk studies related to research activities and their contents, Official Gazette, No. 64, issued on August 22, 2021.

⁷⁰ - Article 37 of Executive Decree No. 21-319.

⁷¹ - Annex II of Executive Decree No. 21-319.

⁷² - Annex II of Executive Decree No. 21-319.

⁷³ - Article 39 of Executive Decree No. 21-319.

⁷⁴ - Article 40 of Executive Decree No. 21-319.

⁷⁵ - Article 41 of Executive Decree No. 21-319.

⁷⁶ - Article 42 of Executive Decree No. 21-319.

⁷⁷ - Article 43 of Executive Decree No. 21-319.

⁷⁸ - Article 44 of Executive Decree No. 21-319.

⁷⁹ - Article 45 of Executive Decree No. 21-319.

⁸⁰ - Article 46 of Executive Decree No. 21-319.

⁸¹ - Article 47 of Executive Decree No. 21-319.

⁸² - Article 48 of Executive Decree No. 21-319.

⁸³ - Article 49 of Executive Decree No. 21-319.

⁸⁴ - Article 50 of Executive Decree No. 21-319.

⁸⁵ - Article 51 of Executive Decree No. 21-319.

⁸⁶ - Article 52 of Executive Decree No. 21-319.

⁸⁷ - Article 53 of Executive Decree No. 21-319.

⁸⁸ - Article 83 of Executive Decree No. 21-319.

⁸⁹ - Article 84 of Executive Decree No. 21-319.

⁹⁰ - Article 85 of Executive Decree No. 21-319.

⁹¹ - Article 86 of Executive Decree No. 21-319.

⁹² - Article 87 of Executive Decree No. 21-319.

⁹³ - Article 88 of Executive Decree No. 21-319.

⁹⁴ - Article 89 of Executive Decree No. 21-319.

⁹⁵ - Article 90 of Executive Decree No. 21-319.

⁹⁶ - Article 91 of Executive Decree No. 21-319.

⁹⁷ - Law No. 03-10 on Environmental Protection within the Framework of Sustainable Development.

⁹⁸ - Article 21 of Law No. 03-10.

⁹⁹ Article 60 of Law No. 04-20 of 25 December 2004.

¹⁰⁰ - Executive Decree No. 25-132 of 17 April 2025, specifying the modalities for preparation, amendment, updating, and implementation of general plans for disaster risk prevention.

¹⁰¹ - Law No. 24-04 of 26 February 2024.

¹⁰² - Law No. 19-13 of 11 December 2019.

¹⁰³ - Article 2 of Executive Decree No. 06-198, and Article 2 of Executive Decree No. 21-319.

¹⁰⁴ - Article 12 of Executive Decree No. 06-198.

¹⁰⁵ - Ben Khaled Essaadi, Law of Classified Installations for Environmental Protection in Algeria, Master's thesis, University of Abderrahmane Mira, Béjaïa, Algeria, 21/05/2012, p 12.

¹⁰⁶ - Maaleb Meriem, Criminal Liability of Classified Installations for Environmental Pollution under Algerian Law, Master's thesis, University of Mohamed El-Amine Debaghine, Sétif, Algeria, 2015/2016, p. 38.

¹⁰⁷ - Law No. 22-18 of 24 July 2022, on the Promotion of Investment.

¹⁰⁸ - The classified institution refers to the entirety of the residential area, which includes one or several classified establishments under the responsibility of a natural or legal person subject to public or private law, who owns the institution and the classified establishments it comprises, or exploits it, or has entrusted its exploitation to another person.

The term "classified facility" refers to any technical unit in which an activity or substance listed in the classified facilities for environmental protection is carried out, as specified in Executive Decree No. 07-144, which defines the list of classified facilities for environmental protection.

See Article 02 of Executive Decree No. 22-167 dated April 19, 2022, amending and supplementing Executive Decree No. 06-198, which regulates the application of the law to classified establishments for environmental protection, Official Gazette, No. 29, issued on April 24, 2022.

¹⁰⁹ - Article 05 of Executive Decree No. 06-198.

¹¹⁰ - Articles 03 and 04 of the Joint Ministerial Order of 14 September 2014, specifying the modalities for examination and approval of hazard studies, Official Gazette, No. 03, issued on 27 January 2015.

¹¹¹ - Article 13 of Executive Decree No. 06-198.

¹¹² - Article 14 of Executive Decree No. 06-198.

¹¹³ - Article 14 of Executive Decree No. 24-196 of 11 June 2024, amending and supplementing Executive Decree No. 06-198, establishing the regulations applicable to classified installations for environmental protection, Official Gazette, No. 42, issued on 19 June 2024.

¹¹⁴ - Articles 03 and 04 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹¹⁵ - Article 05 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹¹⁶ - Article 06 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹¹⁷ - Article 09 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹¹⁸ - Article 10 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹¹⁹ - Article 11 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²⁰ - Article 12 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²¹ - Article 13 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²² - Article 14 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²³ - Article 15 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²⁴ - Article 16 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²⁵ - Article 17 of the Joint Ministerial Order specifying the modalities for examination and approval of hazard studies.

¹²⁶ - The following installations and structures are subject to the environmental impact study and the hazard study:

1 – Refining installations, comprising the activity of refining petroleum and condensates.

2 – Hydrocarbons extraction and processing installations, carrying out the activities of extraction, separation, fractionation, compression, gathering, distribution, and on-site storage, as well as hydrocarbons evacuation facilities, including the management and support activities associated therewith, located within the same exploitation area.

3 – Hydrocarbons pipeline transport structures, carrying out the following activities:

- Hydrocarbon transport pipeline, including the installations integrated therein;
- Compression or pumping station interconnected with two or more hydrocarbon transport pipelines;

- *Terminal: departure or arrival installations of one or more pipelines, including hydrocarbon storage installations;*

- *Loading or unloading of hydrocarbons at oil ports and offshore using buoys;*

Excluding gathering and distribution networks, drainage channels, petroleum product networks, and gas networks supplying the domestic market exclusively.

4 – Petroleum product transport pipelines, carrying out the activity of transporting petroleum products by pipeline, including pumping stations integrated into the pipeline and departure and arrival terminals.

5 – Fuel storage installations, including the loading or unloading installations associated with such storage, carrying out the storage activity for: gasoline, naphtha, diesel, kerosene (including aviation fuel), fuel oils, and marine fuel. Where the total quantity likely to be present at the installation is greater than or equal to 10,000 tonnes. Excluding petrol stations.

6 – Port installations for loading or unloading oil tankers, carrying out the activity of loading or unloading petroleum products and converted products.

7 – Installations ensuring hydrocarbons conversion operations, carrying out the following activities:

- *Liquefaction of natural gas, including liquefied natural gas storage installations associated with the liquefaction installations;*
- *Separation of liquefied petroleum gas, including liquefied petroleum gas storage installations associated with the separation installations;*
- *Petrochemistry and gas chemistry using hydrocarbons as a primary raw material.*

8 – Liquefied flammable gas filling installation, carrying out the activity of filling liquefied flammable gas: the quantity likely to be present at the installation is greater than or equal to 200 tonnes.

9 – Liquefied flammable gas storage installation, including the associated loading or unloading installations, carrying out the activity of storing liquefied flammable gas: the quantity likely to be present at the installation is greater than or equal to 200 tonnes.

10 – Asphalt manufacturing, storage, or distribution units, carrying out the activity of manufacturing, storing, or distributing asphalt: the quantity likely to be present at the installation is greater than or equal to 500 tonnes.

¹²⁷ - *The following installations and structures are subject to the environmental impact memorandum and the hazard memorandum:*

1 – Liquefied flammable gas filling installation, carrying out the activity of filling or distributing liquefied flammable gas, where the quantity likely to be present at the installation is greater than 6 tonnes but less than 200 tonnes.

2 – Liquefied flammable gas storage installation, including the associated loading or unloading installations, carrying out the activity of storing liquefied flammable gas, where the quantity likely to be present at the installation is greater than 6 tonnes but less than 200 tonnes.

3 – Asphalt manufacturing, storage, or distribution units, where the quantity likely to be present at the installation is less than 500 tonnes.

4 – Lubricant manufacturing, storage, or distribution installation, carrying out the activity of manufacturing, storing, or distributing lubricants: the stored quantity is greater than or equal to 10 tonnes.

5 – Used oil regeneration installation, carrying out the activity of regenerating used oils.

6 – Fuel storage installations, including the associated loading or unloading installations, carrying out the storage activity for gasoline, naphtha, diesel, kerosene (including aviation fuel), fuel oils, and marine fuel. Where the total quantity likely to be present at the installation is greater than or equal to 50 tonnes but less than 10,000 tonnes.

7 – Petrol stations, comprising installations whether open to the public or not, where fuel types including liquefied petroleum gas fuel and compressed natural gas are transferred from fixed tanks to vehicle fuel tanks.

¹²⁸ - Article 03 of Executive Decree No. 21-319.

¹²⁹ - Article 54 of Executive Decree No. 21-319.

¹³⁰ - Article 55 of Executive Decree No. 21-319.

¹³¹ - Article 56 of Executive Decree No. 21-319.

¹³² - Annex III of Executive Decree No. 21-319.

¹³³ - Annex III of Executive Decree No. 21-319.

¹³⁴ - Article 57 of Executive Decree No. 21-319.

¹³⁵ - Article 58, paragraphs 01 and 02, of Executive Decree No. 21-319.

¹³⁶ - Article 58, paragraphs 03 and 04, of Executive Decree No. 21-319.

¹³⁷ - Article 59 of Executive Decree No. 21-319.

¹³⁸ - Article 28/01 of Executive Decree No. 21-319.

¹³⁹ - Article 60 of Executive Decree No. 21-319.

¹⁴⁰ - Article 61 of Executive Decree No. 21-319.

¹⁴¹ - Article 61 of Executive Decree No. 21-319.

¹⁴² - Article 62 of Executive Decree No. 21-319.

¹⁴³ - Article 64 of Executive Decree No. 21-319.

¹⁴⁴ - Article 65 of Executive Decree No. 21-319.

¹⁴⁵ - Article 66 of Executive Decree No. 21-319.

¹⁴⁶ - Article 67 of Executive Decree No. 21-319.

¹⁴⁷ - Article 68 of Executive Decree No. 21-319.

¹⁴⁸ - Article 69 of Executive Decree No. 21-319.

¹⁴⁹ - Article 70 of Executive Decree No. 21-319.

¹⁵⁰ - Article 71 of Executive Decree No. 21-319.

¹⁵¹ - Article 72 of Executive Decree No. 21-319.

¹⁵² - Article 73/1 of Executive Decree No. 21-319.

¹⁵³ - Annex IV of Executive Decree No. 21-319.

¹⁵⁴ - Article 73/3 of Executive Decree No. 21-319.

¹⁵⁵ - Article 74 of Executive Decree No. 21-319.

¹⁵⁶ - Article 75 of Executive Decree No. 21-319.

¹⁵⁷ - Article 76 of Executive Decree No. 21-319.

¹⁵⁸ - Article 77 of Executive Decree No. 21-319.

¹⁵⁹ - Article 78 of Executive Decree No. 21-319.

¹⁶⁰ - Article 79 of Executive Decree No. 21-319.

¹⁶¹ - Article 80 of Executive Decree No. 21-319.

¹⁶² - Article 81 of Executive Decree No. 21-319.

¹⁶³ - Article 82 of Executive Decree No. 21-319.