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Environmental Protection Law and Oil Contracts: Evaluating Iranian Approach Comparing to the International Oil Contracts

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Abstract

Most oil reserves are located in developing countries, which often lack the regulations necessary to comply with international standards. Developing countries have developed the necessary laws and regulations due to new technologies like framing, which are reflected in drilling and development contracts. Study and analysis of the environmental conditions in oil contracts have been conducted in the present article, including the new generation of oil contracts for the Islamic Republic of Iran. This study aims to review the solutions provided in international agreements, analyze the current status of the laws and regulations of the Islamic Republic of Iran, and provide the necessary solutions according to the current situation of oil operations in Iran. In addition to its ethical value, the conclusions of this paper can be useful to policymakers and lawyers involved in oil and gas contracts. In the first part of paper, the environmental effects of oil and gas activities are mentioned; In the second part, the method of forecasting environmental considerations in international oil contracts are examined, and then in the third part, the environmental criteria of Iranian oil contracts are examined. Finally, according to the problems in the adopted methods, a solution is presented.

Keywords: Climate Change, International Standards, Environmental Law, Oil and gas law, Oil contract law.

INTRODUCTION

The visible economic development in developed countries is due to the activities after the Industrial Revolution in the eighteenth century. Seeing the growing trend of developed countries and their position in the international arena, developing countries sought to improve their position and improve the economic situation. The countries with oil and gas resources, taking advantage of this divine gift, sought to seize the golden opportunity ahead. Despite earning a lot of income and beneficial effects such as employment and attracting foreign capital to improve infrastructure, the environmental effects of these measures are undeniable. In other words, what can be said about the development of developed countries and the adherence of other countries to this method of economic development are the environmental crises that have emerged beyond this rapid development and have raised many concerns.

Due to the international nature of environmental damage caused in maritime settings, which may extend beyond the jurisdiction of a single state, exploration, and production of oil and gas became a major concern under international environmental law(Alencar Xavier & Silva Lanzillo, 2015).

One of these crises is climate change. The effects of the climate change crisis are intensifying. For example, 2020 is the warmest year in recent years, with a temperature of 1.2 degrees Celsius relative to the pre-industrial temperature. This increase in temperature in areas such as the Middle East and North Africa can have detrimental effects. In addition to natural disasters caused by climate change, such as mortality, disease, rising sea and river levels, floods, monsoon storms, rainfall fluctuations, reduced access to freshwater, and migration, the crisis Abnormalities have also emerged, such as threats to food and energy security and business risks. A study of the effective human activities in these crises shows that industries have the greatest impact on environmental pollution(Nadal et al., 2015). Among the human activities affecting the production of environmental pollutants is the oil and gas industry. Iran is known as one of the oil and gas producing countries globally that has not been spared from the adverse environmental effects of this industry.

The Torrey Canyon spill, Amoco Cadiz spill, and Exxon Valdez spill, all incidentally related to crude oil spills from supertankers in the 1980s, led to the international community seeking answers to environmental issues that called for immediate regulation. According to Guido Soares, "maritime and ocean spaces are the environments that have suffered the most catastrophic damage in recent years, due to the emergence of supertankers with their huge capacity for environmental destruction, as well as the coastal activities of riparian countries(Soares, 2001)."

Oil exploration was a golden opportunity for developing countries to generate prosperity for their people with huge revenues from oil and gas sales. Despite the positive impact of oil activities in countries with oil resources, its negative effects on the environment cannot be ignored. Oil operations have always put

many parts of the environment at risk. Implementing oil activities has caused inevitable harmful effects at sea or on land. The effects of oil operations have increased greenhouse gas emissions, air pollution, infiltration of soil, sea, and groundwater, and respiratory diseases(Amani, 2010). The harmful effects of oil activities on the environment resulted from the mere attention of host countries and international oil companies to economic benefits. This can be illustrated briefly by Concession Contracts to extract oil in the early years of oil exploration, which do not essentially include environmental commitments(Dabiri & Poorhashemi, 2009).

After a while, the environment suffered a lot due to the detrimental effects of the oil companies' operations and their destructive activities(Berkhout & Smith, 2003). Hence, it was time for Oil market players to pay attention to the environment and their duty to preserve and maintain it in their industrial activities. As a result, the desire to protect the environment as a concern of countries Despite international environmental treaties and the adhesion of oil-owning countries to them, the ideal results in terms of environmental protection have not been achieved, and new problems arose. Environmental rules and conditions that were no longer enforced in oil contracts always required high costs for oil companies. Due to Increased costs, oil companies were reluctant to continue their activities in the developing countries with oil resources. Having an oil-based economy and the absence of oil companies lead to new difficulties for these countries. The crucial challenge was the imbalance between oil production and compliance with environmental regulations stems from a conflict of interest and a desire for maximum profit(DiMentom, 2021; Fuentes, 2002).

Moreover, domestic laws had serious weaknesses in covering all environmental principles. This drawback in legislation was mainly in developing countries. Despite these problems, some countries, such as Norway, one of the countries with oil resources, have taken positive steps to protect the environment by enacting comprehensive laws and adopting appropriate policies. Norway illustrates this point clearly that environmental protection is one of the requirements of oil activities, and it is not acceptable to overlook them under the pretext of economic interests(ADNOC, 2020).

Regarding the Torrey Canyon case, Celso Mello states that "numerous legal problems emerged: the owner was American; the charterer was English; the ship flew the Liberian flag; the crew was Italian; etc. Who was liable for the damage caused?" However, one can go way beyond the international legal questions that arose from this case, namely the following: which law should be applied to determine liability? Is environmental protection a national or international obligation in this case? In which of these would the goal of assigning liability for the damage to be achieved? Which agency with jurisdictional powers would have international authority to impose reparatory demands? Which entity would be liable for the environmental damage beyond national jurisdiction(MELLO, 2004)?

In an article, Sina Dobaradaran and Ferdis Mohammadzadeh listed the effects of Iran's oil industry in Assaluyeh as a city in Bushehr province, including air and water pollution, the impact on aquatic organisms, and disease noted respiratory effects on the health of the infant and fetus (Dobaradaran & Mohammadzadeh, 2014). Environmental crises, not because of activities ten years ago; Rather, it is due to the incorrect mechanism of the oil contracts law system that existed from the beginning of oil and gas exploration and extraction in Iran. The traditional concession agreements concluded between the Iranian government, and foreign companies were largely environmental-free. Although the environmental conditions were gradually considered as the effects of oil and gas abuses on the environment began to appear, they had no effect in practice. Environmental commitments have largely imposed costs on foreign oil companies. As a result, they have been reluctant to include and comply with environmental conditions in international oil and gas contracts. Therefore, due to the power of oil companies, they had more choice, and if one of the countries with oil and gas resources is strict, there were other options for them. Further explanation is that many countries did not take strict measures in the field of environment because they sought to attract foreign capital and improve the economic situation, and implemented the policy of open doors and the imposition of any restrictions and obstacles on the work of oil companies. International refused. Therefore, environmental conditions could not have a place in oil contracts. If included in the said contracts, the parties to the contract did not bother to implement it, only to address the concerns of pro-environmental groups and were formal.

Since having a healthy environment is one of the fundamental human rights, reviewing the energy policy in oil and gas producing countries is necessary. Contract law can play a significant role in protecting the environment and human rights. To achieve this goal, the authors of this study seek to analyze the environmental conditions in international oil contracts and, while mentioning them, examine the strengths and weaknesses of environmental conditions in Iranian oil contracts. According to what has been said before, due to the lack of proper mechanism, environmental considerations in oil activities in Iran have received less attention. This has led to environmental pollution in oil-rich areas such as the Bushehr and Khuzestan provinces. It is predicted in the future not only these areas; Rather, it covers all the provinces of Iran because climate change can lead to the arrival of adverse effects in many areas, even areas that did not affect pollution.

On this basis, this paper examines the environmental considerations in oil contracts in three main sections; In the first part, the environmental effects of oil and gas activities are mentioned; In the second part, the method of forecasting environmental considerations in international oil contracts are examined, and then in the third part, the environmental criteria of Iranian oil contracts are examined. Finally, according to the problems in the adopted methods, a solution is presented.

DISCUSSION

1. Environmental Protection and Oil Contracts

Although the discovery of oil has positively influenced human life and caused a lot of income to enter the countries with oil resources, its negative effects on the environment cannot be ignored. Drilling wells and extracting oil have had devastating traces in the environment. Examples include pollution of land, sea, and groundwater. Oil drilling requires a lot of equipment, making a big hole in the ground. The infiltration of oil into the water and soil around the oil pipelines causes people living near the wells to contract diseases. Transporting oil by sea and oceans may risk that crude oil will leak out of its reservoir and pollute the environment. Oil spills result from oil infiltration into the waters of the seas or oceans. After a while, seabirds and mammals are trapped in the oil and die. "In 1989, the Exxon Valdez oil spill in Prince William of Alaska caused the worst oil spill in North America several years ago. This caused 38,800 tons of reservoir oil to expand to 1,200 miles. About 1,000 otters and 300,000 to 400,000 seabirds were killed off the coast"(Sabour, 2015). The problems do not end there. The transfer of oil to industrial sectors of society and its consumption in cars or factories causes air pollution, acid rain, and climate change.

Early oil contracts, such as Concession Contracts in the first half of the twentieth century, did not mention the environment. For example, there are no conditions regarding environmental issues in the Darcy Concession Contracts. "Other similar contracts do not require environmental considerations(Gao & Kao, 1998)." "The 1933 Concession Contracts, which replaced the Darcy contract, also does not contain an environmental clause"(Shiravi, 2016). The length of the Concession Contracts and the size of the contract area made it impossible for the host states to monitor the implementation of the international oil companies' obligations related to environmental protection. Kuwaiti Concession Contract is a good illustration to clarify this point. "In the Kuwaiti Concession Contracts in 1934, all the islands and coastal waters belonging to Kuwait was part of the contract area. In the Iran Concession Contracts, which was concluded in 1933, the contract area was about one hundred thousand square miles for sixty years" (Amani, 2010). In Production Sharing Contracts, by accepting the sovereignty of governments over natural resources, including oil resources, it became possible for the host government to assess the obligations of the other party to the contract to protect the environment. Environmental obligations were also considered in the Service Contract. But the features of these contracts were the mere focus on economic matters rather than environmental duties.

With the wave of nationalization of the oil industry, oil countries tended to enter into partnership agreements. The first generation of these contracts was concluded in Indonesia from 1960 to 1975. (Cattan, 1966) The "Joint-Venture" investment participation agreement and the "Production Sharing Agreement"

are among the partnership agreements. The common denominator of both types of partnership agreements is governments' commitment to environmental protection and oversight of oil operations, something not found in traditional concession agreements. This feature stems from the principle of state sovereignty over natural resources, which makes the host government the owner of oil and gas and obliges international oil companies to adhere to the principles of environmental protection. This principle imposes an obligation on the host government. The host government undertakes to fulfill its environmental commitments in the exploration, extraction, and transfer of crude oil and gas in its contracts with international companies. Include natural and other derivative products in the contract. The fault of the host government in terms of this commitment to oil contracts and the supervision of international oil companies can be considered an international crime. Article 19 of the draft law adopted by the International Law Commission states that "any state which has violated an obligation which the international community considers to be essential to its fundamental interests has committed an international crime." According to this article, a major violation of international obligations, such as obligations to prevent widespread air or sea pollution necessary to protect the environment, is considered an international crime.

Service contracts, also known as contract contracts in the Iranian legal system, are the third type of oil contract. The International Oil Company is committed to the project and receives remuneration for its activities. The obligation in this contract is of the type "commitment to the result," and the oil company - the contractor - is committed to implementing the project and the exploration or exploration and extraction of oil. If he does not succeed, he will not receive a reward. Given what has been said before, environmental obligations are also among the obligations of the oil company that it must fulfill. If the environmental requirements are not met and environmental damage is caused, the company must pay compensation. The first common contract form between oil-rich countries and oil companies was Concession Contracts. These contracts did not consider environmental principles. The Darcy Contract and the Concession Contracts in Saudi Arabia did not address the environment. Since the second half of the twentieth century, countries have paid attention to the environment and the need to preserve it. Therefore, environmental principles were gradually considered in the oil contracts of that time. In recent years, modern oil contracts such as Norwegian contracts have paid special attention to the environment regarding energy policy. Environment and climate change are an important part of the Norwegian government's policy towards the oil industry. Therefore, the standards and necessary criteria for environmental protection have always been applied in these industries. The law governing oil activities in Norway is the 1996 Oil Law(Gray et al., 1999). This law gives powers to regulate oil activities. For example, the Norwegian government in Activities Regulation plan and prevent environmental damage during oil operations. Norway, as a pioneer country, introduces a carbon tax. The Norwegian oil industry is committed to paying a carbon tax. Burning oil

by the oil industry emits CO_2 (carbon dioxide), CH_4 (methane), NO_x (nitrogen oxides), and NMVOCs (non-methane volatile organic compounds) to the air. Therefore, the tax rate in this area is higher than in other industries.

Comparing Iranian oil and gas contracts with international ones tells us that despite the existence of laws and regulations in the Iranian legal system that refer to compliance with environmental obligations, oil activities in oil-rich areas of Iran, such as Assaluyeh, are expanding rapidly regardless of environmental standards, which has devastating effects on citizens' health. Plant, animal, air, and water quality. Therefore, it is necessary to include the common environmental requirements in international oil contracts, such as the "Environmental Impact Assessment" (IEA) in oil contracts in Iran. The implementation of this commitment depends on several factors: First, the hosting government must carry out serious pre-contract studies - Iran - before bidding and inviting international oil companies. In cooperation with the Environmental Protection Agency and scientific and academic centers, the National Iranian Oil Company should prepare a comprehensive report on the area's human, animal, and plant ecosystem and predict damages if the obligations under the oil contracts are not met. It enters the oil region. Second, an obligation to provide regular periodic reports (one-month, three-month, six-month, and one-year) by the contractor on implementing environmental commitments to the National Iranian Oil Company must be included in the oil contracts. Third, the National Oil Company must closely monitor the implementation processes of oil and gas projects in Iran and, in the event of a breach of environmental obligations, receive compensation commensurate with what is stated in the contract and require it to restore the status quo to the status quo ante. For example, in the event of pollution from oil and gas transmission, the contractor must compensate. In addition, the National Iranian Oil Company, in cooperation with competent organizations such as the Environmental Protection Organization and scientific, research, and academic centers, should compile and publish a comprehensive report on the environmental status of oil-rich areas so that policymakers can be informed about Provide solutions to stop or reduce the adverse effects of environmental crises. The harmful effects of some oil operations in various parts of the world on the environment have raised concerns. International treaties and domestic laws on environmental protection answered this concern. Thus, a positive step was taken towards protecting the environment, and principles such as the principles of international environmental law, which were accepted by many countries, affected oil contracts. Considering the guarantee of legal sanction in contracts causes the parties to adhere to their obligations to protect the environment. Using environmental terms means adhering to the principles of international environmental law, such as the principle of prevention, the principle of precaution, the Polluter Pays Principle, and Sustainable Development.

2.1 Precaution Principle

The precautionary principle is one of the most important principles of international environmental law. According to this principle, governments must

take many precautionary measures in proportion to their capabilities to protect the environment. The purpose of the principle of environmental precaution is to protect the environment and prevent its degradation and pollution. "In general, the environment, by its nature, is closely related to science and knowledge. Among these, the principle of precaution is more related to science and knowledge than other principles of the environment. From this perspective, this principle is considered a very good incentive for developing scientific research in unknown fields(Ramezani, 2013)."

This principle has been mentioned in various treaties such as the Declaration of November 25th, 1987, Ministerial Declaration of the Second International Conference on the Protection of the North Sea: London, November 25th, 1987, International Conference on the Protection of the North Sea 1987, the Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') September 22nd, 1992, the Maastricht Treaty of European Union, and1992, and Rio Declaration. Following Principle 15 of the Rio Declaration to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Compared to the principle of prevention, it seems that the principle of precaution was considered before the principle of prevention, because the implementation of the principle of prevention depends on the application of many technical and specialized measures and measures, while "using the principle of precautionary action" Even in cases of scientific doubt, it can be helpful, while the principle of prevention requires the existence of scientific tools and is associated with the advancement of science; in other words, governments can prevent the obligations of the principle of prevention based on the lack of technology and knowledge. However, in this case (lack of technology and scientific certainty), they can not ignore the principle of precautionary measures. Even if there is a possibility of major damage, they must take the necessary precautions. This shows the difference between the principles of prevention and precaution (Ramezani, 2013)."

2.2 Prevention Principle

This principle demonstrates that instead of compensating for environmental damage, the appropriate solution is to prevent such damage from occurring. Given that it is difficult to compensate for the environmental damage caused by oil activities, rules on the need to prevent such damage were established in international environmental law. For instance, "The cost of cleaning up oil spills was at least $ 3 billion, much of which was paid for by the US government, but due to the high cost of this cost, many cannot afford it" (Sabour, 2015).

Both experience and the opinion of scientific experts prove that the principle of prevention for the environment, both ecologically and economically, is a golden rule(Habibi, 2005). Article 206 of the United Nations Convention on the Law of

the Sea (1982) stated: " 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".

Environmental damage is distinct from other damages. In general, two characteristics make a difference in environmental damage: First, environmental damage is not easily calendared. Further explanation is that material damage can be easily assessed, such as the destruction of a house or car. Based on existing principles, experts can determine the amount of damage, which is equivalent to a certain amount. However, environmental damage lacks this feature, and it is not easy to determine a certain amount for the polluter. Second, assuming a certain amount is set, it should be noted that this amount can not compensate for environmental damage. For example, cash and cash can not compensate if they are caused by oil operations, air and water pollution, the destruction of animal and plant ecosystems, and respiratory diseases. Therefore, it is necessary to mention the prevention principle as one of the environmental principles. Which states that environmental protection can be achieved if environmental damage is prevented.

"To prevent major transnational environmental damage, international law analysts are planning rules and regulations for the conduct and performance of governments to prevent environmental damage and accidents before they occurred, developed and transformed" (Heyvaert, 2013). To implement the prevention principle, it is necessary to start special and specialized measures such as technical studies of risk assessment before starting the project. In addition, governments must constantly monitor and evaluate existing activities. In this regard, we can refer to Article 206 of the Convention on the Law of the Sea, which stipulates that "whenever there are reasonable reasons for the activities of States under their control and supervision to cause serious pollution of the marine environment or to substantial and harmful changes, It should, as far as possible, evaluate the potential impact of these activities on the environment and report to members on the results of these assessments (Sands & Peel, 2012)".

Similarly, the principle requiring the prevention of environmental damage and otherwise limiting or controlling activities that might cause such damage is closely related to Principle 21/Principle 2 obligation. The arbitral tribunal in Iron Rhine affirmed that 'the duty of prevention is increasingly being stressed in international environmental law today and that 'most international environmental law is shaped by reference to the way activities in one territory may affect the activities in another(Baetens, 2017). As a result, the principle of prevention is not only applicable to autonomous activities and is also applicable to activities undertaken to implement specific treaties between signatory countries. In the Pulp Mills case, the International Court of Justice affirmed this

approach by saying that "the principle of prevention has its origin in the due diligence a State owes its citizens on its territory" (Tully, 2006). It explains that preventing harm and exercising due diligence are interdependent. Due diligence should include adopting appropriate laws and regulations and vigilance in their enforcement and monitoring of the activities of such operators. The ILC took a similar approach in Article 3 of its draft articles on preventing transboundary harm from hazardous activities (2001), which requires states to take all appropriate measures to prevent significant transboundary harm or minimize the risk thereof. In the Commentary to the draft Articles, the duty of due diligence is emphasized. If significant harm cannot be prevented, it is not intended to guarantee its prevention. In such a case, the state of origin must minimize the risk to the maximum extent possible. However, the state of origin cannot guarantee harm will not occur(Lammers, 2002).

2.3. Assessment Principle

This principle can be considered the result of the prevention principle because dangerous activities such as oil activities, which are always dangerous and unpredictable, are among its features, require a careful assessment of environmental impacts. "The correct and accurate conduct of an environmental impact assessment can serve as a standard for determining the degree of attention and accuracy in risk prevention," said Corolla Coria Soria and Robinson(Jeffery, 1992). Monitoring, issuing warnings and announcements, and exchanging information can be considered examples of actions taken to implement this principle. One of the laws that have been passed in this regard is the Canadian Environmental Assessment Act of 1992, in which the legislature guided environmental assessment.

"Directive 85/337/EC as amended by 97/11/EC and 2003/35/EC3, hereafter "EIA Directive") are one of the items of EU green legislation with the most widespread implications for project developers. It requires a systematic assessment of the likely environmental impacts of projects in a wide range of areas. As outlined in the Directive, the EIA process is intended to help ensure that project development and planning decisions take environmental impacts into account by incorporating measures to avoid or reduce and, if possible, offset potential impacts from the planning stage, selecting projects with a lower impact, and rejecting projects whose probable impacts have been deemed unacceptable by the competent national authorities. It is, however, only a tool to improve the transparency and informed decision-making process, not binding law. The EIA Directive creates procedural rather than substantive obligations, and the Member States are not obliged to conduct EIAs. However, they may refuse projects that harm the environment on that basis(Armstrong et al., 2010).

When a project is likely to have a significant impact on the environment (see below), developers are required to provide some information concerning the project and its effects to the competent authorities in the Member State concerned. A planned development needs to be consulted with the public, relevant authorities, and the other Member States to have transboundary effects.

Environmental Impact Assessment (EIA) is the name of the entire process. Depending on how the EIA is incorporated into existing procedures for approving projects in a Member State, it may be separated as a separate procedure to comply with the Directive. However, the Directive does not prevent the Member States from establishing stricter national rules regarding the scope and procedures of environmental assessments for planned developments falling within their jurisdiction.

As part of the EIA, the project must be evaluated for its direct and indirect effects on the following factors: human beings, fauna and flora, soil, water, air, climate, and landscape, material assets, cultural heritage, and the interactions between them(Okowa, 1997).

Environmental impact assessments have become mainstream since the 1972 Stockholm Conference and are used as a tool to integrate environmental concerns into socio-economic development and decision-making processes worldwide. An EIA is a process that produces a written statement that can be used as a decision-making tool, and it has many related functions. It should, first and foremost, inform decision-makers about the environmental consequences of proposed activities, programs, and policies, as well as their alternatives. Next, it should influence decisions(Okowa, 1997). It encourages the participation of potentially affected individuals in the decision-making process. Assessments were first established in the domestic law of the United States under the 1969 National Environmental Policy Act. In the following years, they have been adopted in a very large number of national legal systems. Several international conventions, multilateral development banks, and non-binding regional and global instruments require environmental impact assessments. In the Rio Declaration, Principle 17 states that environmental impact assessments are now required by general international law, particularly for activities that can have transboundary implications, to meet a state's obligation to ensure that activities within its jurisdiction and control respect the environment of other States and areas beyond its control(Glasson et al., 1999). Principle 17 is a general principle, but it does not specify the minimum requirements states must meet. To a certain extent, the details relating to common approaches are reflected in the instruments described in this chapter and in the international cases which have arisen since Principle 17 was adopted: New Zealand's application to the ICJ concerning the resumption by France of underground nuclear testing, the case concerning the Gabcıkovo-Nagymaros project, the dispute between Ireland and the United Kingdom concerning the MOX plant, the Pulp Mills case and the ITLOS advisory opinion on Responsibilities and Obligations in the Area. International law requires that an environmental impact assessment be prepared before a state engages in or permits an activity that may have serious adverse environmental effects(Craik, 2008). Another development described below demonstrates the growing importance of strategic environmental assessments (for instance, the 2003 Protocol on Strategic Environmental Assessment to the Espoo Convention)

and risk assessments associated, in particular, with foods, genetically modified organisms, and hazardous chemicals(Bastmeijer, 2008).

2.4 Polluter Pays Principle

It is necessary to interpret who is a polluter. "Polluters are responsible for the pollution they have caused. Therefore, polluters should bear the cost of measures aimed at preventing and reducing pollution"(Lindhout & Van den Broek, 2014). Article 16 of the Rio Declaration notes: "National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment."

This principle has been introduced since the introduction of civil liability in international treaties on accidents caused by nuclear and oil energy for persons whose activities have led to the destruction of the environment. "In implementing this principle, the UN Security Council held Iraq responsible for the destruction of the environment during the invasion of Kuwait. Therefore, the extent of the damage to the region's environment was assessed by the affected countries and reported to the Security Council's Compensation Committee" (Dabiri & Poorhashemi, 2009).

2.5 Sustainable Development Principle

Sustainable Development means that in addition to meeting the needs of current generations, development should not impair the ability of future generations to meet their own needs. World Commission on Environment and Development (the Brundtland Commission1987), which played an important role in popularizing the concept of sustainable development in the world, in its report called Our Common Future, defined sustainable development as follows: "Humanity can make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs." "The Rio and Stockholm Declarations state that achieving sustainable development requires the protection of the environment and that the development agenda has made the two concepts inseparable(Poorhashemi, 2013)."

Stockholm Declaration on the Human Environment of the United Nations Conference on the Human Environment (1972) was the first step to connect environmental protection and sustainable development. For example, Article 8 of the Declaration considers economic and social development desirable for the environment and necessary for life and work. Article 11 emphasizes: "The Declaration on the Environmental Policy of Governments The environmental

policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment."

Developing countries were able to place the right to development in the third principle of the Rio Declaration. This principle states: "The right to development must be fulfilled to equitably meet developmental and environmental needs of present and future generations." The fourth principle, which stipulated the Rio Declaration, states that: "To achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it." These two principles are the most important principles of the Rio Declaration and must be considered together. Principle 3 is very similar to the definition of sustainable development in the Brundtland Commission. Principle 4 also considers the environment to be an integral part of development. The only difference between the two principles is that the former emphasizes development and the latter on the environment. Principle 25 also highlights that "Peace, development and environmental protection are interdependent and indivisible. States shall resolve all their environmental disputes peacefully and by appropriate means following the Charter of the United Nations" (Dabiri & Poorhashemi, 2009).

Paragraph 6 of the Copenhagen Declaration states, "Development, social development, and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people.... ". The fifth paragraph of the Johannesburg Declaration states "Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development—economic development, social development, and environmental protection — at the local, national, regional and global levels." It is also stated in Principle 16, "We are determined to ensure that our rich diversity, which is our collective strength, will be used for the constructive partnership for change and the achievement of the common goal of sustainable development(Pūraitė, 2012)."

Environmental provisions in international oil contracts

Oil contracts include terms, each of which refers to the principles of international environmental law to some extent. For instance, Standard requirements, the Stabilization Clause, Clause on Gas flaring, Clause on Access to Water & Others Natural Resources, Liability, Compensation, and Insurance, and Environmental Impact Assessments are the provisions that apply to oil contracts(ADNOC, 2020).

Standard requirements in international standards

Kyla Tienhaara divided environmental standards in oil and gas contracts divided into five items of reference to domestic environmental law only; Reference to international industry standards only; Reference to both domestic law and international industry standards; Reference to domestic law and/or industry

standards and international environmental agreements; and Development of project-specific environmental standards(Tienhaara, 2011).

It has been customary in oil contracts to refer to the domestic law of the host country. But because in some developing countries, environmental laws are not up to date, and oil standards are often used as a benchmark in oil contracts rather than domestic law. These standards are modern and cover topics not normally referred to as environmental law. International oil industry standards are provisions used by some institutions and are set out in guidelines. A case in point is the American Petroleum Institute (API), which determines that its members are dedicated to continuous efforts to improve the compatibility of their operations with the environment while economically developing energy resources and supplying high-quality products and services to consumers. For instance, in Blowout Prevention Equipment (BOPE), API stated that All BOPE should be selected, installed, and properly maintained to prevent uncontrolled releases to the environment.

Another example is ISO which published some standards related to the environment. These standards include the ISO's environmental standards (ISO 14000 family), ISO 14004:2016, and ISO 14012:1996. "In several contracts in the sample, the parties instead included a reference to international industry standards." For example, international standards such as "Good Oilfield Practices" or "Good Production Practices" are used in oil contracts. What is important about these standards is that they should be clearly defined to avoid ambiguity. A 2002 Cambodian contract provides a rare example of a definition: "Good Petroleum Industry Practices means the standards and practices, and exercise of that degree of skill, prudence, and foresight that would reasonably be expected of persons carrying out international petroleum operations, and adherence to generally accepted standards of the international petroleum industry, including sound environmental provisions(Tienhaara, 2011)." In the Concession Contract of the Republic of Mozambique, the International Oil Company undertook to take the necessary measures to prevent environmental damage following the accepted standards in the oil industry, modern techniques, and methods.

References to international standards cause problems with interpretation and implementation due to their ambiguity. Although reference to standards benefits the parties to the oil contracts, the problem is that no specific authority is willing to provide a comprehensive definition of these standards. Therefore, given the many institutions that set these standards, there is a big difference between defining these standards from one contract to another(Wawryk, 2002). As a solution, contracts refer to domestic law and international standards simultaneously. The advantage of this approach is that the action can reduce the existing ambiguities and cause the contract to be executed without any problems.

Under the 2007 Indian Production Sharing Contracts, the International Petroleum Corporation must comply with international oil industry standards and domestic law to carry out its environmental protection role. The majority of contracts

reviewed for this article contained a reference to domestic environmental law and international industry standards. Article 21.1 of Brazil's 2001 Model Concession Contract indicates that industry standards are only intended to act as a supplement to domestic legislation: "The Concessionaire shall adopt, at its own cost and risk, all the necessary measures for the conservation of reservoirs and other natural resources and the protection of the air, soil and water in the surface or the subsurface, subject to Brazilian legislation and rules about the environment and, in their absence or lack, adopting Oil Industry Best Practice in this regard(Tienhaara, 2011)."

The last type of standard is the development of a project-specific environment. A contract between Azerbaijan and a Consortium stipulated that the contractor, The State Oil Company of the Azerbaijan Republic (SOCAR), and the State Committee for the Exploitation of Natural Resources would jointly agree on environmental standards. The use of this type of standard can speed up the implementation of oil projects because to determine this type of standard, the parties to the contract need to agree on ways to protect the environment. Obviously, due to the specific characteristics of each project and oil field, this method will be useful(Young, 2017).

3. Stabilization Clause

Abdullah Faruque defines the stabilization clause as "a form of government guarantee in a negotiated petroleum contract, which usually provides that the terms negotiated under the contract between a state and an International oil Company will not be altered unilaterally or terminated by the state through the promulgation of legislation or regulation. In essence, stabilization clauses aim at the prevention of legislative intervention in the negotiated contract regime"(Faruque, 2006). Today, the condition for the Stabilization Clause is that if the host government makes conflicting laws that affect the economic condition of the contract, the government will compensate the other party's losses equally. By way of illustration, if, under the new law, the number of taxes increases from the time the contract is concluded, the government must pay the additional amount to the other party to maintain and stabilize the economic condition of the contract.

3.1 Gas flaring Clause

Flaring is one of the problems caused by oil operations. Due to the increasing demand for crude oil, many materials are burned. Burning associated gases that are harmful to the environment is inevitable for safety reasons. "The World Bank has estimated that the annual volume of associated gas being flared and vented is about 110 billion cubic meters (bcm), which is enough fuel to provide the combined annual natural gas consumption of Germany and France. Flaring in Africa (37 bcm in 2000) could produce 200 Terawatt hours (TWh) of electricity, which is about 50 percent of the current power consumption of the African continent and more than twice the level of power consumption in Sub-Saharan Africa, except for the Republic of South Africa"(Ismail & Umukoro, 2012). "In the Middle East, where the largest gas flaring volumes occur in Iran and Iraq.

However, Saudi Arabia, Kuwait, Qatar, and other parts of the region have flaring issues. Both satellite and reported data sources indicated 7 to 10 bcm per year of gas flaring. Flaring during oil production operations emits CO_2 (carbon dioxide), CH_4 (methane), and other forms of gases which contribute to global warming causing climate change, and this affects the environmental quality and health of the vicinity of the flares" (Ismail & Umukoro, 2016).

"Despite the global campaign against the flaring of Associated Petroleum Gas (APG) during crude oil production and the resulting environmental degradation, gas flaring remains a major disposal option for unwanted APG. Flaring-associated petroleum gas (natural gas) is an age-long environmental concern that remains unabated. One reason is that flaring can sometimes be more economical than using this gas in some oil fields or regions. Another reason is that some flare facilities believe that flaring is a highly efficient combustion process, especially steam-assisted or air-assisted flare. However, this has serious implications on emissions and ultimately on the environment" (Ismail & Umukoro, 2016). Although environmental laws in Iran as a Middle Eastern country refer to gas flaring, a significant part of associated gas is burned due to oil operations. Hence, Applying strict and precise environmental standards is necessary to reduce these actions.

3.2 Access to Water & Others Natural Resources

Natural materials such as water are needed to carry out oil operations. One of the concerns about oil contracts is that the host governments focus only on oil and gas and neglect other natural resources such as water. The nationalization of the oil industry in oil-rich countries, mainly developing countries, led to the acceptance of permanent sovereignty over natural resources as a principle of international law. This principle is reflected in international documents such as UN resolutions. On December 20th, 1952, the General Assembly adopted Resolution 626 (7), which explicitly stated: "Remembering that the right of people freely to use and exploit their natural wealth and resources is inherent in the sovereignty and is following the Purpose and Principles of the Charter of the UN(ADNOC, 2020)." Subsequently, on December 14th, 1954, the General Assembly, at the requests of the Commission on Human Rights, stated in Resolution 837(9) that: "The permanent sovereignty over natural wealth and resources has been part of the right of peoples and nations to self-determination, which is also part of human rights. Resolution 3171 also protects the sovereignty of developing countries over natural resources". This principle has been emphasized in international treaties. Article 193 of the United Nations Convention on the Law of Sea, December 10th, 1982, notes: "States have the sovereign right to exploit their natural resources according to their environmental policies and following their duty to protect and preserve the marine environment. The Energy Charter Treaty (1994) also recognizes the principle of permanent sovereignty over natural resources. Article 18(1) stated, "The Contracting Parties recognize state sovereignty and sovereign rights over

energy resources. They reaffirm that these must be exercised following and subject to the rules of international law"(Farhad & Khalatbari, 2018).

The sovereignty of nations over their natural resources is not absolute and unconditional, and states must meet environmental reclamation standards in exploiting and using their natural resources. As mentioned earlier, the Stockholm Declaration on the Human Environment of the United Nations Conference on the Human Environment1972 and other documents point to the need to protect the environment. For example, General Assembly Resolution 37/7, World Charter for Nature, addresses sovereignty over natural resources and compliance with environmental requirements. Therefore, countries with oil resources should mention in oil contracts the need to meet environmental standards in the use of natural resources such as water, and they should not relinquish ownership of other natural resources under the pretext of gaining economic benefits because the right to natural resources belongs to all human generations(Hay, 2010).

3.3 Liability, Compensation, and Insurance

Oil operations play a negative role in the environment. Protecting the environment increases the costs for oil companies, which is not cost-effective; they have no incentive to fulfill environmental commitments. Also, there is no response to environmental degradation by oil companies in many developing countries with oil resources due to the lack of adequate laws to protect the environment and deal with polluters. Another problem for oil-rich countries is that if they adopt a strict approach to protecting the environment, international oil companies will not enter those countries to invest in and implement oil projects(Hatami & Karimiyan, 2014; Kuik, 2003).

Gradually, however, a strict doctrine of liability was adopted in the domestic laws of host countries and international treaties on environmental protection. The intervention of governments with oil resources to protect the environment, which is an integral part of human rights, is done through Environmental Regulation. One of the goals of government cooperation in combating environmental degradation is accepting legal principles on environmental protection. The "polluter pays" principle states that whoever is responsible for damage to the environment should bear the costs associated with it(Shiravi, 2016). This principle is expressed in the 16 Principles of the Rio Declaration on Environment and Development, which demonstrates, "The polluter would be a person, company, or other organization whose activities are generating that by-product. Payment should equal to the damage and be made to the person or persons that suffered harm". today, many oil contracts adopt a strict liability doctrine. For example, according to Article 199 of the Civil Code of Qatar, "Any person who commits an act that causes damage to another party shall be liable to indemnify such damage." This legal approach is reflected in Qatar's oil contracts. In a similar case in Abu Dhabi National Oil Company's Contract, it has been stipulated that "Except as specifically provided in this Contract, in no event, including the negligent act or omission on its part, shall either Party be liable to the other, whether under this Contract or otherwise in connection with it, in

contract, tort, breach of statutory duty or otherwise, in respect of any indirect or consequential losses or expenses including if and to the extent that they might otherwise not constitute indirect or consequential losses or expenses, loss of anticipated profits, plant shut-down or reduced production, loss of power generation, blackouts or electrical shut-down or reduction, goodwill, use, market reputation, business receipts or contracts or commercial opportunities, whether or not foreseeable"(ADNOC, 2020; Mohamed & Al-Thukair, 2009).

One of the problems with liability for environmental damage is the ability of the polluter to pay for the damage. Unlike other contracts, oil contracts are complex, and if any of the obligations are violated, there are large costs to the offender. These costs are so high that international oil companies cannot afford them in some cases. One solution to this problem is insurance. In oil contracts, oil companies are committed to ensuring environmental damage. Paragraph 3 of Article 30 of the 1997 Turkmenistan Production Sharing Contract states, "Contractor will obtain and maintain insurance covering clean-up costs for damage to the natural environment, including pollution of the air and water and surface and subsurface soils and waters contained within, under or over the Contract Area and other areas used in connection with activities conducted over or according to this agreement(Hatami & Karimiyan, 2014)." Paragraph 2 of Article 18 of the Contract or exploration and production of hydrocarbons at Morskoye field, Atyrau region, states: "Within 180 (one hundred eighty) days of the date of the contract's effectiveness, the contractor shall work out and submit for approval to the Competent authority a program of insurance against business risk, property and liability insurance concerned with exploration and production of hydrocarbons. Insurance shall be provided for property and liability risks related to environmental pollution including land pollution and costs of elimination of damage caused to the environment including land melioration and recovery"(Hey, 2001).

3.4 Environmental Impact Assessment

"Environmental Impact Assessments (EIAs) is an environmental decision support tool, which provides information on the likely impacts of development projects to those who decide as to whether the project should be authorized. The purpose of an EIA is to determine the potential environmental, social, and health effects of a proposed development so that those who make the decisions in developing the project and in authorizing the project are informed about the likely consequences of their decisions before they take those decisions and are thereby more accountable. It is intended to facilitate informed and transparent decision-making while seeking to avoid, reduce or mitigate potential adverse impacts by considering alternative options, sites, or processes. EIA has been regarded as both a science and an art, reflecting the technical aspects, such as impact identification and prediction, as well as the evaluation, management, and presentation of information". "Like any industry, oil and gas industry operation and activities have the potential to impact the environment, if its impacts are not adequately assessed and managed. The magnitude of the impact increases if the

facility is located near sensitive receptors, such as drinking water sources, residential areas, or protected environments"(Hinkle & Rosencranz, 2008).

Environmental conditions in Iranian oil contracts

To examine the environmental terms in Iran's oil contracts, the laws and legal documents must be reviewed, and then the oil contracts must be reviewed and analyzed.

4.1 Environmental laws and documents

As one of the countries with abundant oil and gas resources, the negative effects of oil activities in Iran are indisputable. Although there are many laws and legal documents on environmental protection in Iran, they have not been useful and have not taken a positive step towards environmental protection. Another problem is the multiplicity of laws and legal documents. However, there is still a lack of a comprehensive law covering all the principles of international environmental law, such as precaution. Article 45 of Iran's Constitution, which deals with the environment, states: " Public wealth and property, such as uncultivated or abandoned land, mineral deposits, seas, lakes, rivers, and other public waterways, mountains, valleys, forests, marshland, natural forests, unenclosed pastureland, legacies without heirs, property of undetermined ownership, and public property recovered from usurpers, shall be at the disposal of the Islamic government for it to utilize following the public interest. Law will specify detailed procedures for the utilization of each of the preceding items". It follows from this article that ownership of mines, including oil resources, is in the hands of the government. Government sovereignty over oil and gas resources has been used as a principle in the Iranian legal system in other laws and legal documents. Paragraph 1 of Article 14 of the Law on the Fourth Economic, Socio-Cultural Development Plan concludes exploration and development contracts conditional on maintaining the sovereignty and exercising state ownership of the country's oil and gas resources. This point is also emphasized in Article 2 of the 1987 Oil Law, and Oil Law Amendment Law approved in 2011. Article 48 of the Constitution states, "There must be no discrimination among the various provinces concerning the exploitation of natural resources, utilization of public revenues, and distribution of economic activities among the various provinces and regions of the country, thereby ensuring that every region has access to the necessary capital and facilities following its needs and capacity for growth." This article refers to the principle of environmental justice. Environmental justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income concerning the development, implementation, and enforcement of environmental laws, regulations, and policies"(Schlosberg, 2009; Nijar, 2013).

Thus, the right to the environment is an undeniable necessity. The third paragraph of Article 26 of the Sixth Five-Year Development Plan states: "The

government is committed to allocating three percent (3%) of the revenues from crude oil and net gas condensate exports to one-third to oil-rich and gas-rich provinces and two-thirds to less developed regions and cities to implement development programs in the form of annual budgets approved by the council. Allocate planning and development to these provinces". Despite what has been said, protecting the environment of the areas where the oil operations are carried out is still not considered. Article 50 of the Constitution, which directly refers to the environment, states, "The preservation of the environment, in which the present and the future generations have a right to flourishing social existence, is regarded as a public duty in the Islamic Republic. Economic and other activities that inevitably involve pollution of the environment or cause irreparable damage to it are therefore forbidden". This principle points out that environmental protection is an obligation that the people and the government are committed to fulfilling. On the other hand, it can be inferred that all oil activities that cause irreparable pollution or irreparable damage to the environment are prohibited.

Moreover, Iranian legal instruments refer to some specific environmental standards. Environmental Impact Assessments (EIAs) are enshrined in other documents, such as the law of the Third Economic, Socio-Cultural Development Plan, and Sixth Five-Year Development Plan, and its implementation is mandatory. The Third Economic, Socio-Cultural Development Plan law also refers to the Polluter Pays Principle as one of the international environmental law principles. But other laws do not mention this important principle. Although environmental laws and documents have been enacted in Iran, comprehensive legislation is still needs. This is because the law still does not mention principles such as the Polluter Pays Principle and the principle of precaution(Skjærseth, 2013; Smits et al., 2014).

4.2 Environmental conditions in Iranian oil contracts

Iran's legal system has to some extent addressed the issue of environmental protection in oil activities. The question is, do environmental conditions apply to Iran's oil contracts? To answer this question, oil contracts must be examined in detail.

Article 33 of The Iranian Buy Back refers to the contractor's obligations to comply with Health, Safety, and Environment requirements. "33.2. The contractor is under obligation to conduct the Development Operations and operating activities if any (a) in an environmentally sensitive manner so that people today, and future generations, may benefit from the wiser stewardship of earth's resources; and (b) in a manner which ensures safety and health in the workplace for the benefit of the personnel and employees of each party, and its subcontractor(c) as well as the public at large" (Hatami & Karimiyan, 2014). Environmental commitments have been addressed in the latest model of Iran's oil contracts, called IPC. This type of contract fits the ESHIA Standards. Environmental, Social, and Health Impact Assessment (ESHIA) Plan requires multi-disciplinary teams to evaluate environmental, social, and health impacts and risks(McHugh et al., 2006).

Among the harmful environmental effects of oil activities in Iran, the pollution of the Persian Gulf, Respiratory diseases, damage to the marine ecosystem, Extinction of animal and plant species in the mangrove forest, and the accumulation of waste can be mentioned. Unfortunately, the focus on economic interests has reduced the government's rigidity in overseeing international oil companies' compliance with environmental commitments. Economic growth is short-term and dangerous, regardless of environmental considerations.

Years of experience in industrial activities have shown that environmental degradation can have far greater economic benefits. These harmful effects on the environment threaten the lives of today and the lives of future generations. Therefore, in addition to the adoption of domestic laws and international treaties on the environment, it is necessary to consider the environmental obligations of the parties to the oil contracts. Although oil companies incur high costs to meet their environmental commitments, compensating for the damage to the environment is higher. The environment cannot be endangered on the pretext that the contractual obligations are not economical. Norway is a good example for developing countries that do not take strict environmental measures. Therefore, the time has come to make an intelligent decision. Developing countries such as Iran must take a strict approach toward industrial operation, namely oil activities. This decision can prevent further environmental pollution.

CONCLUSION

This article examines contractual terms related to environmental issues in contracts and some oil laws and regulations. The main purpose of writing this study is to review the solutions offered in international agreements, analyze the current state of laws and agreements of the Islamic Republic of Iran, and present new solutions. Accordingly, the present study was conducted to analyze the content of international oil and gas laws and agreements. It was observed that contrary to the laws and regulations of the oil and gas fields, in some operational areas, including South Pars, due to the acceleration and expansion of the scope of executive activities and the lack of proper health management. The environmental environment of the Rannap is as follows. Pollution and drought pollution in the sea in recent months in the city of Assaluyeh is a good example of these cases that have been mentioned. The discussion of the removal of fillers also highlights the need to accelerate the management of environmental pollutants in these areas. It is essential to center for monitoring of the environment in this area be established and take immediate action to implement the strategies presented in this article take and a report on the implementation of the requirements of laws and regulations and international standards contained within the given time (e.g., three months) to the environment Provide life. Given the characteristics mentioned in this article, it is still necessary that oil countries, including the Islamic Republic of Iran, in addition to developing the necessary laws and regulations to monitor and control oil operations, implement a

comprehensive monitoring system for the implementation of international oil contracts and apply conditions related to the environment. Despite laws and regulations in the Iranian legal system that refer to compliance with environmental obligations, oil activities in oil-rich areas of Iran, such as Assaluyeh, are expanding rapidly regardless of environmental standards, which has devastating effects on citizens' health. Plant, animal, and air and water quality. Therefore, it is necessary to include the common environmental requirements in international oil contracts, such as the "Environmental Impact Assessment" (IEA) in oil contracts in Iran. The implementation of this commitment depends on several factors: First, serious pre-contract studies must be carried out by the hosting government - Iran - before bidding and inviting international oil companies. In cooperation with the Environmental Protection Agency and scientific and academic centers, the National Iranian Oil Company should prepare a comprehensive report on the human, animal, and plant ecosystem of the area and predict what damages if the obligations under the oil contracts are not met. It enters the oil region. Second, an obligation to provide regular periodic reports (one-month, three-month, six-month, and one-year) by the contractor on implementing environmental commitments to the National Iranian Oil Company must be included in the oil contracts. Third, the National Oil Company must closely monitor the implementation processes of oil and gas projects in Iran and, in the event of a breach of environmental obligations, receive compensation commensurate with what is stated in the contract and require it to restore the status quo to the status quo ante. For example, in the event of pollution from oil and gas transmission, the contractor must compensate. In addition, the National Iranian Oil Company, in cooperation with competent organizations such as the Environmental Protection Organization and scientific, research, and academic centers, should compile and publish a comprehensive report on the environmental status of oil-rich areas so that policymakers can be informed about Provide solutions to stop or reduce the adverse effects of environmental crises.

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