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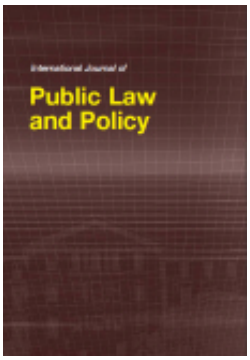

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Hojjat Salimi Turkamani

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Fragmentation in International Energy Law: managing an inevitable phenomenon

Hojjat Salimi Turkamani

Azarbaijan Shahid Madani University,
Tabriz, Iran
Email: Salimi@azaruniv.ac.ir
and
Alexander von Humboldt Foundation,
Heidelberg University, Germany
Email: h.salimiturkamani@uni-heidelberg.de

Abstract: International Energy Law (IEL) in its process of gradual development and evolution has faced the phenomenon of fragmentation in terms of norms and institutions. Normative fragmentation is the logical consequence of the diversification of energy resources, the pursuit of national interests and the intersection of energy issues. Likewise, the reactive basis for the establishment of international organisations and the lack of a global energy organisation with comprehensive jurisdiction cause institutional fragmentation in IEL. This two-dimensional fragmentation leads to conflict or overlap between environmental, economic and political rules and institutions of energy law. The question is how this inevitable issue can be solved? This paper shows that normative fragmentation can be resolved on the basis of traditional VCLT principles, including the harmonious interpretation and supremacy of economic norms over others. But more initiative is needed in the management of institutional fragmentation. The article argues that the creation of world organisation with comprehensive jurisdiction, the preference of energy economic organisations and the creation of hybrid energy organisations are appropriate solutions for managing the institutional fragmentation, respectively.

Keywords: International Energy Law; IEL; normative fragmentation; institutional fragmentation; coherence; efficiency.

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Biographical notes: Hojjat Salimi Turkamani received his PhD in Public International Law in 2012 from Allameh Tabataba'i University, Iran. He is an Associate Professor at Azerbaijan Shahid Madani University and teaches several courses on international law, including treaty law and energy law. His research interests include environmental law and energy law, with a special focus on sustainable development. He was a visiting researcher at the University of Amsterdam and Utrecht University and published his research as a book, *Energy Law* in Iran.

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1 Introduction

Today the scope of international law has been gradually increased and new branches have been created within it, so that it has faced the phenomenon of fragmentation. Since evolution is inherent feature of international law, fragmentation cannot be considered a phenomenon independent of the essence of international law. It is an inevitable response to the demands of a heterogeneous world[1] and largely a feature of modern international law stemming from international practice.[2] In fact, fragmentation is the expansion of subject-areas within international law and the proliferation of international organisations to create a range of specialised regimes arranged along functional lines.[3]

The effects of this phenomenon on international law are significant and increasing. Fragmentation from one hand causes different areas of international law has their own unique rules. It can lead to the specialisation of international law and improve the efficiency of international law by creating a wholesome competitive atmosphere. On the other hand, fragmentation apparently poses a major concern and challenge to the coherence of international law;[4] because it can turn branches of international law into a set of independent rules. Although the branches have a number of specific resources and take different evolutionary paths, all they interact around the axis of public international law and have reciprocal effects on each other's performance and future trends.

International Energy Law (hereinafter, IEL) is one of the emerging branches of international law whose evolution has begun in the 1970s following the economic and environmental problems caused by the use of fossil fuels and the need to replace them with renewable fuels, and accelerated in the light of issues such as globalisation of trade and economy, increasing international transportation and conflicts of interest among international actors in the field of energy.[5] Along with this rapidly growing normative complexity and diversity of international law, the international legal system is also highly institutionalised.[6] Because energy is a broad subject matter and relates to a variety of factors including environment, development, and policy, IEL has become fragmented and the evolutionary process of IEL is tied to and follows the phenomenon of fragmentation.

The impact of the fragmentation on the future of IEL is significant normatively and institutionally. This challenges two main features IEL, namely efficiency and coherence, which can certainly be both opportunities and threats at the same time.[7] Although certain types of fragmentation are not only unnecessary but should be avoided because they undermine the systemic nature of international law, some forms of division in international law are in fact inevitable.[8] The question is how this inevitable phenomenon can be managed? To understand this issue and provide solutions to manage it, the article is structured in three sections. First section will clarify normative and institutional fragmentation in the context of IEL. Second section will study the impact of fragmentation on the field of IEL. Subsequently, third section will present solutions for managing the effects of fragmentation in IEL. At the end, conclusion will be presented from the mentioned matters.

2 Fragmentation in IEL

Before examining the place of fragmentation in IEL, both terms should be explained. According to the Study Group of the International Law Commission's (ILC) extensive work and expertise on the fragmentation, fragmentation represents the international legal

angle of the process of 'functional differentiation' that is occurring in various aspects of society.[9] Therefore, it can be explained by two simultaneous phenomena: the expansion of legal instruments and institutions and their increasing specialisation.[10] IEL includes public international laws that regulate issues related to energy production and distribution. It includes law based on international legal sources arising energy resources and international organisations related to energy supply and demand in global markets.[11]

In spite of increasing importance of energy and its legal arrangements in international level, IEL is neither global nor coherent, and the structure of contemporary international energy is diverse.[12] Fragmentation of IEL is the result of the realities of international cooperation, which sometimes occurs in a nonlinear and heterogeneous way[13] so that numerous subjects related to energy such as economic development, climate change, trade, investment protection, financing, energy security are managed separately regardless of being interrelated.[14]

2.1 Normative fragmentation

Energy norms in international law are largely multiple and heterogeneous. Energy fragmentation is a consequence of the non-coordinated expansion of legal regimes to regulate international economic relations.[15] This means that IEL contains various norms that are not necessarily in compliance with other norms of international law. This situation indicates the realisation of a multi-layered system in the field of energy.[16] In fact, no comprehensive, integrated, unified, and coherent global legal regime, like the Maritime Law, has been established in energy area which specifically controls and governs all energy related subjects.[17] Despite there are some cases of international cooperation on energy, these are clearly not global. For example, although the ECT[18] concerns the promotion of energy trade and investment in the energy industries of member states, at best it covers only specific and limited subjects and only provides energy security in regional level.

Several factors have contributed to the normative fragmentation of IEL. Firstly, since mainly states form energy relations in contemporary international law, their practice can undermine or strengthen IEL.[19] In the light of a realistic view, states pursue their individual interests and do not participate in global arrangements. Ideally, they merely make multilateral or regional agreements only with states that have similar interests in the field of energy. Thus, most energy law stems from national law, and the role of regional and international law in terms of energy issues and ensuring energy production and supply remains unclear and unresolved.[20] The most common source of IEL is bilateral investment treaties that two states enter into to provide specific rights and obligations to each other.[21] Secondly, energy can refer to renewable and non-renewable energies such as oil and gas, as well as subdivisions of these main groups.[22] Since each energy source has own rules in terms of exploitation, production and consumption, inclusion of this wide range of energy sources has reduced the coherence of international energy legal norms.[23] For example, the differences between fossil fuels and nuclear energy have led to the formation of two different legal regimes. The emergence of new energy sources and the formation of special agreements governing on them accelerated this diversification and specialisation trend. Thirdly, some energy-related areas, such as trade and environmental, have no precise boundaries. For example, the offshore transportation of oil and gas concerns both trade law and environmental law. In such cases, the assignment

of obligations of the ship-owner, which is one of the subjects of energy law, can be determined both by reference to the norms of trade law and environmental law. This can cause normative conflicts between trade and environmental norms in the context of energy law. Fourthly, a significant place among the sources of IEL belongs to multilateral regional treaties.[24] For instance, the EU has already adopted different strategies to address energy challenges such as the development of a pan-European electricity transmission network.[25] Because this regional success might lead other regions to follow this solution to solve its problems such as climate change and access to energy, this trend is a threat to the unity and coherence of IEL.[26] Also, Studies show that although Europe's low-carbon energy policies provides new opportunities for cooperation between member states, it may still lead to the fragmentation and pose a serious threat to unfulfilled electricity market unity in Europe.[27] Finally, despite the favourable evolutionary trend over the decades, IEL is still an emerging branch of international law which has not been sufficiently consolidated.[28] Many of IEL instruments and norms including Agenda 21[29] and rules of sustainable energy are still soft law[30] and non-binding. Therefore, their content is often disputed and states, due to different interpretations of non-binding instruments and norms, follow heterogeneous practices that lead to normative conflicts between different rules.

2.2 Institutional fragmentation

From the perspective of fragmentation, the identity of the decision-makers and their degree of homogeneity may be important.[31] The multiplicity of organisations in terms of geography (national, regional and international) and thematic (political, economic and environmental) has led to the institutional fragmentation of IEL.[32] Generally, institutional fragmentation may be either vertical or horizontal. Vertical fragmentation refers to the non-alignment of the institutions. Horizontal fragmentation pertains to the activities of energy departments within each sphere.[33] Although there is a belief that the creation of an institution like International Renewable Energy Agency (IRENA) is desirable and has forced IEA to reconsider its position on renewable energy options,[34] the lack of a coherent set of mechanisms or a global mechanism to include energy issues is undesirable. What exists instead is a set of several separate and independent entities that operate in different dimensions, bilaterally, multilaterally and globally. In general, despite apparent overlaps between institutions involved in energy governance, there are still significant gaps in IEL.[35] Fragmentation in this dimension has its own reasons.

In the field of energy, there is no specialised global organisation with the power to make binding decisions at the highest level.[36] On the contrary, organisational inflation in various dimensions [such as UN-Energy, IRENA, International Partnership for Energy Efficiency Cooperation, Energy Charter Treaty[37], The Group of Eight (G8), International energy Agency (IEA), etc.] with different functions (energy efficiency, renewable energy, nuclear energy, etc.), different actors and ambiguous structures (energy as part of national security, energy as part of the risk discourse, …) has occurred.[38] Therefore, there is no shortage of international institutions, but these government measures to address key energy issues are too short.[39] Apart from the global level, there are regional organisations such as the EU and NAFTA that have significant initiatives in the field of energy. These organisations all have only occasional or limited contact with energy and only pursue specific and limited goals. For example, the United Nations Framework Convention on Climate Change (UNFCCC)[40] differs from organisations such as the Organization of

Petroleum Exporting Countries (OPEC), the International Atomic Energy Agency (IAEA) or the Gas Exporting Countries Forum (GECF). Because the first is only related to the environmental impact of all energy sources, but the others deal mainly with all issues of a particular type of energy source. In general, there are several international organisations, with overlapping functions (positive competence) and contradictory functions (negative competence), which ultimately leads to an increase in the level of fragmentation.[41] In addition to the above, IEL organisations are by nature highly responsive, emerging only in response to international developments and energy crises of their time. Hence, their performance at the time of their establishment was focused on temporary and occasional crises and did not inherently respond to future developments. Because the founders were more concerned with solving existing problems than creating an ideal organisation to solve future problems. In the 1970s, for example, OPEC was initially created in response to the dominance of western states and major oil companies over oil markets and prices, with the aim of reviewing multilateral concessions. It was largely successful and had a great impact on oil prices in world markets, so that the Arab countries of OPEC used this potential during the Arab oil embargo[42] in 1973–1974. In response to the impact of OPEC on global energy trends and rising oil prices in world markets, consumer countries in Europe united to create an organisation to deal with it. Finally the IEA was established with the aim of providing a necessary coordinated response in case of oil shocks. This reactional manner shows that organisations such as OPEC and the IEA were created solely to respond to specific stochastic problems, not to address long-term energy challenges.[43]

3 Effects of fragmentation of IEL

There is considerable disagreement about the impact of fragmentation on the coherence and efficiency of IEL. Most jurists consider fragmentation to be an issue that reduces coherence and has negative effects such as conflicting procedures and decisions, abuse of forum shopping, and conflict of obligations.[44] But others believe that the risk of fragmentation should not be exaggerated[45] since fragmentation is not inherently bad and in some cases it is desirable and leads to increased energy efficiency.[46] They argue fragmentation creates a pluralist dialogue in which information can be shared and different policy views are vented out and also allows the voids left in one regime to be filled out by new agreements and organisations.[47] To properly understand these effects, it is necessary to examine what and how conflict arises in IEL.

3.1 Three conflicting dimensions of IEL

IEL is mainly a battlefield of three categories of norms and institutions with economic, environmental and political nature, so that each of these categories tries to attract IEL to itself. This issue is entitled ‘three-way of energy’.[48]

Historically, the traditional energy process focused on economic growth.[49] At the present time, this dimension mainly deals with energy poverty, trade and investment regimes and energy transit issues. Currently, nearly 1.5 billion people in the world do not have access to electricity, and IEL should make rules and institutions for the proper distribution of energy for these people. In this regard, ECT is mainly considered

economic rules of energy, and the World Bank and the United Nations Development Program (UNEP) are recognised as energy economic institutions. Today, international financial institutions play a key role in the transition to a low-carbon economy.[50]

Energy supply and demand is not always a subordinate of economic considerations, and political considerations are involved too, so that the development of energy relations and trade also depends on political and strategic relations between states. To the extent that in some cases, despite the unfavourable trend of supply and demand according to economic equations, laws and structures are formed based on political equations.[51] This is because energy has become a strategic commodity today and in some cases, is seen merely as a political tool that can be a major security concern for energy dependent export and import states. This has led to division of states into two categories of energy suppliers and energy demandants and the creation of institutions such as IEA, OPEC and GECF. Since security in the international level is a relative concept and the definitions of energy security vary from case to case,[52] adoption of political approach to energy can lead to normative and institutional fragmentation of IEL. Some even go further and claim that the fragmentation is the result of a deliberate agenda of powerful states and serves merely their interests.[53]

Besides, energy and the environment are linked in the natural fuel cycle.[54] Because energy production and consumption create a wide range of environmental challenges, one of the main goals of IEL is to ensure the protection of the environment against the adverse effects of the energy cycle. For instance, energy and climate change are probably the most intertwined issues.[55] In general, environmental issues related to energy use are typically covered by the UNFCCC and the Kyoto Protocol, or ECT,[56] and are institutionally dependent on the activities of organisations such as the UNEP. In this regard the UNEP has taken fundamental steps in the development of IEL by providing guidelines for domestic and international cooperation.[57]

3.2 Functional conflict among three dimensions

Regarding the relationship among political, economic and environmental values in the field of energy, there have always been two different approaches in the legal literature. Some examine the relationship between them from the perspective of integration, and others examine the relationship between them from the perspective of conflict. In the context of the fragmentation and the management of this inevitable phenomenon, the aim is to prevent possible conflicts and to achieve unity integration. Therefore, these two perspectives cannot be evaluated independently and isolated.

The relationship among three dimensions of energy can be functionally conflicting meaning that sometimes achieving the goals of one of them means violating the goals of the other. Sometimes trade and investment agreements may block the actions required by environmental ones.[58] For example, climate change as a conflict between economic development and the reduction of air pollution is still a controversial and unresolved issue in contemporary international law.[59] By requiring developed countries to reduce greenhouse gas emissions and impose prices obligations on greenhouse gas emissions, the Kyoto Protocol seeks to provide the incentive to move countries from high-carbon to low-carbon economies. But on the other hand, the economic rules of energy law seek to ensure that everyone has access to energy at the lowest possible price, one of the prerequisites of which is non-compliance with environmental prices. Initially, it should be noted that the rule of environmental law does not necessarily mean an increase in

economic costs, especially in areas such as human rights and criminal law, but in the field of energy, improving the quality of economic products in the light of compliance with environmental standards in some cases increases costs. A clear example of that is power plants that use cheap fossil fuels that pollute the environment in most developing countries. Replacing these power plants with solar power plants will require an increase in the cost of electricity production. Because the application of environmental prices increases the cost price of each unit of energy and is an obstacle to economic development. In 1998, for example, in the case of *meat hormones*,[60] the WTO Appellate Body did not consider the principle of *precautionary measures* to be subject to WTO treaties. It ruled that, regardless of the status of this principle in international environmental law, this principle does not apply in international trade law. This approach shows that environmental law and international trade law may be subject to different principles. Also, IEA might adopt policies in conflict with obligations to decrease emissions under international environmental law.[61]

Conflicts between the economic and political norms of the energy law can also be raised. The goal of former is to reduce energy poverty through access to affordable energy resources for all human beings. While the latter, especially by dividing states into supplier and consumer and creating economic dependence, tries to regulate energy exchanges in the light of political equations. According to economic logic of energy law, which one of its goals is to reduce energy poverty, the activities of organisations such as OPEC are illegal, but in terms of political logic, which aims to promote the guarantee of energy supply and demand and create dependency, "it is somewhat difficult to judge whether OPEC supplies management activities are illegal."[62] Thus, the high degree of politicisation of the energy sector indicates the existence of threats to the global energy economy and is a challenging issue.[63]

Likewise, the conflict between environmental norms and political norms in the field of energy is conceivable. Where states, despite accepting environmental commitments to reduce emissions from the energy cycle, avoid fulfilling their environmental commitments due to political divisions and agreements they have made with other states for energy supply and demand. A clear example is the avoidance of OPEC member states to fulfil their obligations under the Kyoto Protocol.[64] Because the greater the need to reduce greenhouse gas emissions in consuming countries, the lower the consumption and demand for oil, and the worse the economic situation of OPEC member countries in terms of income. Also there is "considerable gap between the aquis related to climate change applicable in the EU and the commitments made by the contracting parties in the context of the Energy Community, because there is no EU legislation in relation to the reduction of GHGs has been incorporated into the Energy Community Treaty system."[65] Moreover, the UNEP focuses on politics and member state needs rather than pursuing collectively agreed agendas and overarching organisational priorities.[66]

Because in some cases, the normative regime provides an independent organisational structure whose performance overlaps or contradicts the performance of other organisations, they lead to the emergence of institutional fragmentation in the IEL. For example, regional economic integration organisation and 'Conference of the Parties' derive from Articles 1 and 7 of UNFCCC respectively, and the Energy Charter Conference is derived from the ECT. This indicates that the higher the normative fragmentation, the more institutional fragmentation intensifies.

4 Solutions for management of the effects of fragmentation

The fact is that the fragmented IEL faces challenges in achieving its ultimate goal of providing sustainable energy for all human beings. One of the effects of fragmentation is the positive and negative conflict between energy laws and institutions, which has made the future of IEL uncertain. Positive conflict means simultaneously claiming to have the competence of international rules and institutions to apply to a specific issue. This leads to the overlap competence of those institutions and rules. On the other hand, negative conflict means simultaneously claiming of ceding competence by international rules and institutions in favour of other international rules and institutions regarding a specific issue. The result of this is the inability to apply any of the aforementioned rules and institutions in that regard. In particular, negative conflict between environmental and economic organisations of energy sector leads to a systemic obstacle to the coherence of IEL, a challenge that makes it difficult for organisations to collaborate.[67]

4.1 Solutions to normative fragmentation challenge

Normative fragmentation has been defined as anything from a simple conflict of norms to a struggle between competing normative systems.[68] The rules of how to resolve a conflict between the obligations of different treaties are fundamentally different, depending on the legal order in which the conflict is settled. The basic principles for resolving international normative conflicts are set out in Articles 31 to 33 of the 1969 Vienna Convention on the Law of Treaties (VCLT).[69] These are the rules of general international law that precisely resolve normative conflicts.[70] According to it, in the first step, conflict should be avoided, but in case of conflict, it should be resolved through coordination, i.e., compromise. In other words, taking a deterrent approach before a conflict is better than resolving a conflict in the implementation phase. But in the conflict phase, the resolution of the normative conflict will be based on hierarchy. This approach determines the relationship between the upper and lower norms in the international legal system, which can be called a formal hierarchy. In case of conflict between upper and lower norms, lower norms should be interpreted as much as possible in accordance with upper norms (harmonious interpretation solution); otherwise upper norms will be preferable (selection solution). These techniques, which are non-exhaustive and flexible, context-dependent,[71] can be considered as fundamental solutions to reduce the negative effects of fragmentation in IEL.

Solving the fragmentation challenge through harmonious interpretation and systematic coherence has been considered as one of the basic and traditional ways.[72] This solution proceeds on all others, because it is the only way for determining this fact whether there is a true conflict at all.[73] To achieve coherence, when several norms are raised on a single subject, the interpretation should, as far as possible, lead to the presentation of a single set of coherent obligations. Legal interpretation builds systemic relationships between rules and principles in such a way that both norms apply simultaneously and can favourably lead to the coherence and coordination of the international legal system. ICJ has generally confirmed this solution in several cases.[74]

Within the framework of the Energy Law, the set of economic, environmental and political obligations must be interpreted in the same way as possible so that the obligations of states do not conflict. For example, economic development must be interpreted in a way that is compatible with environmental requirements. Otherwise,

development will be unsustainable and the respective states will face a set of conflicting normative commitments. In this regard, the judiciary of the World Trade Organization (WTO), especially the board of appeals, in the light of the reference to the principle of sustainable development in the preamble to the WTO Agreement, emphasises simultaneously environmental norms and recognises non-commercial values in interpreting WTO Agreements. This approach is applicable about climate change obligations as well. In other words, conflicts between the climate change and trade regimes could potentially be resolved through harmonised interpretation.[75] However, since this method is not always effective and is 'far from being a panacea for fragmentation',[76] other solutions are needed.

The second solution is effective when two norms that are both valid and enforceable are not applicable at the same time and one must inevitably be preferred to the other. Although a clear formal hierarchy which could resolve normative conflicts has not really emerged[77] according to the ILC, *Jus Cogens*, obligations under Article 103 of the Charter of UN and special rules (*Lex Specialies*) should prevail over other norms when they conflict with them.[78]

Under Article 53 of VCLT, *Jus Cogens* are rules recognised by "the international community as a whole" as inviolable fundamental rules. ICJ[79], ICTY[80], and ECHR[81] have recognised some norms as *Jus Cogens* in their Precedent explicitly. Also, a non-exhaustive list of the recognised *Jus Cogens* by the ILC contains prohibition of torture, slavery, genocide, racial discrimination and apartheid, aggression, crimes against humanity, the right to self-determination and the basic rules of international humanitarian law.[82] Therefore, in order to resolve conflict among economic, political and environmental norms of energy law, it is necessary to examine which of them have *Jus Cogens* status. There is much disagreement over the nature of environmental norms. ICJ in the Legality of the threat or Use of Nuclear Weapons (1996) and in the Gabčíkovo-Nagymaros Project (1997) has, implicitly not explicitly, referred to the possible existence of environmental peremptory norms protecting the environment.[83] Also the ILC in the draft articles adopted on first reading in 1976 under the topic 'state responsibility', referred to commitments "of essential importance for the safeguarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas" as *Jus Cogens*.[84] This implicit approach indicates that although environmental rules may have a general character[85] and probably may constitute *Jus Cogens* in the future,[86] many of them are still considered by states to be ceremonial matters and often left behind when the interests of states are shaped by other regimes.[87] Also, the rules related to politic and economic development are not still recognised as *Jus Cogens* in international precedent and documents.

Under Article 103 of the UN Charter, the obligations of States under the Charter shall take precedence over their other obligations. Therefore, in the event of such a conflict, the norm in conflict with Article 103 of the Charter of the UN will be unenforceable to the extent of the existing conflict. In *the Lockerbie case*, the Security Council resolution took precedence over the 1971 Montreal Convention in accordance with Article 103.[88] Because changes in energy law occurred mainly at the international level after the 1960s, the Charter has not made a direct reference to energy. Some believe that unlike the environment and politics, which are not specifically mentioned in the UN Charter, the economy is specifically the subject of Chapter IX entitled 'International economic and social co-operation'. Then, the commitments of the member states of the UN set out in

Article 55 to promote conditions of economic progress and development and solutions of international economic might been considered the obligations arising from the UN charter in accordance with Article 103, and make the economic rules of energy law preferable to others. But others argue the charter introduces 'social progress and better standards of life' as one of its goals and the concept of 'higher living standards' contained in Article 55 can be interpreted to include environmental standards as well. In 2022, the United Nations General Assembly declared access to a clean, healthy and sustainable environment a universal human right.[89] The failure to specify the priority of one aspect of energy over another in the charter opens the ground for many interpretive debates.

According to the ILC, in the event of a conflict between special law and general law, the former take precedence over the latter.[90] The general rules, however, will still retain their original validity and fill in the gaps that are not covered by the specific law.[91] This view has also been endorsed by the European Court of Human Rights (ECHR) in *Bankovic v Belgium and Others*.[92] A clear example of special law is diplomatic and consular law which is considered as the self-contained regimes as well.[93] The question here is which of the environmental, economic and political rules is considered a special law and preferable over the others. First of all, it should be noted that all these branches can be considered specific to general international law, just as the ILC has recognised environmental law as having such a status.[94] But they are not considered special in comparison with each other, so that, for example, the rules of environmental law cannot be preferred to the rules of economic law, and vice versa. Because they are the same in terms of inclusion and there is equality between their levels. Therefore, it is not possible to determine the scope and priority of economic, environmental or political norms in general, and for resolving the conflict, it must be considered on a case-by-case.

Finally, it is inferred that none of the economic, political, and environmental norms of energy law are *Jus Cogens* to resolve the conflict. Also, environmental law and development law are not considered *lex specialies*, so that one can generally be preferred to another. However, in the light of the priority of the obligations arising from the UN charter, it can not be necessarily concluded economic, environmental and political norms have priority over others. Therefore, in the context of IEL, in the event of a conflict between norms, the optimal solution is primarily a harmonious interpretation of energy-related norms. Otherwise, one cannot find a clear and precise basis for the priority of some energy-related norms over others.

4.2 Solution for institutional fragmentation challenge

As there is a polycentric and very complex institutional structure in IEL,[95] proliferation of institutions in energy governance has become a major challenge of public international law. Because it may amplify organisational power gaps between different types of state and non-state actors, the challenge is cohesion and efficiency. This means that solutions must be adopted that, while maintaining coherence, also enhance institutional efficiency.

Where several organisations are functionally interconnected, sometimes the policies adopted in one organisation can prevent the successful implementation of the functions of other organisations. For instance, while the IEA is concerned about the supply energy, OPEC is focused on demand security.[96] Similarly, Environmental organisations seek to impose environmental considerations on states in the field of energy, while this has a negative impact on the priorities and goals of economic organisations seeking to reduce

the price of energy resources.[97] Therefore, the first and most desirable solution is to create a world organisation with a superior position like International Civil Aviation Organization (ICAO) or International Maritime Organization (IMO) to include all economic, political and environmental aspects of energy.

It should be mentioned that inflation and the multiplicity of initiatives outside the UN are extently the result of normative and institutional gap within the UN. The gap is due to the reluctance of states to participate in the global energy issue at the UN level. Because they see energy as a predominantly national issue rather than an international one and largely fail to regulate energy in international aspects.[98] To solve this problem, the International Sustainable Energy Organization and the World Sustainable Energy Coalition have presented an international legal document in the field of energy, entitled 'Global energy charter for sustainable development'[99], which has four main goals. One of them is to "propose the establishment of an international energy organization to achieve the objectives of the charter for research and development, commercialization of relevant technologies, exchange of information, control of programs and financial flows." The establishment of this organisation, which can meet the requirements of the three objectives of the document, will pave the way for the institutional unity of the IEL and will be the integration of environmental, economic and political institutions.

Although the creation of a world energy organisation is very desirable, it seems that in the context of the existing international practice and the gap between the group of energy producers and energy consumers, achieving this goal will not be any time soon.[100] Since there is no single international organisation tasked with regulating all energy matters,[101] another solution needs to be used. In the current situation of IEL, which is faced with a plurality of environmental, economic and political organisations, certain organisations must inevitably be given priority. Given that from one hand, environmental organisations impose less constraint on sovereignty of states, especially in issues such as climate change, and on the other hand, the political organisations increase the confrontation and gap among states instead of cohesion, economic organisations have performed better than environmental and political organisations, both in terms of decision-making and compliance with norms. Therefore, achieving the goals of IEL by integrating environmental, economic and political issues in an economic-oriented organisation is more desirable than others. In other words, the best option to reduce organisational pluralism is to explicitly include the principles of environmental law and other conflicting subject areas in the goals and principles of economic organisations. A clear example is the World Bank, which seeks to encourage the development of renewable energy technologies around the world,[102] by prioritising energy poverty over political considerations and divisions related to energy supply and demand. In this case, the overall management should be up to the energy economic organisation. Only if it is unable or unwilling to carry out its legal functions, other energy organisations can fill this gap. In other words, international energy organisations can act independently in cases where their functions overlap, and only in cases of conflict of functions, priority is given to the economic organisation.

Also in some cases, there is a need for organisations that can integrate or bring together several organisations with different goals and functions in the field of energy and have high authority and jurisdiction over its subordinate organisations. Because such organisations receive their superior authority and jurisdiction, formally or informally, from their subordinations, they are called hybrid energy organisations.[103] However, until

global energy organisation is created, this solution is considered complimentary short-term efforts.[104] A clear example of such organisations which can be considered a desirable model for creation comprehensive hybrid energy organisation is the 'International Energy Forum', which was established with the aim of creating a space for dialogue and facilitating cooperation between energy supply organisations such as OPEC and energy consumers such as IEA. Renewable Energy and Energy Efficiency Partnership (REEEP) also exemplifies hybrid energy organisation in the global governance scene which involving both state and non-state actors.[105]

5 Conclusions

Today due to growing position of energy in international relations, IEL has gradually covered a wide and diverse range of economic, political and environmental issues. In these circumstances, the coherence and efficiency of this legal branch has become very important. But coherence and efficiency are linked to the corresponding issue of unity and plurality of international law; Unity that ensures coherence and multiplicity that guarantees the effectiveness. The unity cannot be ignored, nor can the multiplicity of be ignored. Therefore, the issue of unity and multiplicity in IEL is a reality based on the inherent characteristics of the international system that is both an opportunity and a threat to the future of IEL; an opportunity to increase efficiency and a threat to reduce coherence. It should then be managed, not eliminated.

Numerous factors, including the multiplicity of energy resources, the pursuit of national interests, and the creation of regional regimes have led to the emergence of normative fragmentation. Also the gaps within the UN system in creating a global organisation and the reactive nature of international organisations have caused institutional fragmentation. This normative and institutional fragmentation is generally driven from the conflict among economic, environmental and political aspects of IEL and should be managed in such a way as to ensure efficiency while maintaining coherence in the existing system.

The normative fragmentation in IEL can be resolved basically according to the principles of conflict resolution in the VCLT. Initially, the conflict should be prevented by providing a harmonious interpretation; otherwise it is necessary to prioritise a norm over other norms based on the normative hierarchy. In general, under existing IEL, economic norms take precedence over environmental and political norms. About institutional fragmentation, both thematically and geographically, which arise in part from normative fragmentation, an initiative must be taken in the UN preferably. Creating a WEO with a comprehensive jurisdiction to include all sources and dimensions of the energy issue, such as ICAO and EMO, is the initial desirable solution to eliminate functional conflicts. However, until establishment of this organisation, due to the successful performance of economic organisations over other organisations, priority is given to them. Finally, the use of hybrid model that creates and facilitates an atmosphere of cooperation and dialogue among conflicting organisations can slowly and gradually prevent possible future conflicts.

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