

Toward an International Law of Renewable Energies

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Abstract---Studying the topic “Toward an international law of renewable energies” is important for establishing a unified international legal framework to regulate the use and development of renewable energy sources. The article points to the environmental and economic challenges posed by excessive dependence on fossil fuels, highlighting the need to transition to clean and sustainable energies. It also discusses the absence of binding international legal texts that organize cooperation among states in this field, which hampers sustainable development efforts. The article calls for an international treaty dedicated to renewable energies that would include rules for technology transfer, financing for developing countries, and ensuring climate justice. It also stresses the importance of the role of international and regional organizations in coordinating efforts and setting unified technical standards. The article concludes by affirming that laying down an international law for renewable energy is a decisive step to confront climate change and achieve fair and comprehensive global energy security.

Keywords---renewable energies, international law, challenges, environment, sustainable development.

Introduction

Sustainable development is the foremost concern of the international community, as it is the means capable of saving the world from environmental problems that have come to threaten the security and stability of international societies. Thinking about mechanisms that serve this development has

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therefore become necessary, and this is reflected in the global trend to search for the most effective ways to achieve it.

Among the most important of these mechanisms is the use of clean technology, known as renewable energies, which have gained great importance, especially after the decline and depletion of traditional energies and their dire consequences that have affected the environment and humanity as a whole.

Accordingly, states have sought to cooperate among themselves through agreements and international conferences with a view to establishing unified legal rules at the international level. This has led us to address various aspects of the subject in order to determine the level of this cooperation and the extent of its contribution to laying down a legal system specific to renewable energies, despite the scarcity of scientific material due to the reluctance of writers to address it given its novelty. In this study, we followed the descriptive method by addressing data related to the research, and the analytical method by analyzing these data and linking them to the desired outcome of our topic.

The problem that can be raised is as follows:

Are international efforts in the field of renewable energies sufficient to assert the existence of an international law that regulates them, or are they merely attempts to organize this sector?

To answer this problem, we adopted the following plan:

Section One: The limitations of international efforts to establish legal rules for renewable energies.

First: International conferences and renewable energies

Second: The weak role of international organizations in promoting rules regulating renewable energies.

Section Two: International cooperation as an effective mechanism to strengthen rules of an international law of renewable energies.

First: The role of international agreements in the emergence of international legal rules for renewable energies.

Second: The urgent need for an international legal system for renewable energies.

Section One: The limitations of international efforts to establish legal rules for renewable energies

Despite the great importance of renewable energies and the international community's pressing need for an alternative to fossil fuels, interest in establishing international legal rules regulating renewable energies remains weak compared to traditional energies. This appears clearly in the paucity of international conferences devoted to alternative energies (First Requirement), along with the paltry role played by international organizations in this field (Second Requirement).

First: International conferences and renewable energies.

International environmental law began to develop as an independent branch of public international law with the Stockholm Conference held from 5 to 16 June 1972, following increased environmental awareness worldwide and the sounding of the alarm over the deterioration of environmental conditions across the globe.¹

Among the most important outcomes of the conference was the subsequent establishment of the United Nations Environment Programme (UNEP), which led to multiple environmental agreements and the adoption of various programs such as the World Commission on Environment and Development (1983) and the Bali Strategic Plan for Technology Support and Capacity-building (2005).²

¹ - Chokrani El-Hussein, "From the 1972 Stockholm Conference to Rio+20 (2012): An Introduction to Evaluating Global Environmental Policies," *Arab Economic Research*, Center for Arab Unity Studies, Issues 63–64, Summer–Autumn 2013, p. 148, at www.caus.org.

² - Same source, p. 150.

Although the conference did not address renewable energies directly, it urged environmental protection and development in general, which implies a turn toward clean technologies to protect the environment.

The international dimension of renewable energies one of the most important pillars of sustainable development became clear at the 1992 Rio de Janeiro Conference, particularly in Principle 9, which urged the facilitation, development, and transfer of environmentally sound technologies.³

However, the Rio Declaration does not constitute binding international law for the states that agreed to it; rather, it is a moral commitment to uphold its principles, which states are expected to take into account in their mutual relations.⁴

The Rio Conference also produced Agenda 21, which emphasized, under the sustainable development chapter, the development of environmentally sound energy sources and encouraged research into identifying and developing energy sources. The program also called for defining how solar energy could contribute and for improving energy-industry planning.

The United Nations Framework Convention on Climate Change (UNFCCC) of 1992 addressed the reduction of greenhouse gas emissions and the use of appropriate, emissions-free technology, which implicitly urges states to regulate the use of clean and renewable energies.

This convention was followed by the Kyoto Protocol in 1997, which sought to impose specific obligations on state parties to reduce emissions resulting from energy consumption and to push internationally toward the use of renewable energy types.⁵ This protocol is one of the most important legal instruments to confront climate change, as it imposed obligations on industrialized states to reduce greenhouse gas emissions. It is implemented through mechanisms, the most important of which is the Clean Development Mechanism (CDM) (5) under Article 12. It entered into force in 2005, imposing obligations on state parties to reduce emissions resulting from industrialization by 5% compared to 1990 levels.⁶

However, the World Summit on Sustainable Development (Johannesburg), held from 26 August to 4 December 2002, failed to reach the much-anticipated agreement on renewable energies.⁷ A review of these conferences shows a clear focus on the environmental dimension in general, in light of growing indicators of imminent danger to humanity as a whole particularly pollution and the depletion of natural resources which implicitly suggests the necessity of turning to cleaner technologies, namely renewable energies, a point that appears in various recommendations of these international conferences.

In parallel, specialized international conferences on renewable energies were held, including the 2001 Berlin Renewable Energy Conference, where the great need to accelerate the exploitation of renewable energies was highlighted in light of rising energy demand and dwindling oil reserves. Participants agreed to establish an independent International Council on Energy to encourage implementation and issue documents to raise awareness, and to pursue international agreements. The council would convene a scientific forum bringing together politicians, scientists, economists, and legal practitioners lending its decisions greater realism and scientific grounding. The conference, attended by representatives of 154 governments, led to the “Global Renewable Energy Agenda. At the same time, a global parliamentary

³ - Dr. Amer Tarraf, *Environmental Pollution and International Relations*, University Institution for Studies, Publishing and Distribution, 1st ed., 2008, p. 159.

⁴ - Hassouna Abdel Ghani, *Legal Protection of the Environment within the Framework of Sustainable Development*, PhD thesis in Business Law, Mohamed Khider University of Biskra, 2012–2013, p. 37.

⁵ - Dr. Abderrazak Maqri, *Problems of Development, Environment, and International Relations*, Al-Khaldounia Publishing, 2008, p. 273.

⁶ - Al-Azhar Daoud, *Environmental Security from the Perspective of International Law*, Master's dissertation in Public Law (Environment and Urbanism), University of Algiers 1, 2016, pp. 130–131.

⁷ - Study on sustainable development at: bohothe.blogspot.com

forum on renewable energies was held, attended by representatives of seventy countries, emphasizing the importance of enacting laws specific to renewable energies.⁸

This was followed by a series of international conferences devoted to renewable energies, advocating partnerships and urging their regulation within legal frameworks to rationalize their use and ensure their contribution to sustainable environmental development. Among these was the Cancun (Mexico) conference in 2010, which focused on climate change and recommended, among other things:

- Adopting alternative energy sources and developing related technologies;
- International cooperation and the transfer of environmentally friendly technologies.

Finally, although most outcomes of international conferences take the form of recommendations that are not binding on states which may refuse to implement them due to their non-compulsory character by their frequency, coherence, and consensual adoption, they form the first building blocks for new customary legal rules concerning renewable energies. These recommendations establish a basic principle: the need for states to join efforts to use clean, environmentally friendly technology.

Second: The weak role of international organizations in creating rules regulating renewable energies

One cannot deny the role played by the decisions of international organizations in creating international legal rules, as they are among the sources of such rules. International organizations are divided into general and specialized ones, Foremost among these is the United Nations, which has consistently held numerous international conferences in the field of renewable energies. Its recommendations have greatly contributed to generating international interest in adopting legal rules regulating renewable energies, as discussed above.

In this regard, the General Assembly stressed that creating an enabling environment for sustainable industrial development requires measures to facilitate the development and transfer of environmentally sound technologies to developing countries, as well as to advance global goals relating to access to modern forms of energy and efficiency in the use of renewable energies.

The Assembly also highlighted that the United Nations Industrial Development Organization (UNIDO) should encourage South-South cooperation, resource efficiency, and cleaner production.⁹The United Nations has worked to enhance international efforts to reduce pollution by assisting states in concluding environmental protection agreements, including those concerning the use of renewable energies.The Commission on Sustainable Development was also established with the primary goal of ensuring the implementation of Agenda 21, which among other things called for the development of renewable energy sources. Since its establishment, the Commission has played an important role in laying down a common base between developed and developing countries.

In our view, this constitutes customary rules followed in the field of sustainable development and particularly in clean energies even though the Commission lacks the actual authority to impose compliance with the commitments of the Rio Conference. The absence of coercion does not necessarily mean the complete absence of a legal rule. We are likewise aware of the prominent role played by non-governmental organizations (NGOs) in shaping legal rules in general, even if their intervention in the environmental field is modest.¹⁰

⁸ - Adnan Farhan Al-Jurani, "Renewable Energy and Its Role in Achieving Sustainable Development in the United Arab Emirates," *Al-Hiwar Al-Mutamaddin* (Modern Discussion), no. 4117, 6 August 2013, at www.ahewar.org.

⁹ - General Assembly resolution at its 63rd session, agenda item 48, 24 December 2008, pp. 04–07.

¹⁰ - Under Article 71 of the UN Charter, the hidden role of non-governmental international organizations in making laws relating to human rights emerges. See: Abdullah Ali Abboud, *International Organizations*, Qandil Publishing, 1st ed., Amman, Jordan,

Nevertheless, important work has been accomplished in raising awareness about environmental problems in general; NGOs have contributed effectively to preparing and following up on major international conferences. For example, the Climate Action Network (CAN/RAC) closely monitors the implementation of Kyoto measures, including the emphasis on clean energies. The Foundation for International Environmental Law and Development (FIELD), which specializes in international environmental law, also plays a major role in providing high-level expertise, such as integrating environmental rules into the World Trade Organization.¹¹

In the end, despite the multiplicity of international organizations of various types, their salient feature remains the weakness of their role in creating legal rules in the field of sustainable development in general and renewable energy in particular. Even so, we cannot deny the importance of these organizations' decisions in helping to shape legal rules. If not in the immediate future, their role will undoubtedly have an impact, especially as the role of organizations continues to grow internationally. To conclude this section, we can say that although international conferences and organizations have contributed to formulating legal rules related to renewable energies, it is not possible at least at present to assert the existence of an international law of renewable energies.

Section Two: International cooperation as an effective mechanism to strengthen rules of an international law of renewable energies

Given the burdens and costs borne by states in performing functions related to producing renewable energies especially when they are unable to shoulder this sector alone and given the limited capacities, particularly in developing countries, it has become necessary to find foreign partners to benefit from the technology used in this sector, from expertise, and from capital in a way that serves their economies. The most prominent manifestations of such cooperation are investment contracts.

First: The role of international agreements in the emergence of international legal rules for renewable energies

International agreements occupy an important place in crystallizing rules of international law, as they are among the most important sources of legal rules under Article 38 of the Statute of the International Court of Justice. Investment protection agreements being a type of international agreement play a prominent role in forming legal rules regulating the field of alternative energies, particularly since these rules are binding both on the host state and on the investing state.

This contributes to harmonizing legal rules that regulate renewable energies. Recently, trade in renewable energies has increased. Approximately 65 countries plan to invest in this field and have put in place the policies necessary to develop and encourage investment in alternative energies.¹²

Serious investment in developing renewable energy programs and technologies has grown energies that will undoubtedly become the primary energy source in poorer countries, especially as their natural resources are depleted and favorable climatic conditions exist for producing such energy (sunlight, wind, water, etc.), particularly in the Middle East and North Africa and the European Union.¹³ Many

2011, p. 44. The human right to a clean environment necessitates resorting to renewable and clean energies, which is a human right.

¹¹ -Lectures in the Course on International and Regional Organizations: 'The Role of International Organizations in Sustainable Development', at www.droit.dz.

¹² - The Arab States and the Future of Renewable Energies.

¹³ - Colonel (Staff) Elias Abu Jouda, "A Study of Renewable Energy and Its Social and Economic Implications," groups.google.com

countries have therefore concluded agreements. For example, Algeria concluded a contract for a hybrid power generation plant project in Hassi R'Mel.¹⁴

In addition, it signed a bilateral cooperation agreement with China to generate electricity using solar cells. China and Cuba also signed ten cooperation agreements on renewable energies in January of the past year, including a memorandum of understanding between the Cuban "Electronics" group and China's Haier Company to establish a joint venture and a research and development center for renewable energies.¹⁵

Countries have also habitually concluded cooperation agreements in this field with Germany, which is a leader in alternative energies; some states have even modeled their legislation on Germany's renewable energy law. It is notable that both bilateral and multilateral agreements regulating renewable energy are increasing. This will enrich the legal rules governing renewable energies, particularly given their binding nature for the parties concerned setting a model for concluding more agreements in this respect, especially as environmental degradation worsens and traditional energies are depleted, making the shift to alternative energies an inevitable necessity.

Second: The urgent need for an international legal system for renewable energies

Within the framework of sustainable development and protecting the international community from environmental hazards especially greenhouse gas emissions and rising pollution turning to cleaner and safer technologies has become imperative. Thus, "nanotechnology" has emerged as a modern technology in producing renewable energies, defined by the Japanese scientist Taniguchi as technology based on operations of separation, combination, and re-formation of materials at the level of a single atom or molecule.¹⁶

The Technology and Concentration group therefore proposed establishing an international convention to assess new technologies, as a legally binding mechanism managed by a multilateral body. In this regard, the European Commission funded this technology in both the European Union and the United States from a regulatory perspective.

International organizations have likewise called for a legal framework for this technology, along with creating a specialized oversight body. It is also necessary to regulate this activity and its impacts within an international legal framework, particularly concerning the activities of multinational companies investing in the field of renewable energies. Accordingly, rules regulating renewable energies must be unified at the international level to avoid conflicts among domestic laws and disputes arising therefrom, and to establish an international organization to oversee the implementation of agreements related to clean energy technologies.

The international community must therefore make major efforts to regulate renewable energies through legal rules independent of general international law. This can only be achieved through cooperation and concerted international efforts. As a first step, the International Renewable Energy Agency (IRENA) was established the first intergovernmental organization dedicated to developing renewable energies. Constituted on 26 February 2009 in Bonn, Germany, it aims to promote the swift transition to the

¹⁴ - *Algeria and International Cooperation in the Field of Renewable Energies*, dissertation submitted for the Master's degree in International Law and International Relations, prepared by students Si Nasser Mohamed and Si Youssef Abdelkader, Amar Telidji University of Laghouat, 2014–2015, p. 52.

¹⁵ - Cuban and Chinese companies sign agreements to strengthen cooperation in the field of renewable energy, at arabic.china.org.cn.

¹⁶ - Dr. Abdelmajid Musbah, "The Suitability of Legal Legislation for Nano-Renewable Energies (Reality and Aspirations)," Twenty-First Annual Conference on *Energy Between Law and Economics*, 2–21 May 2013, College of Law, United Arab Emirates University, p. 663.

broad, sustainable deployment of renewable energies worldwide.¹⁷ For this reason, we study it separately from other international organizations. It enjoys full legal personality, enabling it to conclude agreements related to renewable energies, whether with member states or with other international organizations.¹⁸

International organizations endowed with legal personality play a role in shaping international law either through their decisions, which are among the sources of legal rules, or through cooperation agreements in this field, which also enrich the legal system with rules regulating the renewable energy sector.

Although IRENA's statute does not expressly provide for its capacity to create legal rules organizing alternative energies, this can be inferred from the functions entrusted to its organs. For example, the Assembly can issue recommendations to IRENA's members upon their request; despite their non-binding nature, these recommendations are a source of international rules.¹⁹ The Assembly may also approve the conclusion of agreements on any subjects or issues that fall within IRENA's statute.²⁰

For its part, the Council is entrusted with concluding agreements or arrangements with states or with international organizations and agencies on behalf of IRENA, subject to the Assembly's prior approval.²¹ The Council also has the authority to conclude agreements on behalf of IRENA to establish relations with the United Nations or any other organization in areas related to IRENA's mandate, as provided for in Article 14 of its statute.

Generally, the Agency cooperates closely with existing institutions and organizations in this field. This cooperation is reflected in concluding agreements and in participating in international conferences related to the Agency's activities. From a practical standpoint: Has IRENA actually contributed to establishing legal rules regulating matters specific to renewable energies?

In truth, given the recent establishment of this international institution, its contributions to laying down international rules are still at an early stage. Nevertheless, we cannot deny its role in participating in international conferences in this area. To sum up this section, although current indicators do not suggest the emergence yet of an independent international law specific to renewable energies, international efforts to set legal controls for this type of energy cannot be underestimated, whether through inter-state cooperation or under the umbrella of IRENA.

Conclusion

In conclusion, it can be said that asserting the existence of an international law of renewable energies is not currently possible a fact borne out by reality due to weak levels of cooperation among states and their efforts to establish unified international legal rules governing the use of renewable energy technologies; the insistence of other states on traditional energies despite the alarm bell ringing over the nearing depletion of this resource; and the weak role assigned to organizations in enriching the legal system of renewable energies.

However, this has not prevented the emergence of new trends to activate this sector through holding international conferences, concluding cooperation agreements on investment, financing, and human capacity-building developments that portend the nascent formation of an international law of renewable

¹⁷ - International Renewable Energy Agency (IRENA), at: <https://ar.m.wikipedia.org>.

¹⁸ - Article 13 of the Statute of the International Renewable Energy Agency provides in paragraph 1: "The Agency shall possess international legal personality. The Agency shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes, subject to the laws of that Member."

¹⁹ - See subparagraph (b) of paragraph 3 of Article 9 of the Statute of the International Renewable Energy Agency.

²⁰ - See paragraph 4 of the same article.

²¹ - See paragraph 6 of Article 10 of the Statute of the Agency.

energies as an independent, self-standing body of law that regulates the use of these energies as the energy of the future.

Given the current circumstances of environmental degradation and dwindling underground resources, and the turn of states' attention to clean technologies, the international community should pursue a set of means to achieve sustainable development, including:

1. Unifying states' positions by adopting unified legal frameworks regulating the use of renewable energies.
2. This legal unification requires establishing standardized international agreements on renewable energies, with a dedicated agreement for each type (solar, wind, hydropower, geothermal, etc.) to regulate it.
3. These rules should be binding and linked to strict penalties for violations. Outcomes of international conferences should be elevated and strengthened so they do not remain mere non-binding recommendations.
4. Emulating leading legislation in renewable energies, such as the German framework, to achieve better results in managing renewable energies.
5. Activating the role of IRENA so that it is not limited to what is provided in its basic statute particularly Article 4 but extends to participating in the creation of laws related to alternative energies, in addition to supporting conferences and programs touching on this area; also activating the role of international organizations by involving them in conferences concerned with renewable energies.
6. Relying on technical, economic, and social studies of renewable energy projects and their environmental impact in creating the legal rules regulating them so that such rules are well aligned.

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