Indonesia Law Review

Volume 11 | Number 2

Article 8

September 2022

The Role Of Expropriation Clauses In Protection And Promotion Of Foreign Investments In Renewable Energy: An Essential But Overlooked Legal Consideration

Moosa Akefi Ghaziani

Payame Noor University (PNU), moosaghazi@yahoo.com

Mohammad Akefi Ghaziani *Univeristy of Qom*, mohammadghazi91@yahoo.co.in

Follow this and additional works at: https://scholarhub.ui.ac.id/ilrev

Part of the Administrative Law Commons, Banking and Finance Law Commons, Civil Law Commons, Commercial Law Commons, Comparative and Foreign Law Commons, International Law Commons, International Law Commons, Law and Economics Commons, Oil, Gas, and Mineral Law Commons, Rule of Law Commons, and the Transnational Law Commons

Recommended Citation

Ghaziani, Moosa Akefi and Ghaziani, Mohammad Akefi (2022) "The Role Of Expropriation Clauses In Protection And Promotion Of Foreign Investments In Renewable Energy: An Essential But Overlooked Legal Consideration," *Indonesia Law Review*: Vol. 11: No. 2, Article 8. Available at: https://scholarhub.ui.ac.id/ilrev/vol11/iss2/8

This Article is brought to you for free and open access by the Faculty of Law at UI Scholars Hub. It has been accepted for inclusion in Indonesia Law Review by an authorized editor of UI Scholars Hub.

Indonesia Law Review (2021) 2 : 191 - 215 ISSN: 2088-8430 | e-ISSN: 2356-2129

THE ROLE OF EXPROPRIATION CLAUSES IN PROTECTION AND PROMOTION OF FOREIGN INVESTMENTS IN RENEWABLE ENERGY: AN ESSENTIAL BUT OVERLOOKED LEGAL CONSIDERATION

Moosa Akefi Ghaziani* and Mohammad Akefi Ghaziani**

* Payame Noor University (PNU), Iran, ** University of Qom, Iran

Article Info

Received: 1 April 2021 | Received In Revised Form: 15 July 2021 | Accepted: 19 August 2021

Corresponding author's e mail: mohammadghazi91@yahoo.co.in

Abstract

Today the world is tackling climate change. The global threat of energy poverty along with the growing need for energy has escalated this crisis. The promotion of renewable energy sources is widely known as the main solution to this challenge. Many International and regional agreements address various aspects of renewable energy development such as trade, transit, security, and investment. Foreign investment is recognized as a crucial prerequisite for the global deployment of renewable energy since not all States have the financial and technological potential to develop this sector. Various investment agreements are signed to facilitate and promote investments. These instruments contain a mixture of obligations that have direct or indirect effects. Expropriation provisions which are often crystallized in the form of 'a duty not to expropriate' are among these obligations. This article analytically describes the legal aspects of this standard and proposes the trends that can better protect the foreign investments in this sector; a factor without which the foreign investors would normally be reluctant to invest. It concludes that restricted police power, guarantees of transfer, and a full compensation standard that entails the payment of compound interest are the prominent legal features that can best perform this task.

Keywords: foreign investment; expropriation; renewable energy; compensation; interest.

Abstrak

Dunia saat ini sedang menghadapi perubahan iklim. Ancaman kemiskinan energi bersamaan dengan peningkatan kebutuhan energi telah meningkatkan laju krisis ini. Dukungan atas sumber energi terbarukan adalah solusi utama dari tantangan ini. Banyak perjanjian internasional dan regional yang mengenai berbagai aspek dari pengembangan energi terbarukan seperti perdagangan, transit, keamanan, dan investasi. Penanaman modal asing dikenal sebagai salah satu prasyarat penting untuk pengunaan energi terbarukan secara global mengingat tidak semua negara memiliki kemampuan dan potensi finansial dan teknologi dalam mengembangkan sektor ini. Berbagai perjanjian investasi telah ditandatangani untuk memfasilitasi dan mempromosikan investasi. Instrumen-instrumen tersebut mengandung campuran dari kewajiban yang memiliki dampak langsung dan tidak langsung. Klausul ekspropriasi yang mengkristal dalam bentuk 'kewajiban untuk tidak melakukan ekspropriasi' adalah salah satu kewajiban tersebut. Makalah ini secara analitis akan mendeskripsikan aspek hukum dari standar ini dan mengusulkan tren yang dapat melindungi penanaman modal asing di sektor ini. Makalah ini menyimpulkan bahwa pembatasan kewenangan negara (police power), jaminan kebebasan transfer, dan standar kompensasi yang penuh yang berujung pada bunga jamak (compound interest) adalah fitur hukum yang penting untuk melaksanakan tugas untuk melindungi PMA.

Kata kunci: investasi asing; ekspropriasi; energi terbarukan; kompensasi; bunga.

DOI: https://doi.org/10.15742/ilrev.v11n2.5

~ 192 ~ GHAZIANI & GHAZIANI

I. INTRODUCTION

Today, the world is confronting the issues of global warming and climate change that are mainly the consequences of the extensive consumption of fossil fuels. Many countries are recognized as vulnerable to climate change impacts. Particularly, Indonesia and other archipelago States are increasingly exposed to extreme events such as floods, droughts, and long-term changes from sea level rise, shifts in rainfall patterns, and increasing temperature. Unlike fossil fuels, renewable energies produce little to no carbon dioxide (CO2) and hence contribute to climate change mitigation. Indeed, 'renewable energy is perceived as a primary ingredient in the world's transition to a green, clean, low-carbon sustainable economy.

According to a report issued by the International Renewable Energy Agency, 'Renewable energy supply, increased electrification of energy services, and energy efficiency can deliver more than 90% of needed reductions to energy-related CO2 emissions, and Renewable energy and electrification alone deliver 75% of emission reductions'.4 Therefore various States have adopted plans to advance renewable energy as a solution to the world's energy and environmental challenges. The world is experiencing a sort of change of paradigm in international energy development and the dominant trends in international energy governance are expected to change 'from access to non-renewable energy sources to access to capital, financial resources, and innovation, plus the minimizing negative environmental impacts from energy investment/development'. However, a full-blown renewable energy deployment will cost billions of dollars which can only be recouped in the long term. ⁷ This requires a surge in foreign investments without which this aim cannot come true. Therefore some scholars have emphasized the need for adding a normative layer to the investment law system to shift the existing obligations towards climate stabilization and the full protection of investments in renewable energy or low-carbon technologies.8

¹ The World Bank Group and Asian Development Bank, *Climate Risk Profile: Indonesia* (Washington, DC: World Bank Publications, 2021), 3. Muhammad Zikra, Suntoyo, and Lukijanto, "Climate Change Impacts on Indonesian Coastal Areas," *Procedia Earth and Planetary Science* 14, (2015). As an archipelago country with over 80.000 kilometers of coastlines, Indonesia is very vulnerable to sea-level rise: at 58.

² Thomas Cottier, "Renewable Energy and Process and Production Methods," *E15Initiative* (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015),

³ Feja Lesniewska, "Renewable Energy Waste Management and the Circular Economy in the EU: Solar PV and Wind Power," in *Research Handbook on EU Energy Law and Policy*, eds. Rafael Leal-Arcas and Jan Wouters (Cheltenham: Edward Elgar Publishing, 2017), 460-69.

⁴ IRENA, Global Energy Transformation: A Roadmap to 2050 (Abu Dhabi: International Renewable Energy Agency, 2019), 11.

⁵ IRENA, *Renewable Energy Prospects: Indonesia, a REmap analysis* (Abu Dhabi: International Renewable Energy Agency, 2017). For instance, Indonesia has revised its National Energy Plan in October 2014; it includes the ambition to reach a renewable energy share of 23% in total primary energy supply by 2025 and at least 31% by 2050: at 30.

⁶ Rafael Leal-Arcas and Jan Wouters, "Introduction," in *Research Handbook on EU Energy Law and Policy*, eds. Rafael Leal-Arcas and Jan Wouters (Cheltenham: Edward Elgar Publishing, 2017), 4.

⁷ Jean-François Gagné, Energy Technology Perspectives: Harnessing Electricity's Potential (Paris: IEA Publications, 2014), 14. IRENA, Perspectives for the Energy Transition – Investment Needs for a Low Carbon Energy System (Bonn: IEA/IRENA, 2017), 8.

⁸ Krista Nadakavukaren Schefer, "Climate Change, Trade, and Investment Law: What Difference Would a Real Responsibility to Protect Make?," in *Emerging Issues in Sustainable Development: International Trade Law and Policy Relating to Natural Resources, Energy, and the Environment*, eds. Mitsuo Matsushita and Thomas J. Schoenbaum (Japan: Springer, 2016). In this work, *Nadakavukaren Shefer* has proposed a new theory named 'The Strong Responsibility to Protect (R2P*)'. According to this theory, the investment law

Although there is no mono-causal link between the conclusion of International Investment Agreements (IIAs) and investment flows, IIAs that combine protection with liberalization commitments and those that embed the investment issues in a broader regional trade context can directly promote foreign investment. Investment in renewable energy is no exception since it principally follows the same economic determinants as other types of foreign investment in general. However, so far no treaty exclusively governs renewable energy investments. Rather, the international legal framework consists of a mixture of binding obligations with direct and indirect effects. Expropriation provisions are among these obligations.

Historically, expropriation is considered the greatest threat against foreign investment and it was the principal motivating factor for the establishment of IIAs. ¹¹ Until the 1980s, the restrictive attitude towards foreign investors caused a large number of expropriations of foreign capital with either little or no compensation. ¹² By the end of the cold war, developing countries no longer perceived foreign investment as a threat to their sovereignty; therefore attracting foreign investment became a central component of their strategies to promote economic growth and development, and hence the environment began to change. ¹³

Today, expropriation claims are often at the core of investment disputes. Probably the most famous investment dispute is the *Yukos* case, in which the Russian oil and gas company (*Yukos*) was awarded 50 billion USD (the greatest arbitration award so far) in compensation for the expropriation of its assets. Lexpropriation claims are not only frequent but also significant in terms of their value. Lexpropriation claims are not only frequent but also significant in terms of their value.

Therefore many countries have enacted investment laws that usually contain guarantees against the expropriation of foreign investment without payment of compensation. Particularly, the States with a history of expropriation intend on giving such guarantees to remove any fear of expropriation that investors may have against this background. Despite the reliability of such unilateral guarantees being

system recognizes the responsibility of States toward a goal of climate stabilization, and therefore, States 'must offer full protection to investments that encourage lower emissions levels or assist in the resilience of local communities': at 383-394.

- ⁹ UNCTAD, World Investment Report 2010: Investing in a Low Carbon Economy (Geneva: United Nations Publication, 2010), 117, 136. R. Leal-Arcas and V. Nalule, "Multilateral and Bilateral Energy Investment Treaties," in *Handbook of International Investment Law and Policy*, eds. Julien Chaisse, Leila Choukroune and Sufian Jusoh (Singapore: Springer, 2021), 2118.
- ¹⁰ Kyla Tienhaara and Christian Downie, "Risky Business? The Energy Charter Treaty, Renewable Energy, and Investor-State Disputes," *Global Governance* 24, no. 3 (2018): 451, 452.
- ¹¹ Kenneth J. Vandevelde, *Bilateral Investment Treaties: History, Policy, and Interpretation* (Oxford: Oxford University Press, 2010), 271.
- ¹² Jonathan Bonnitcha, Lauge N. Skovgaard Poulsen and Michael Waibel, *The Political Economy of the Investment Treaty Regime* (Oxford: Oxford University Press, 2017), 8-9.
 - ¹³ Bonnitcha, Poulsen and Waibel, The Political Economy of the Investment Treaty Regime, 8-9.
- ¹⁴ Yukos Universal Limited (Isle of Man) v Russian Federation (Award) (Permanent Court of Arbitration, Case No 2005-04/AA227, 18 July 2014). See also Michael Hahn and Kateryna Holzer, "Special Agreements and Energy: Filling the Gaps," in *Emerging Issues in Sustainable Development*, eds. Mitsuo Matsushita and Thomas J. Schoenbaum (Japan: Springer, 2016), 268.
- ¹⁵ Although compensation may be awarded in cases invoking other standards of treatment as well, a great number of the compensation awards so far have been associated with expropriation claims: see "Investment Dispute Settlement Navigator," Investment Policy Hub, accessed September 18, 2021, https://investmentpolicy.unctad.org/investment-dispute-settlement.
- ¹⁶ For instance, according to Article 20 of the *Foreign Investment Law of the People's Republic of China* (enacted 15 March 2019),

The state shall not impose levies on any investment from foreign investors. In special circumstances, the state may levy or expropriate the investment of foreign investors per the law as deemed necessary for

disputable, they indicate that the previous policies relating to foreign investment have undergone dramatic changes. Foreign investments must be accompanied by IIAs because firstly, a guarantee given by a government may not bind the succeeding government, particularly if there is a change of government, and secondly, there will be no reliable legal sanction against violations of such guarantees if there is no promise of dispute settlement by an impartial tribunal.¹⁷ IIAs can provide confidence for foreign investors. Today, almost all of these agreements incorporate an expropriation clause with similar wording. In analyzing the expropriation clauses under various IIAs, there are determining factors that may legally impact the overall efficiency of this standard; namely, the definition of investment, the scope of expropriation, and its exceptions.

This article reviews IIAs and arbitral awards, and analytically describes the matter. It tries to answer the key question 'How the expropriate clauses can better contribute to the protection of foreign renewable energy investments?'.

Therefore in three parts, namely on the concept of expropriation, the expropriation clauses under IIAs, and the renewable energy-friendly expropriation clauses, it pursues the assumption that, through the recognition of limited police powers, guarantees of free transfer, and the standard of full compensation including compound interests, expropriate clauses can better contribute to the foreign investments in renewable energies. These are the legal techniques by which IIAs and other investment-related agreements can bring greater outcomes for the protection of investments in renewable energy, and increase the predictability of investment projects which enhances confidence among the prospective foreign investors.

II. THE CONCEPT OF EXPROPRIATION

The concept of expropriation has been gradually expanding and therefore providing a unique definition of expropriation is not an easy task. Even in modern IIAs, the definition of expropriation remains to be controversial.¹⁸

Professor Emerich rightly defines this term according to the *Reid Dictionary*, as the 'operation by which a public administration forces a person to give up land that he or she owns for reasons of public utility and with just and prior indemnity'. He also mentions the broader definition under the *Black's Law Dictionary* as 'the opposite of appropriation'. Concerning kinds of property that may be expropriated, the scope of expropriation mirrors the scope of appropriation; hence, corporeal and incorporeal property, as well as personal and real property, are all prone to expropriation. A similar trend is traceable in the French constitutional case laws, the European constitutional case laws, and the Canadian and Québec case laws.²⁰

Generally, the measures that have a destructive and long-lasting effect on the economic value of an investment and its benefits to the investor, are considered expropriation. These also include *indirect expropriation* which refers to measures that

the public interest. Expropriation and requisition shall be conducted following legal procedures wherein timely and reasonable compensation shall be given.

¹⁷ M Sornarajah, *The International Law on Foreign Investment* (Cambridge: Cambridge University Press, 2021), 129-130.

 $^{^{18}\,}$ Federico Ortino, The Origin and Evolution of Investment Treaty Standards (Oxford: Oxford University Press, 2019), 50.

¹⁹ Henry Campbell Black, Black's Law Dictionary with Pronunciations (St. Paul, MN: West Publishing Company, 1979), 522. See also Hubert Reid, Dictionnaire de Droit Québécois et Canadien (Montréal: Wilson & Lafleur, 2010).

²⁰ Yaell Emerich, *Conceptualising Property Law-Integrating Common Law and Civil Law Traditions* (Northampton, MA: Edward Elgar Publishing, 2018), 151-54.

have effects similar to direct and formal expropriation; such as *defacto* expropriation, ²¹ regulatory expropriation, ²² and creeping expropriation. ²³²⁴

Although there are several recent cases in which the revocation of investment incentives or other government measures are claimed to constitute indirect expropriation of foreign investment, the mere fact that a measure or series of measures have harmed the economic value of an investment does not necessarily imply that an expropriation has occurred.²⁵ As argued by an ICSID arbitral decision, the impact of such measures must necessarily 'deprive the investment of all or substantially all its value'. In addition to this, an indirect expropriation may occur if an investor loses control of its investment, especially when the investment is a company or shareholdings in a company. This may be in the form of lost ownership or management rights, even if the legal title to the investment is not affected. As it is rightly stated by the ICSID arbitral tribunal in El Paso Energy International Company v. The Argentine Republic, 'It is generally accepted that the decisive element in an indirect expropriation is the "loss of control" of a foreign investment, in the absence of any physical taking', and 'a mere loss in value of the investment, even if important, is not an indirect expropriation'. Moreover, such devaluation or loss of control in investment must be definitive and permanent. A temporary devaluation or loss of control is usually not viewed as an expropriation.²⁸ It is however upon the tribunals to evaluate these factors on a case-by-case basis.²⁹

There are restrictions of public international law that respect the basic property rights of individuals as well as of foreigners.³⁰ Therefore, an expropriation can only be lawful if it is accompanied by the payment of financial compensation for the loss suffered by the investor; hence, an act of expropriation without payment of compensation is generally considered unlawful expropriation.³¹ As claimed by the Government of the UK, in *Anglo-Iranian Oil Co. (United Kingdom v Iran)*,

Even in cases where the nationalization of the property of foreigners, including concessions granted to them, is not unlawful on any other ground, the taking

²¹ De facto expropriation refers to a measure or a series of measures that, without being a formal expropriation (de jure), produce an identical effect in practice.

²² It refers to a situation of dispossession resulting from a general regulatory measure that usually has purposes unrelated to foreign investment, such as environmental protection measures, economic regulations, etc.

²³ A creeping expropriation is a set of measures that gradually has the effect of direct expropriation but only qualifies as an expropriation once the investor is actually dispossessed of its assets.

²⁴ Arnaud De Nanteuil, *International Investment Law* (Northampton, MA: Edward Elgar Publishing, 2020), 309.

²⁵ Rachel A. Nathanson, "The Revocation of Clean-Energy Investment Economic-Support Systems as Indirect Expropriation Post-Nykomb: A Spanish Case Analysis," *Iowa Law Review* 98, no. 2 (2013): 865-902.

²⁶ Total SA v Argentine Republic (Decision on Liability) (ICSID Arbitral Tribunal, Case No ARB/04/1, 27 December 2010)]196[-]197[.

²⁷ El Paso Energy International Company v Argentine Republic (Award) (ICSID Arbitral Tribunal, Case No ARB/03/15, 31 October 2011)] 245[-] 249[.

²⁸ See e.g. *Thenicas Medioambientales Tecmed SA v United Mexican States (Award) (2003)* ARB (AF)/00/2 10 ICSID Rep 130, para 116. See also *SD Myers, Inc v Government of Canada (Partial Award)* 40 ILM 1408, paras 279-88; where tribunals have declared 'permanence' as one of the key factors of indirect expropriation.

²⁹ Elizabeth Whitsitt and Nigel Bankes, "The Evolution of International Investment Law and Its Application to the Energy Sector," *Alberta Law Review* 51, no. 2 (2013): 227-8.

³⁰ Stephan Hobe, "The Development of the Law of Aliens and the Emergence of General Principles of Protection under Public International Law," in *International Investment Law-A Handbook*, eds. Marc Bungenberg et al. (Oxford: C.H. Beck/Hart/Nomos, 2014), 19-20.

³¹ Nanteuil, International Investment Law, 316.

~ 196 ~ GHAZIANI & GHAZIANI

of the property becomes an unlawful confiscation unless provision is made for compensation that is adequate, prompt, and effective.³²

However, there is disagreement as to the standards of compensation. So far, several standards of compensation have been introduced, ranging from full compensation to appropriate compensation. The Western States have generally stressed rigorous protection for investors and the full compensation method,³³ whereas developing states have been often inclined to lower their standards of compensation. Therefore various international instruments signed by these States resist full compensation and merely call for appropriate compensation.³⁴ Accordingly, the General Assembly Resolution 1803 (XVII), states that 'In such cases the owner shall be paid appropriate compensation, in accordance with the rules in force in the State taking such measures in the exercise of its sovereignty and in accordance with international law'.³⁵

However today many States generally agree that expropriation triggers full compensation. Moreover, various investment awards have supported full compensation and many IIAs have incorporated this standard.³⁶ Full compensation (*Restitutio ad integrum*) is sometimes equated with the Hull formula of prompt, adequate, and effective compensation. It includes the fair market value of the investment (*damnum emergens*) and the expected profits when appropriate (*Lucrum cessans*). This norm is also supported by the principles of unjust enrichment and acquired rights and the right to property.³⁷ Although it is believed that under most circumstances, full compensation should be paid, there might be instances of nationalization of an economic sector, land reforms, or indigenization programs when less than full compensation would be paid.³⁸

Furthermore, the methods of valuation are different, and adopting each of them may result in a noticeably different amount of compensation. These methods of valuation do not merely call for legal knowledge but also economics and accounting skills.³⁹ There are three basic approaches to valuation: the income-based approach, the market-based approach, and the assets-based approach. Accordingly, various valuation methods exist which may be applied depending on the circumstances of each case. So far there is no consistency in valuation methods applied by the tribunals. According to some research, tribunals often tend to prefer the income-based

³² Anglo-Iranian Oil Co (United Kingdom v Iran) (Memorial submitted by the UK), (International Court of Justice, General List No 16, 10 October 1951 []82].

³³ According to *Lex Mercatoria* also 'full compensation standard' is ordained; including the payment of interests: see Klaus Peter Berger, *The Creeping Codification of the New Lex Mercatoria* (The Netherlands: Kluwer Law International, 2010), 397-398.

³⁴ Anders Henriksen, *International Law* (Oxford: Oxford University Press, 2019), 230.

 $^{^{35}}$ UN General Assembly, Permanent sovereignty over Natural Resources, 17 December 1973, A/RES/3171, para 4.

³⁶ See e.g. *Amco Asia Corporation and others v Republic of Indonesia (Award)* (ICSID Arbitral Tribunal, Case No ARB/81/1, 20 November 1984)]267[. *Lion Mexico Consolidated L.P. v United Mexican States (Award)* (ICSID Arbitral Tribunal, Case No ARB (AF)/15/2, 20 September 2021)]867[. Henriksen, *International Law*, 230.

³⁷ Mark A. Chinen, "The Standard of Compensation for Takings," *Minnesota Journal of International Law* 25, no. 2 (2016): 338-39. Caroline Breton and Antolin Fernandez Antuna, "Compensation Standards," Jus Mundi, last modified September 20, 2021, https://jusmundi.com/en/document/wiki/en-compensation-standards.

³⁸ Sornarajah, The International Law on Foreign Investment, 535-572.

³⁹ Mohsen Mohebi, "Evaluation of Damages in International Investment Arbitration: Appropriate Method," in *International Law in Motion-Some New Insights*, eds. Mohsen Mohebi et al. (Louvain-la-Neuve: PUL Presses, 2020), 132.

approach over the rest. It is suggested that *discounted cash flow (DCF)* is by far the most commonly used valuation method in investment arbitration.⁴⁰

As for now, there are divergent arbitral decisions on the application of the standard of expropriation. In the light of these different approaches regarding the proper standard of compensation and valuation method, it appears that the best solution to settle this issue is to freely incorporate the preferred standards in the applicable IIAs.⁴¹

III. THE EXPROPRIATION PROVISIONS UNDER IIAS

The debates over the restraints an IIA can impose on the States' regulatory authority for the protection of foreign investment call for a proper analysis of expropriation provisions. The expropriation clauses are of the few constants in the IIAs concluded in the past sixty years.⁴²

Generally, the types of assets that can be expropriated under an agreement depend on the definition of 'investment'. The definition of this term under an agreement overshadows other aspects of investment protection and promotion by that instrument.⁴³ Where a measure affects an economic right or an individual asset, the outcome of the expropriation analysis depends on whether the asset concerned is viewed as an investment or whether the investor's overall business or enterprise is viewed as such.⁴⁴

IIAs often adopt a broad definition of investment that refers to 'every kind of assets', 'both tangible and intangible', suggesting that any economic activity is covered by the agreement. But some instruments exclude certain assets or rights from the scope of investment.⁴⁵ While some IIAs have focused on foreign investment in an 'enterprise', rather than in a variety of assets, others (particularly the model treaties drafted by the United States and other capital-exporting States) tend to broaden the scope of the covered investments.⁴⁶ Indeed such a broad definition is determinant in providing the protections against expropriation in various economic sectors, including renewable energy.

Some agreements do not specifically mention indirect expropriation. Although the notion of expropriation is broad enough to cover both direct and indirect expropriations, the inclusion of detailed provisions on indirect expropriation is among the most important developments in investment treaty practice and many recent agreements have taken steps to clarify its relevant factors. Today most IIAs refers to both 'direct' and 'indirect' expropriation.⁴⁷ To explicitly refer to indirect expropriation, these instruments often use phrases such as 'similar measures',

⁴⁰ See e.g. Tenaris S.A. and Talta-Trading e Marketing Sociedade Unipessoal Lda. v Bolivarian Republic of Venezuela (Award) (ICSID Arbitral Tribunal, Case No ARB/12/23, Award, 12 December 2016) [684]-[686]. Anna Tujakowska and Kabir Duggal, "Valuation Methods," Jus Mundi, last modified July 22, 2021, https://jusmundi.com/en/document/wiki/en-valuation-methods. See also "PwC's International Arbitration Damages Research," PWC, last modified December 2017, https://www.pwc.co.uk/forensic-services/assets/pwc-international-arbitration-damages-research-2017.pdf.

⁴¹ Sornarajah, The International Law on Foreign Investment, 571-573.

 $^{^{42}}$ Ortino, The Origin and Evolution of Investment Treaty Standards, 49-51.

⁴³ Nanteuil, International Investment Law, 135.

⁴⁴ UNCTAD, Expropriation: A Sequel (Geneva: United Nations Publication, 2012), 24.

⁴⁵ For instance, The *Framework Agreement on the ASEAN Investment Area* opened for signature on 8 October 1998 (entered into force on 25 May 1999). It specifically excludes portfolio investments from the scope of the definition of investment under this instrument: art 2.

⁴⁶ Sornarajah, The International Law on Foreign Investment, 14-17.

⁴⁷ UNCTAD, Expropriation, 57.

'equivalent to', or 'tantamount to'.

IIAs may provide concise provisions on expropriation and compensation, which often focus on the effect of government actions and do not clarify the non-compensable measures. 48

A concise clause does not necessarily amount to less favorable treatment. Since such provisions are concise in words but broad in implications. Adoption of such broad definitions of expropriation may result in a situation where all State measures detrimental to an investment may be considered as an expropriation, regardless of the underlying reasons. In such situations, if a particular foreign investment is in any way adversely affected by the State measures, the investor may claim that the investment has been expropriated indirectly.⁴⁹ Contrastingly, ample expropriation provisions usually incorporate various exemptions and exclusions that clarify their scope of application. For instance according to Article 13 of the *Energy Charter Treaty* (ECT),

- "1) Investments of investors of a contracting party in the area of any other contracting party shall not be nationalized, expropriated, or subjected to a measure or measures having an effect equivalent to nationalization or expropriation except where such expropriation is:
 - a) for a purpose that is in the public interest;
 - *b) not discriminatory;*
 - c) carried out under due process of law; and
 - d) accompanied by the payment of prompt, adequate, and effective compensation.

Such compensation shall amount to the fair market value of the Investment expropriated at the time immediately before the expropriation or impending expropriation became known in such a way as to affect the value of the investment.

Such fair market value shall at the request of the investor be expressed in a Freely Convertible Currency based on the market rate of exchange existing for that currency on the valuation date. Compensation shall also include interest at a commercial rate established on a market basis from the date of expropriation until the date of payment.

- 2) The investor affected shall have a right to prompt review, under the law of the contracting party making the expropriation, by a judicial or other competent and independent authority of that contracting party, of its case, of the valuation of its investment, and of the payment of compensation, following the principles set out in paragraph (1).
- 3) For the avoidance of doubt, expropriation shall include situations where a contracting party expropriates the assets of a company or enterprise in its area in which an investor of any other contracting party has an investment, including through the ownership of shares."50

 $^{^{48}}$ E.g. Agreement on Reciprocal Promotion and Protection of Investments between Ethiopia and Iran, signed 21 October 2003 (entered into force 15 December 2004) art 7.

⁴⁹ Suzy H. Nikiema, Best Practices-Indirect Expropriation (Winnipeg, Manitoba: IISD, 2012), 3.

 $^{^{50}\,}$ The Energy Charter Treaty, opened for signature on 17 December 1994 (entered into force on 16 April 1998) (ECT).

This treaty clearly extends the jurisdiction of this Article to taxes.⁵¹ Article 24 further excludes this Article from the application of the treaty exceptions.⁵²

Although BITs often contain brief and general expropriation provisions, some of them have established broad provisions on expropriation. So far, only a few agreements may correspond to the *investment agreement between Kuwait and Italy* in terms of its detailed expropriation provision.⁵³

Such detailed provisions will bring additional predictability and clarity for foreign investors. This is an important factor since less predictability may in turn affect the risk-profit assessments usually made by foreign investors, and undermine their confidence.⁵⁴ They also can better define the doctrine of police power which aims to balance public rights and private interests and fits squarely within the theme of sustainability.⁵⁵ These provisions are generally categorized as exceptions to expropriation since they narrow down the scope of protection against expropriation. Among the prominent general exceptions is the doctrine of police power.⁵⁶ This is a well-known principle of international law, according to which a non-discriminatory measure pursuing a general public welfare objective does not violate international law, even if it damages the property interests of foreign investors. Since this is an undisputed principle of international law, the introduction of such exceptions in IIAs can be considered a mere codification of the existing principles.⁵⁷

Although various instruments stipulate such exceptions,⁵⁸ still, there is no universally accepted definition. According to James Crawford, the most widely accepted police power exercises include:

"measures of defense against external threats, confiscation as a penalty for crimes; seizure by way of enforcement of unpaid taxes or other fiscal measures; loss caused indirectly by health and planning legislation and concomitant restrictions on the use of property; the destruction of property of neutrals as a consequence of military operations; and the taking of enemy property as agreed war reparation."59

⁵¹ *Ibid*, art 21(5)(a). See also *Agreement between the United States of America, the United Mexican States, and Canada*, opened for signature 30 November 2018 (entered into force 1 July 2020) art 14(8), Annex B-14 (USMCA).

 $^{^{52}}$ This has double importance in the context of ECT, since under Article 46 'No reservations may be made to this Treaty'.

⁵³ Agreement between Italy and Kuwait for the Promotion and Protection of Investments, signed 17 December 1987 (entered into force 21 May 1990) art 5.

⁵⁴ Kyla Tienhaara, "Unilateral Commitments to Investment Protection: Does the Promise of Stability Restrict Environmental Policy Development?," *Yearbook of International Environmental Law* 17, (2008): 148-159.

⁵⁵ Celine Levesque and Andrew Newcombe, "The Evolution of IIA Practice in Canada and the United States" in *Improving International Investment Agreements*, eds. Armand de Mestral and Céline Lévesque (New York: Routledge, 2013), 36-37.

⁵⁶ This principle is also called as 'right to regulate'. Although it was first developed in the context of expropriation, it has been applied recently in a more general manner, specifically concerning environmental and human rights protection.

⁵⁷ Nanteuil, *International Investment Law*, 357.

⁵⁸ E.g. *General Agreement on Tariffs and Trade*, opened for signature 30 October 1947 (entered into force 1 January 1948) art XX.

⁵⁹ James Crawford, *Brownlie's Principles of Public International Law* (Oxford: Oxford University Press, 2012), 624.

These acts are therefore not subject to compensation. ⁶⁰ In legal scholarship, they are also known as non-compensable measures, since there is a preponderant public interest in these measures, particularly when the treaty law justifies the interference with private property interests. ⁶¹ Today many IIAs incorporate detailed expropriation clauses inter alia to clarify this aspect of expropriation. For instance, the *US Model BIT* provides an Annex that aims to clarify the factors to be weighed in deciding on an indirect expropriation,

- (a) The determination of whether an action or series of actions by a Party, in a specific fact situation, constitutes an indirect expropriation, requires a case-by-case, fact-based inquiry that considers, among other factors:
- (i) the economic impact of the government action, although the fact that an action or series of actions by a Party harms the economic value of an investment, standing alone, does not establish that an indirect expropriation has occurred;
- (ii) the extent to which the government action interferes with distinct, reasonable investment-backed expectations; and
- (iii) the character of the government action.62
- (b) Except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations.⁶³

Therefore if the taking of a property is carried out as a sanction against a violation of environmental or health regulations, this would not amount to expropriation. In present times, police powers must be understood as encompassing a State's full regulatory jurisdiction. The exercise of police powers by a State may manifest itself in adopting new regulations or enforcing the existing regulations concerning a particular investor. But to justify an expropriation, every State may argue that the doctrine of police power justifies its measures. What weight, if any, should the tribunals give to such defenses?

In such cases, the tribunals must in the first place follow the applicable treaty and the respective expropriation clause. The relevant police power clauses, if any, give the tribunals leeway to examine non-investment considerations and also to consider them in the light of the investment protection obligations. Here to understand the purpose of an alleged expropriation, the State action can be put in context. It is noteworthy that the very concept of police power implies the relevance of the purposes behind

⁶⁰ Nanteuil, International Investment Law, 357.

 $^{^{\}rm 61}$ Sornarajah, The International Law on Foreign Investment, 488-492.

⁶² These three clauses represent what is often called the *Penn Central Factors*: see Maryam Malakotipour, "The Chilling Effect of Indirect Expropriation Clauses on Host States' Public Policies: a Call for a Legislative Response," *International Community Law Review* 22, no. 2 (2020): 254-255. Steven J. Eagle, "The Four-Factor Penn Central Regulatory Takings Test," *Penn State Law Review* 118, no. 3 (2014): 601-646.

⁶³ US Model Bilateral Investment Treaty (2012) annex B, art 4. See also The Canadian Model Agreement for the Promotion and Protection of Investments (2014), Annex B.10 (c).

⁶⁴ UNCTAD, Expropriation, 79.

 $^{^{65}\,}$ E.g. Sempra Energy Int'l v Argentina (Award) (ICSID Arbitral Tribunal, Case No ARB/02/16, 28 September 2007).

 $^{^{\}rm 66}\,$ Susan L. Karamanian, "International Energy Trade and Investor-State Arbitration: What Role for Sustainable

Development?," in *Emerging Issues in Sustainable Development*, eds. Mitsuo Matsushita and Thomas J. Schoenbaum (Japan: Springer, 2016), 373-374.

such measures. However, tribunals often apply the sole-effects doctrine.⁶⁷ In other words, tribunals refer only to the effects of the measures on the expropriated property, thus refusing to take the purpose or the legitimacy of these measures into consideration. Whereas any treaty or customary standard that gives leeway for taking non-compensable measures must be balanced against the investment protection measures. Such a balance can be discovered by inquiring critically into the State's action and assessing the options available to the State for the protection of the alleged legitimate interests short of breaching the applicable investment agreement.⁶⁸ Given the lack of precedent, this is not an easy task whatsoever. As the ICSID tribunal has clearly been suggested in *Feldman v Mexico*,

However, it is much less clear when governmental action that interferes with broadly-defined property rights... crosses the line from valid regulation to a compensable taking, and it is fair to say that no one has come up with a fully satisfactory means of drawing this line.⁶⁹

According to some IIAs, a finding of indirect expropriation crucially includes consideration of the soundness and legitimacy of the expropriation measures. Pertinently by referring to the public policy objectives of the host State's measures under review, as one of the relevant factors of 'case-by-case fact-based inquiry', recent agreements have adopted a reasonableness-based approach. For example, paragraph 2 of Annex 8-A of the *Comprehensive Economic and Trade Agreement* (CETA)⁷⁰ prescribes a case-by-case fact-based inquiry to determine whether or not a measure or series of measures of a party constitute indirect expropriation. Such inquiry shall include:

- a) the economic impact of the measure or series of measures, although the sole fact that a measure or series of measures of a Party harms the economic value of an investment does not establish that an indirect expropriation has occurred;
- b) the duration of the measure or series of measures of a Party;
- c) the extent to which the measure or series of measures interferes with distinct, reasonable investment-backed expectations; and
- d) the character of the measure or series of measures, notably their object, context, and intent.

The next paragraph explicitly states:

For greater certainty, except in the rare circumstance when the impact of a measure or series of measures is so severe in light of its purpose that it appears manifestly excessive, non-discriminatory measures of a Party that are designed and applied to protect legitimate public welfare objectives, such as health, safety, and the environment, do not constitute indirect expropriations.

⁶⁷ Ortino, *The Origin and Evolution of Investment Treaty Standards*, 68. "The sole effects approach is often seen as more investor-friendly, whilst the police powers test is viewed as favouring States' rights to regulate': see Ben Mostafa. "The Sole Effects Doctrine, Police Powers and Indirect Expropriation under International Law," *Australian International Law Journal* 15, (2008): 267.

⁶⁸ Karamanian, "International Energy Trade," 378-379.

⁶⁹ Marvin Roy Feldman Karpa v United Mexican States (Award) (ICSID Arbitral Tribunal, Case No ARB(AF)/99/1, 16 December 2002) [100].

 $^{^{70}\,}$ The Comprehensive Economic and Trade Agreement between Canada and the European Union opened for signature on 30 October 2016 (not yet in force).

Accordingly, a State measure to protect the legitimate policy objectives must not be excessive compared to its public policy benefits. However various dimensions of this reasonableness-based approach to indirect expropriation are still not clear.⁷¹

IIAs may provide for exceptions that explicitly or impliedly address the State measures or treaty provisions. These exceptions may target each and every standard of treatment in an agreement.72 For instance, some agreements stipulate that 'an action or a series of actions by a Party cannot constitute an expropriation unless it interferes with a tangible or intangible property right or property interest in an investment'. This clause was first introduced under Annex B of the United States model BIT 2004. It has also been replicated in some other IIAs.73 Such an exception narrows down the scope of economic rights and interests that can be expropriated. Such formulation definitely excludes interests such as goodwill, customer base, or market share. It may also exclude licenses, permits, and other government authorizations, where they do not create property rights, as well as non-property rights such as the pre-establishment rights. However the term 'property interest in investment' is not precisely defined; it could be read as referring to essential rights inherent in the property such as the right to use or the right to dispose and/or to appurtenant and incidental property rights such as an easement. The determination of whether a particular right qualifies as a 'property right' or 'property interest in investment' would have to be made in the light of the domestic law of the host State concerned. As the ICSID tribunal in Suez v. Argentina stated: 'to assess the nature of these rights in a case of alleged expropriation of contractual rights, one must look to the domestic law under which the rights were created'.74

In this regard, no unified method is at hand which can be applied to all cases. The applicable law and the scope of protection may in fact vary depending on the law of the host State. For instance, there is still no consensus on whether or not intangible rights (such as Intellectual Property Rights (IPR)) fall under property rights. Hence it is up to the tribunals to determine the exact scope of such exceptions. However, it is an established principle of law that 'exceptions are interpreted strictly'.

Some agreements specifically exclude certain properties from the protections against expropriation. For instance, under Article 5(3) of the *agreement between Iran and Singapore*, it is agreed that 'Expropriation of land shall be subject to the domestic laws and regulations of the expropriating party'. Similarly, *ACIA* excludes land from the application of treaty protections against expropriation.⁷⁸

⁷¹ Ortino, The Origin and Evolution of Investment Treaty Standards, 168-73.

⁷² Nanteuil, International Investment Law, 360-362.

⁷³ See e.g. *Australia-Chile Free Trade Agreement*, signed 30 July 2008 (entered into force 6 March 2009), annex 10-B (1); *Free Trade Agreement between New Zealand and Malaysia*, signed 26 October 2009 (entered into force 1 August 2010), annex 7; *ASEAN Comprehensive Investment Agreement*, opened for signature 26 February 2009, ASEAN Legal Instruments No 30 (entered into force 29 March 2012) (ACIA) annex 2(1).

⁷⁴ Suez, InterAguas Servicios Integrales del Agua S.A., Sociedad General de Aguas de Barcelona S.A. v The Argentine Republic (decision on liability 30 July 2010) (ICSID Arbitral Tribunal, Case No ARB/03/17, 17 July 2003) 1140[.

⁷⁵ UNCTAD, Expropriation, 17-22.

⁷⁶ 'Leges quae poenam statuunt aut liberum iurium exercitum coarctant aut exceptionem a lege continent, strictae subsunt interpretationi'.

⁷⁷ Agreement on Reciprocal Promotion and Protection of Investments between Singapore and Iran, signed 29 February 2016 (entered into force 28 February 2018).

⁷⁸ ACIA, art 14(1). See also the EU - UK Trade and Cooperation Agreement, signed 30 December 2020, [2020] OJ L 444/14 (provisionally applied 1 January 2021) annex SERVIN-1, reservation 1; in which parties have made reservations on land rights.

Such exceptions overshadow all the real rights (rights in rem) in the expropriated lands. Since land is the object of various property rights, principally, the rights and concessions pertinent to it are also subject to domestic laws of the expropriating party. This kind of exception may undermine the foreign investment flows into various economic sectors; especially in more land-consuming sectors like renewable energy.

Tribunals must also consider if the rules of customary international preclude the responsibility of the expropriating State. It is generally accepted that the circumstances of force majeure, distress, and necessity preclude the wrongfulness of any act of State.⁷⁹

Regarding the controversial issue of compensation, there are various approaches in IIAs. A significant number of agreements, in line with the principles of *lex mercatoria*, adopt the standard of prompt, adequate and effective compensation. The requirement to pay compensation might encompass a standard of valuation. To valuate the amount of an expropriated investment, various standards are mentioned under IIAs. Among these are fair market value, are treated as being equivalent in practice to the more prevalent measure of fair market value. While some agreements address none of these, some recent IIAs explain the methods of valuation in more detail.

According to the *lex mercatoria* and the rules of customary international law, it is well-established that 'payment of compensation shall include interests and has to be made effectively'. 88

Nevertheless, only a few agreements explicitly provide for the payment of interest as part of compensation.⁸⁹ Many agreements also contain guidelines on the applicable

⁷⁹ According to Canon Law: 'Actus positus ex vi ab extrinseco personae illata, cui ipsa nequaquam resistere potuit, pro infecto habetur. Actus positus ex metu gravi, iniuste incusso, aut ex dolo, valet, nisi aliud iure caveatur; sed potest per sententiam iudicis rescindi, sive ad instantiam partis laesae eiusve in iure successorum sive ex officio'. See also International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, adopted 10 August 2001. Supplement No. 10 (A/56/10) arts 23-25.

⁸⁰ Berger, The Creeping Codification of the New Lex Mercatoria, 397-98.

⁸¹ See e.g. Free Trade Agreement between the United States and the Republic of Korea, signed 30 June 2007 (entered into force 15 March 2012) art 11.6. See also Belgium-Luxembourg Economic Union Model Agreement on the Reciprocal Promotion and Protection of Investments, 2019, art 7(2).

⁸² E.g. *Agreement between Thailand and Egypt for the Promotion and Protection of Investments*, signed 18 February 2000 (entered into force 4 March 2002) art 5(1)(c).

⁸³ E.g. Agreement between Belarus and Yemen on the Promotion and the Reciprocal Protection of Investments, signed 18 July 2003 (not yet in force) art 4.

⁸⁴ E.g. Russian Federation Model BIT, 2016, pt IV (31).

⁸⁵ E.g. Agreement on Promotion and Protection of Investments between Bahrain and the Netherlands, signed 5 February 2007 (entered into force 1 December 2009) art 6(c).

⁸⁶ Guilherme Recena Costa and Antolin Fernandez Antuna, "Compensation for Lawful Expropriation," Jus Mundi, last modified September 20, 2021, https://jusmundi.com/en/document/wiki/encompensation-for-lawful-expropriation. The term, fair market value, is distinct from other similar terms because it considers the economic principles of free and open market activity, whereas the term, market value, for instance, simply refers to the price of an asset in the marketplace: see James Chen, "Fair Market Value (FMV)," Investopedia, last modified September 29, 2020, https://www.investopedia.com/terms/f/fairmarketvalue.asp.

⁸⁷ E.g. Netherlands Model Investment Agreement, 2019, art 12.

⁸⁸ Berger, *The Creeping Codification of the New Lex Mercatoria*, 398. See also "Trans-lex Law Research," The Lex Mercatoria (Old and New) and the Translex Principles, accessed September 12, 2021, www.Trans-Lex.org/principles. International Law Commission, *Draft Articles on Responsibility of States*, art 38.

⁸⁹ Agreement between Japan and the Philippines for an Economic Partnership, signed 9 September 2006

rate of interest and do so in a variety of ways, some of which are rather vague while others are quite precise. ⁹⁰ Interestingly some agreements lay down the obligation to pay interest, merely in situations where the payment of the principal amount of compensation is delayed. For instance, Article 4 (2) *Romania-Turkey BIT* provides that 'in the event that payment or compensation is delayed, the investor shall receive interest for the period of any undue delay in making payment'. ⁹¹ It is important to note that IIAs seldom specify whether simple or compound interest rates shall apply. ⁹² It is in fact up to the tribunals to decide, and the majority of them have awarded compound interest so far. ⁹³

Another important aspect of compensation is the currency of payment. IIAs, particularly those concluded before 2000, do not specify the currency to be used for the payment of compensation. However, this approach has evolved. Today, most agreements provide for payment of compensation in a 'freely convertible currency'.94 They are often designed to guarantee the investors' ability to transfer funds in a convertible currency and without undue delay.95

Some transfer clauses only apply to outbound investments. For instance, the *BIT between Belgium-Luxembourg and Hong Kong* stipulates that the host State cannot impose restrictions on the right to transfer investments and returns abroad. Other agreements guarantee transferability for both inbound and outbound transfers. For instance, under Article 12(1) of the *Investment Agreement between Japan and Vietnam*, Each Contracting Party shall ensure that all payments relating to investments in its Area of an investor of the other Contracting Party may be freely transferred into and out of its Area without delay'.

IV. THE RENEWABLE ENERGY INVESTMENT FRIENDLY EXPROPRIATION PROVISIONS

The IIAs at hand are not aimed at the protection of foreign investments in renewable energy. They often do not mention renewable energy as a distinct sector of economic importance. Particularly, BITs not only do not mention renewable energy investment but also are often inattentive to the energy sector *in toto*. Therefore, this

⁽entered into force 11 December 2008) art 95(3).

⁹⁰ The vague clauses often use phrases such as 'appropriate', 'fair', or 'commercially reasonable' interest; on the other hand, the precise provisions often incorporate phrases such as 'LIBOR rate': see generally UNCTAD, *Expropriation*, 45.

⁹¹ Agreement between Turkey and Romania on the Reciprocal Promotion and Protection of Investments, signed 3 March 2008 (entered into force 8 July 2010).

⁹² Diana Rosert, *The Stakes are High: A Review of the Financial Costs of Investment Treaty State Arbitration* (Winnipeg, Manitoba: IISD, 2014), 5.

⁹³ Jonathan Bonnitcha and Sarah Brewin, *Compensation under Investment Treaties* (Winnipeg, Manitoba: IISD, 2020), 9-10.

⁹⁴ E.g. *Agreement between Ethiopia and Spain on the Promotion and Reciprocal Protection of Investments*, signed 17 March 2009 (not yet in force), art 5(3). As suggested by Nanteuil, the issue of convertibility 'requires that such transfers take place in one of the currencies generally used for cross-border transactions: dollar, euro, pound, yen': see Nanteuil, *International Investment Law*, 341-42.

 $^{^{95}}$ Veronika Lakhno and Kabir Duggal, "Transfer," Jus Mundi, last modified September 20, 2021, https://jusmundi.com/en/document/wiki/en-transfers.

⁹⁶ Agreement between the Government of Hong Kong and The Belgo-Luxembourg Economic Union for the Promotion and Protection of Investments, signed 7 October 1996 (entered into force 18 June 2001) art 6.

⁹⁷ Agreement between Japan and Viet Nam for the Liberalization, Promotion, and Protection of Investment, signed 14 November 2003 (entered into force 19 December 2004).

sector simply falls under the general provisions. So there is a long way to go. Given the importance of renewable energy development and the potential role of expropriation provisions in protecting the interests of foreign investors in this sector, it is rational to expect these instruments to pay more attention to the protection of renewable energy-related investments against expropriation and other similar measures by the host States.

To overcome these inefficiencies, some scholars such as Nadakavukaren Schefer argue that the concept of Responsibility to Protect (R2P) could be seen as requiring States to take positive steps in this sphere. He argues that by recognizing the *Strong Responsibility to Protect (R2P*)* in the investment system, a normative layer would be created that can shift the existing obligations towards a goal of climate stabilization and would underlie investment policies to ensure the well-being of populations. Accordingly, the investments that aim to increase human security (e.g. investments in renewable energies) shall continue to enjoy not only all of the protections granted by IIAs but also greater protections. Therefore the new IIAs may begin to consider the normative aspects of this paradigm. *Schefer* suggests that:

"R2P* will in essence require the state to choose the higher norm of human security over the norm of investment protection. But the effects on investment law will not always be detrimental to the investor's interests. For investments in renewable energy or low-carbon technologies, the normative working of R2P* will lead to reinforced protection. Not only would R2P* in such cases maintain any compensation requirement, but it may also even result in the host's losing its 'right' to expropriate given that the government would have a (normatively higher) obligation to promote climate-friendly activities." ⁹⁸

The cases, where foreign investors in the renewable energy sector may be eligible for compensation of losses and the areas that a government is not liable to compensate, depend on the provisions of the applicable IIAs.⁹⁹ It could be argued that the more an agreement protects foreign investments against expropriation, the more foreign investment will be attracted.¹⁰⁰

Expropriation or equivalent measures are often associated with the key policies to promote investment in renewable energy; namely feed-in tariffs (FITs), renewable portfolio standards (RPSs), Tax regulations, rebates, etc.¹⁰¹ Although the often discriminatory nature of such policies is controversial from the viewpoint of the standards of investment protection, the interaction between these policies and the concept of expropriation is kind of unique. The incentive policies do have two faces; the positive face is about the equal imposition on foreign and national investments. But the controversial negative aspect is the matter of revocation of such policies. In other words, various subsidies, government procurements, insurance policies, and mechanisms such as FITs qualify as inducements to investment; hence revocation of such policies, if not discriminatory against the foreign investments, can be seen as

⁹⁸ Schefer, "Climate Change," 385-394.

⁹⁹ Bradford Gentry and Jennifer Ronk, "International Investment Agreements and Investments in Renewable Energy," in *From Barriers to Opportunities: Renewable Energy Issues in Law and Policy*, eds. Leslie Parker et al. (New Haven: Forestry & Environmental Studies Publications Series, 2007), 44.

¹⁰⁰ UNCTAD, World Investment Report 2010, 117, 136.

¹⁰¹ *Ibid*, 65.

a serious distortion of economic equilibrium.¹⁰² In such a scenario, revocation may amount to a breach of the standard of fair and equitable treatment (FET) as an act against the investor's legitimate expectations, and detrimental to 'a stable business environment'.¹⁰³ To avoid this potential challenge many IIAs oblige the parties to provide a stable investment environment or cooperate in this regard.¹⁰⁴ However, revocation of incentive policies has been the subject of many recent investment disputes.¹⁰⁵

Spain, for instance, has revoked in particular many of its FITs to the detriment of the foreign investors in the renewable energy sector. This led to a range of compensation claims under the *ECT*; notably, the case of *PV Investors v Spain* which was the first arbitral case under a multilateral trade agreement where foreign investors in renewable energy have demanded compensation for the revocation of such incentive policies. ¹⁰⁶ In other words, the revocation of renewable energy investment incentives can qualify as indirect expropriation and as a result, the foreign investors may be entitled to compensation. ¹⁰⁷ Although in *PV Investors v Spain* the tribunal did not find indirect expropriation in the actions of the government, it has finally awarded damages in favor of the claimants based on other breaches of the treaty standards. ¹⁰⁸

The most controversial issue concerning the matter of indirect expropriation is to what extent the right of the host State to regulate in the public interests (State's police powers) must be taken into account in the assessment of regulatory measures under the expropriation standard. So far there have been over sixty arbitral awards in which indirect expropriation is found. Although the issue of indirect expropriation and its various aspects remain controversial, the investment tribunals are increasingly awarding compensation for indirect expropriation. As mentioned earlier, they may adopt different approaches to the standards of compensation and methods of valuation and interest rates. Therefore stipulating clear provisions on these issues can greatly contribute to the protection of the interests of foreign investors. For instance, the nuanced approach of the police powers doctrine can better be met when the respective IIA restricts the police power of the State and confers upon the tribunal authority to determine whether or not State measures were reasonable and proportionate. More States are adopting this approach, particularly under their Model

¹⁰² Thomas Dromgool and Daniel Y. Enguix, "The Fair and Equitable Treatment Standard and Revocation of Feed in Tariffs-Foreign Renewable Energy Investments in Crisis-Struck Spain," in *Legal Aspects of Sustainable Development*, ed. Volker Mauerhofer (Switzerland: Springer International Publishing, 2016), ^{A1A}

¹⁰³ Vyoma Jha, "Trends in Investor Claims Over Feed-in Tariffs for Renewable Energy," Investment treaty News: IISD, last modified July 19, 2012, https://www.iisd.org/itn/fr/2012/07/19/trends-in-investor-claims-over-feed-in-tariffs-for-renewable-energy/#_edn2.

¹⁰⁴ See e.g. *ECT*, art 10(1). *Political, Free Trade and Strategic Partnership Agreement between the UK and Ukraine*, signed 8 October 2020 (entered into force 1 January 2021) arts 73, 323.

¹⁰⁵ Igor V. Timofeyev et al., "Investment Disputes Involving the Renewable Energy Industry under the Energy Charter Treaty," in *The Guide to Energy Arbitrations,* eds. J. W. Rowley, Doak Bishop and Gordon E. Kaiser (London: Law Business Research, 2020), 45-70.

 $^{^{106}}$ The PV Investors v The Kingdom of Spain (Permanent Court of Arbitration, Case No 2012-14, 16 November 2011).

¹⁰⁷ Nathanson, "The Revocation of Clean-Energy Investment Economic-Support Systems," 865.

¹⁰⁸ The PV Investors v The Kingdom of Spain, 218.

¹⁰⁹ Anatole Boute, "Combating Climate Change Through Investment Arbitration," *Fordham International Law Journal* 35, no. 3 (2012): 650.

^{110 &}quot;Investment Dispute Settlement Navigator."

¹¹¹ Supra note, 43.

Investment BITs.¹¹² Principally the less police power is recognized for the host States, the more protection foreign investors enjoy inter alia in the renewable energy sector.

As mentioned earlier there are varieties regarding the standards of compensation, valuation methods, and interest rates under the IIAs. To settle this turbulence the best solution is to freely incorporate the preferred standards.¹¹³

It is crystal clear that IIAs articles that stipulate the standard of full compensation, including the payment of compound interest as a part of compensation can to a large extent protect the foreign investments against both direct and indirect expropriation. This is significant since the amount of compound interest may exceed the net sum of compensation, particularly, in long-term capital-intensive renewable energy projects. Although, it is argued that compound interest is the standard business norm and therefore, it is more appropriate to compensate investors on this basis, there are several recent cases where the tribunals have awarded simple interest. Moreover, the incorporation of such provision is of particular importance to the protection of the interests of foreign investors since awarding compound interest as a part of compensation is not a common judicial practice in some States (e.g. Iran). Therefore in case of investment disputes before the national courts, or to exhaust the local remedies, the payment of due interests is not for granted.

Moreover, an ideal IIA guarantees transferability for both inbound and outbound transfer of investments and returns. However, due to various economic or legal reasons, an agreement may not explicitly guarantee such transfers. Here it is preferable that an open-ended list of covered transfers, or a close list, should be drawn; a list that includes the renewable energy-related transfers. This legal technique is particularly important since the issue of currency of payment and transferability may cause difficulties for the long-term renewable energy investors particularly if the host State falls under unilateral or international economic and financial sanctions. In this case, an IIA that rules for the outbound transfer of investment and returns, helps the foreign investors to withdraw their investment and returns from the host State. Here it is the general principle of non-retroactive application of law that safeguards the acquired rights of foreign investors. 120

The presence of various foreign investors and renewable energy plants has one thing in common; it needs land. In solar alone, every megawatt installed needs nearly

Malakotipour, "The Chilling Effect of Indirect Expropriation Clauses," 254-264. E.g. US Model Bilateral Investment Treaty. Also the Canadian Model Agreement.

 $^{^{113}\,}$ Sornarajah, The International Law on Foreign Investment, 571-573.

¹¹⁴ E.g. Agreement between Japan and the Philippines, art 95(3).

¹¹⁵ Rosert, *The Stakes are High*, 5.

¹¹⁶ *Ibid*.

¹¹⁷ See e.g. Bank Melli Iran and Bank Saderat Iran v Bahrain (Award) (Permanent Court of Arbitration, Case No. 2017-25, 9 November 2021) [803]. Saipem SpA v The People's Republic of Bangladesh (Award) (ICSID Arbitral Tribunal, Case No ARB/05/07, 30 June 2009) [211]-[212].

Amir Kordvani and Mari Deris, "International Arbitration Law and Rules in Iran," CMS, last modified December 4, 2020, https://cms.law/en/int/expert-guides/cms-expert-guide-to-international-arbitration/iran. See also Pejman Mohammadi, Amir Moradpourshad, and Hojjat Mobayen, "Effects of Criminal Procedure Act 2014 in Possibility of Claiming Moral Damages and Loss of Profit in Legal System of Iran," *Journal of Private Law Research* 7, no. 24 (2018): 68.

¹¹⁹ E.g. Agreement between Japan and Viet Nam.

¹²⁰ According to Canon Law: Leges respiciunt futura, non praeterita, nisi nominatim in eisde praeteritis caveatur.

7 acres of land.¹²¹ This does not necessarily require the ownership of land, but lease or concession agreements may equally let the foreign investors overcome this challenge. Here the duty not to expropriate has a crucial role to play. Almost all IIAs have some sort of pessimism towards land ownership by foreigners. This approach, though conceived as a normal consequence of the principle of territorial sovereignty of States, has been to a great extent waived in various IIAs. However, some agreements specifically exclude land rights from the protections against expropriation. For instance, under Article 5(3) of the Agreement between Iran and Singapore, 'Expropriation of land shall be subject to the domestic laws and regulations of the expropriating party'. 122 Similarly, ACIA excludes land from the application of treaty protections against expropriation. 123 Such exceptions are clearly against the interests of the foreign investors since foreign investment in renewable energy is better protected under IIAs that provide more or less equal land rights for the foreign and national investors. Principally, the more an IIA restricts the land rights of foreign investors, the less likely the foreign investments will flow into this sector; particularly concerning the more land-consuming solar and wind energy plants.

Interestingly, some instruments commonly adopt a very broad definition of investment, often centered on a general clause (e.g. 'every kind of asset'), and an illustrative list of assets, typically including immovable property and natural resource concessions. Immovable properties would cover proprietary interests in land, and natural resource concessions would cover land concessions or leases. For example, the *BIT between Colombia and UK*, mentions the 'concessions to explore, grow, extract or exploit natural resources' as a kind of investment.¹²⁴ This is a preferable trend to protect the foreign investment in renewable energies, particularly since the agreement does not stipulate any further exceptions on the expropriation of land or other immovable property rights.¹²⁵

However, we must admit that the concept R2P* as proposed by Nadakavukaren Schefer remains to be merely a political or policy paradigm, a *lex ferenda*, rather than being a part of contemporary IIAs; a *lex lata*. The solution at hand seems to be amending or redrafting the relevant expropriation clauses. However various IIAs may require no urgent reform as such. In some instances, a mere interpretation can increase the predictability of investment projects and the confidence of prospective foreign investors. The IIAs equipped with binding interpretive powers are therefore recommended. A prominent example is the establishment of the *Free Trade Commission* under Chapter 30 of the *USMCA* which is 'composed of government representatives of each Party at the level of Ministers or their designees'; The regarding the interpretation or application of the *USMCA* provisions, this commission provides binding interpretations. Such interpretations have a *de facto* precedential

¹²¹ Etienne Lecompte, "What You Need to Know About Renewable Energy Land Lease Management," Powerhub, last modified July 4, 2019, https://powerhub.com/blog/what-you-need-to-know-about-renewable-energy-land-lease-management/.

¹²² Agreement on Reciprocal Promotion and Protection of Investments between Singapore and Iran.

¹²³ ACIA, art 14(1). EU – UK Trade and Cooperation Agreement, annex SERVIN-1, reservation 1.

¹²⁴ Bilateral Agreement for the Promotion and Protection of Investments between the UK and Colombia, signed 17 March 2010, (Cm 8887, 2014) (entered into force 10 October 2014) art 1(2)(v).

¹²⁵ Ibid, art VI.

Shinya Murase, "Comments to Climate Change, Trade, and Investment Law. What Difference Would a Real Responsibility to Protect Make?," in *Emerging Issues in Sustainable Development*, eds. Mitsuo Matsushita and Thomas J. Schoenbaum (Japan: Springer, 2016), 401.

¹²⁷ USMCA, arts (30.1)-(30.3).

value as well.128

Interestingly some recent IIAs have taken promising steps to overcome the inconsistencies. Under Article 29 of the *Investment Agreement between India and Belarus*, for instance, the parties are encouraged to establish a special appellate body or similar mechanism for which they are asked to consider inter alia 'the scope and standard of review of such an appellate body'. Such initiatives will principally lead to a more conclusive and harmonized application of investment law, at least in the reciprocal relationship of the State parties and their nationals. They can generate more consistency and predictability in arbitral awards and eliminate ambiguities regarding various issues, including expropriation, or other equivalent measures against foreign investments.

V. CONCLUSION

IIAs and legal scholars have not yet come up with an independent role of the expropriation provisions in the promotion of foreign investment in renewable energy. In fact, various legal potentials of this standard are not exploited. Although some scholars have, under the concept of R2P*, for instance, proposed for the host's losing their right to expropriate investments in renewable energy or low-carbon technologies, this idea is merely a proposal in international legal doctrine and it is still to be seen how the future IIAs are going to incorporate this concept. However, according to the doctrine of party autonomy (libertas contractuum) achieving many of these standards and protections is a matter of bargaining between the States. These are the civilized pro-sustainability governments that have the central role in attracting the foreign investment flows into this sector, and so far some promising steps have been taken. For instance, introducing the nuanced approach of police powers doctrine by the US Model Bilateral Investment Treaty which restricts the States in their discretion to take arbitrary measures against foreign investments is a promising step that obviously serves long-term foreign investments. However, the cutting-edge foreign investment protection that clearly benefits renewable energy investments is the standard of full compensation as provided by the Agreement between Japan and the Philippines. It is suggested that such clauses may as well entail the payment of compound interest to bring additional protection and confidence to the investors. In the same way, the guarantees of transfer can supplement this criterion. Although there may be different scholarly points of view on this matter, these provisions not only help in cases of economic or financial sanctions but also generally obliges the States to effectively adhere to such transfers. The development of renewable energies in many countries requires huge amounts of investment; whereas many sun-rich countries of Africa, for instance, are prone to economic instability and they may intermittently have no inclination to facilitate outbound transfers. This situation increases the potential risks for foreign investors; therefore such clauses can alleviate this concern. This is the approach upheld by the Agreement between Japan and Viet Nam and the Agreement between the Government of Hong Kong and The Belgo-Luxembourg Economic Union. Given that IIAs usually do not address renewable energy aspects of expropriation clauses, redrafting IIAs and incorporating the relevant approaches, can reduce the divergent arbitral awards in similar or identical investor-State disputes, and may enhance the predictability and confidence among the prospective renewable energy investors.

¹²⁸ Malakotipour, "The Chilling Effect of Indirect Expropriation Clauses," 268-269.

¹²⁹ Treaty between Belarus and India on Investments, signed 24 September 2018 (not yet in force) art 29(b).

~ 210 ~ GHAZIANI & GHAZIANI

BIBLIOGRAPHY

Legal Documents

Agreement between Belarus and Yemen on the Promotion and the Reciprocal Protection of Investments, signed 18 July 2003 (not yet in force).

- Agreement between Ethiopia and Spain on the Promotion and Reciprocal Protection of Investments, signed 17 March 2009 (not yet in force).
- Agreement between Italy and Kuwait for the Promotion and Protection of Investments, signed 17 December 1987 (entered into force 21 May 1990).
- Agreement between Japan and the Philippines for an Economic Partnership, signed 9 September 2006 (entered into force 11 December 2008).
- Agreement between Japan and Viet Nam for the Liberalization, Promotion, and Protection of Investment, signed 14 November 2003 (entered into force 19 December 2004).
- Agreement between the Republic of Korea and Mongolia on the Mutual Promotion and Protection of Investments, signed 28 March 1991 (entered into force 30 April 1994).
- Agreement between Thailand and Argentina for the Promotion and Reciprocal Protection of Investments, signed 18 February 2000 (entered into force 7 March 2002).
- Agreement between Thailand and Egypt for the Promotion and Protection of Investments, signed 18 February 2000 (entered into force 4 March 2002).
- Agreement between the Government of Hong Kong and The Belgo-Luxembourg Economic Union for the Promotion and Protection of Investments, signed 7 October 1996 (entered into force 18 June 2001).
- The Agreement between the United States of America, the United Mexican States, and Canada, opened for signature on 30 November 2018 (entered into force 1 July 2020).
- Agreement between Turkey and Romania on the Reciprocal Promotion and Protection of Investments, signed 3 March 2008 (entered into force 8 July 2010).
- Agreement on Promotion and Protection of Investments between Bahrain and the *Netherlands*, signed 5 February 2007 (entered into force 1 December 2009).
- Agreement on Reciprocal Promotion and Protection of Investments between Ethiopia and Iran, signed 21 October 2003 (entered into force 15 December 2004).
- Agreement on Reciprocal Promotion and Protection of Investments between Singapore and Iran, signed 29 February 2016 (entered into force 28 February 2018).
- ASEAN Comprehensive Investment Agreement, opened for signature on 26 February 2009, ASEAN Legal Instruments No 30 (entered into force 29 March 2012).
- Australia-Chile Free Trade Agreement, signed 30 July 2008 (entered into force 6 March 2009).
- Belgium-Luxembourg Economic Union Model Agreement on the Reciprocal Promotion and Protection of Investments, 2019.
- Bilateral Agreement for the Promotion and Protection of Investments between the UK and Colombia, signed 17 March 2010, (Cm 8887, 2014) (entered into force 10 October 2014).
- The Comprehensive Economic and Trade Agreement between Canada and the EU, opened for signature on 30 October 2016 (not yet in force).
- *Energy Charter Treaty*, opened for signature on 17 December 1994 (entered into force on 16 April 1998).
- EU UK Trade and Cooperation Agreement, signed 30 December 2020, [2020] OJ L 444/14 (provisionally applied 1 January 2021).

Framework Agreement on the ASEAN Investment Area, opened for signature on 8 October 1998 (entered into force on 25 May 1999).

Free Trade Agreement between New Zealand and Malaysia, signed 26 October 2009 (entered into force 1 August 2010).

Free Trade Agreement between the United States and the Republic of Korea, signed 30 June 2007 (entered into force 15 March 2012).

Foreign Investment Law of the People's Republic of China (enacted 15 March 2019),

General Agreement on Tariffs and Trade, opened for signature on 30 October 1947 (entered into force on 1 January 1948).

International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, adopted 10 August 2001. Supplement No. 10 (A/56/10).

Netherlands Model Investment Agreement, 2019.

Political, Free Trade, and Strategic Partnership Agreement between the UK and Ukraine, signed 8 October 2020 (entered into force 1 January 2021).

Russian Federation Model BIT, 2016.

The Canadian Model Agreement for the Promotion and Protection of Investments (2014).

Treaty between Belarus and India on Investments, signed 24 September 2018 (not yet in force).

UN General Assembly, *Permanent sovereignty over Natural Resources*, 17 December 1973, UN Doc A/RES/3171.

US Model Bilateral Investment Treaty (2012).

Law Cases

Amco Asia Corporation and others v Republic of Indonesia (Award) (ICSID Arbitral Tribunal, Case No ARB/81/1, 20 November 1984).

Anglo-Iranian Oil Co (United Kingdom v Iran) (Memorial submitted by the UK), (International Court of Justice, General List No 16, 10 October 1951(.

Bank Melli Iran and Bank Saderat Iran v Bahrain (Award) (Permanent Court of Arbitration, Case No. 2017-25, 9 November 2021).

El Paso Energy International Company v Argentine Republic (Award) (ICSID Arbitral Tribunal, Case No ARB/03/15, 31 October 2011).

Lion Mexico Consolidated L.P. v United Mexican States (Award) (ICSID Arbitral Tribunal, Case No ARB (AF)/15/2, 20 September 2021).

Marvin Roy Feldman Karpa v United Mexican States (Award) (ICSID Arbitral Tribunal, Case No ARB (AF)/99/1, 16 December 2002).

Saipem SpA v The People's Republic of Bangladesh (Award) (ICSID Arbitral Tribunal, Case No ARB/05/07, 30 June 2009).

SD Myers, Inc v Government of Canada (Partial Award) 40 ILM 1408.

Sempra Energy Int'l v Argentina (Award) (ICSID Arbitral Tribunal, Case No ARB/02/16, 28 September 28, 2007).

Suez, InterAguas Servicios Integrales del Agua S.A., Sociedad General de Aguas de Barcelona S.A. v The Argentine Republic (decision on liability 30 July 2010) (ICSID Arbitral Tribunal, Case No ARB/03/17, 17 July 2003).

Tenaris S.A. and Talta-Trading e Marketing Sociedade Unipessoal Lda. v Bolivarian Republic of Venezuela (Award) (ICSID Arbitral Tribunal, Case No ARB/12/23, Award, 12 December 2016).

The PV Investors v The Kingdom of Spain (Final Award) (Permanent Court of Arbitration,

~ 212 ~ GHAZIANI & GHAZIANI

- Case No 2012-14, 16 November 2011).
- Thenicas Medioambientales Tecmed SA v United Mexican States (Award) (2003) ARB (AF)/00/2 10 ICSID Rep 130.
- Total SA v Argentine Republic (Decision on Liability) (ICSID Arbitral Tribunal, Case No ARB/04/1, 27 December 2010).
- Yukos Universal Limited (Isle of Man) v Russian Federation (Award) (Permanent Court of Arbitration, Case No 2005-04/AA227, 18 July 2014).

Books

- Bonnitcha, Jonathan, Lauge N. Skovgaard Poulsen, and Michael Waibel, *The Political Economy of the Investment Treaty Regime.* Oxford: Oxford University Press, 2017.
- Bonnitcha, Jonathan, and Sarah Brewin. *Compensation under Investment Treaties.* Winnipeg, Manitoba: IISD, 2020.
- Campbell Black, Henry. *Black's Law Dictionary with Pronunciations.* St. Paul, MN: West Publishing Company, 1979.
- Cottier, Thomas. "Renewable Energy and Process and Production Methods." *E15Initiative.* Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2015.
- Crawford, James. *Brownlie's Principles of Public International Law.* Oxford: Oxford University Press, 2012.
- De Nanteuil, Arnaud. *International Investment Law.* Northampton, MA: Edward Elgar Publishing, 2020.
- Dromgool, Thomas, and Daniel Y. Enguix. "The Fair and Equitable Treatment Standard and Revocation of Feed in Tariffs-Foreign Renewable Energy Investments in Crisis-Struck Spain." In *Legal Aspects of Sustainable Development*, edited by Volker Mauerhofer, 389-422. Switzerland: Springer International Publishing, 2016.
- Emerich, Yaell. Conceptualising Property Law-Integrating Common Law and Civil Law Traditions. Northampton, MA: Edward Elgar Publishing, 2018.
- Gagné, Jean-François. Energy Technology Perspectives: Harnessing Electricity's Potential. Paris: IEA Publications, 2014.
- Gentry, Bradford, and Jennifer Ronk. "International Investment Agreements and Investments in Renewable Energy." In From Barriers to Opportunities: Renewable Energy Issues in Law and Policy, edited by Leslie Parker et al., 25-88. New Haven: Forestry & Environmental Studies Publications Series, 2007.
- H. Nikiema, Suzy. Best Practices-Indirect Expropriation. Winnipeg, Manitoba: IISD, 2012.
- Hahn, Michael, and Kateryna Holzer. "Special Agreements and Energy: Filling the Gaps." In *Emerging Issues in Sustainable Development,* edited by Mitsuo Matsushita and Thomas J. Schoenbaum, 259-278. Japan: Springer, 2016.
- Henriksen, Anders. International Law. Oxford: Oxford University Press, 2019.
- Hobe, Stephan. "The Development of the Law of Aliens and the Emergence of General Principles of Protection under Public International Law." In *International Investment Law-A Handbook*, edited by Marc Bungenberg et al., 6-22. Oxford: C.H. Beck/Hart/Nomos, 2014.
- IRENA. Perspectives for the Energy Transition-Investment Needs for a Low Carbon Energy System. Bonn: IEA/IRENA, 2017.
- IRENA. Renewable Energy Prospects: Indonesia, a REmap analysis. Abu Dhabi:

- International Renewable Energy Agency, 2017.
- J. Vandevelde, Kenneth. *Bilateral Investment Treaties: History, Policy, and Interpretation.*Oxford: Oxford University Press, 2010.
- L. Karamanian, Susan. "International Energy Trade and Investor-State Arbitration: What Role for Sustainable
- Development?." In *Emerging Issues in Sustainable Development*, eds. Mitsuo Matsushita and Thomas J. Schoenbaum, 355-376. Japan: Springer, 2016.
- Leal-Arcas, Rafael, and Jan Wouters. "Introduction." In *Research Handbook on EU Energy Law and Policy*, edited by Rafael Leal-Arcas and Jan Wouters, 1-12. Cheltenham: Edward Elgar Publishing, 2017.
- Leal-Arcas, R., and V. Nalule. "Multilateral and Bilateral Energy Investment Treaties." In *Handbook of International Investment Law and Policy*, edited by Julien Chaisse, Leila Choukroune, and Sufian Jusoh, 2115-128. Singapore: Springer, 2021.
- Lesniewska, Feja. "Renewable Energy Waste Management and the Circular Economy in the EU: Solar PV and Wind Power." In *Research Handbook on EU Energy Law and Policy*, edited by Rafael Leal-Arcas and Jan Wouters, 460-68. Cheltenham: Edward Elgar Publishing, 2017.
- Levesque, Celine, and Andrew Newcombe. "The Evolution of IIA Practice in Canada and the United States." In *Improving International Investment Agreements*, edited by Armand de Mestral and Céline Lévesque, 25-41. New York: Routledge, 2013.
- Mohebi, Mohsen. "Evaluation of Damages in International Investment Arbitration: Appropriate Method." In *International Law in Motion-Some New Insights*, edited by Mohsen Mohebi et al., 131-164. Louvain-la-Neuve: PUL Presses, 2020.
- Montanaro, Francesco. "Article 14- Transfers Related to Investment." In *Commentary on the Energy Charter Treaty*, edited by Rafael Real-Arcas. Northampton, MA: Edward Elgar Publishing, 2018.
- Murase, Shinya. "Comments to Climate Change, Trade, and Investment Law. What Difference Would a Real Responsibility to Protect Make?." In *Emerging Issues in Sustainable Development*, edited by. Mitsuo Matsushita and Thomas J. Schoenbaum, 399-402. Japan: Springer, 2016.
- Nadakavukaren Schefer, Krista. "Climate Change, Trade, and Investment Law: What Difference Would a Real Responsibility to Protect Make?." In *Emerging Issues in Sustainable Development*, edited by Mitsuo Matsushita and Thomas J. Schoenbaum, 383-398. Japan: Springer, 2016.
- Ortino, Federico. *The Origin and Evolution of Investment Treaty Standards.* Oxford: Oxford University Press, 2019.
- Peter Berger, Klaus. *The Creeping Codification of the New Lex Mercatoria*. The Netherlands: Kluwer Law International, 2010.
- Reid, Hubert. *Dictionnaire de Droit Québécois et Canadien.* Montréal: Wilson & Lafleur, 2010.
- Rosert, Diana. The Stakes are High: A Review of the Financial Costs of Investment Treaty State Arbitration. Winnipeg, Manitoba: IISD, 2014.
- Sornarajah, M. . *The International Law on Foreign Investment*. Cambridge: Cambridge University Press, 2021.
- The World Bank Group and Asian Development Bank. *Climate Risk Profile: Indonesia.* Washington, DC: World Bank Publications, 2021.
- UNCTAD. Expropriation: A Sequel. Geneva: United Nations Publication, 2012.
- UNCTAD. World Investment Report 2010: Investing in a Low Carbon Economy. Geneva: United Nations Publication, 2010.

V. Timofeyev, Igor, et al. "Investment Disputes Involving the Renewable Energy Industry under the Energy Charter Treaty." In *The Guide to Energy Arbitrations*, edited by J. W. Rowley, Doak Bishop, and Gordon E. Kaiser, 45-70. London: Law Business Research, 2020.

Journal Articles

- A. Chinen, Mark. "The Standard of Compensation for Takings." *Minnesota Journal of International Law* 25, no. 2 (2016): 335-80.
- A. Nathanson, Rachel. "The Revocation of Clean-Energy Investment Economic-Support Systems as Indirect Expropriation Post-Nykomb: A Spanish Case Analysis." *Iowa Law Review* 98, no. 2 (2013): 863-904.
- Boute, Anatole. "Combating Climate Change Through Investment Arbitration." *Fordham International Law Journal* 35, no. 3 (2012): 613-64.
- J. Eagle, Steven. "The Four-Factor Penn Central Regulatory Takings Test." *Penn State Law Review* 118, no. 3 (2014): 601-46.
- Malakotipour, Maryam. "The Chilling Effect of Indirect Expropriation Clauses on Host States' Public Policies: a Call for a Legislative Response." *International Community Law Review* 22, no. 2 (2020): 235-70.
- Mohammadi, Pejman, Amir Moradpourshad, and Hojjat Mobayen. "Effects of Criminal Procedure Act 2014 in Possibility of Claiming Moral Damages and Loss of Profit in Legal System of Iran." *Journal of Private Law Research* 7, no. 24 (2018): 65-93.
- Mostafa, Ben. "The Sole Effects Doctrine, Police Powers and Indirect Expropriation under International Law." *Australian International Law Journal* 15, (2008): 267-96.
- Tienhaara, Kyla. "Unilateral Commitments to Investment Protection: Does the Promise of Stability Restrict Environmental Policy Development?." *Yearbook of International Environmental Law* 17, (2008): 139-167.
- Tienhaara, Kyla, and Christian Downie. "Risky Business? The Energy Charter Treaty, Renewable Energy, and Investor-State Disputes." *Global Governance* 24, no. 3 (2018): 451-71.
- Whitsitt, Elizabeth, and Nigel Bankes. "The Evolution of International Investment Law and Its Application to the Energy Sector." *Alberta Law Review* 51, no. 2 (2013): 207-47.
- Zikra, Muhammad, Suntoyo, and Lukijanto. "Climate Change Impacts on Indonesian Coastal Areas." *Procedia Earth and Planetary Science* 14, (2015): 57-63.

Websites

- Breton, Caroline, and Fernandez Antuna, Antolin. "Compensation Standards." Jus Mundi. Last modified September 20, 2021. https://jusmundi.com/en/document/wiki/en-compensation-standards.
- Chen, James. "Fair Market Value (FMV)," Investopedia. Last modified September 29, 2020. https://www.investopedia.com/terms/f/fairmarketvalue.asp.
- Costa, Guilherme Recena, and Fernandez Antuna, Antolin. "Compensation for Lawful Expropriation." Jus Mundi. Last modified September 20, 2021. https://jusmundi.com/en/document/wiki/en-compensation-for-lawful-expropriation.
- Investment Policy Hub. "Investment Dispute Settlement Navigator." Accessed September 18, 2021. https://investmentpolicy.unctad.org/investment-dispute-settlement.
- Kordvani, Amir, Deris, Mari. "International Arbitration Law and Rules in Iran." CMS, Last modified December 4, 2020. https://cms.law/en/int/expert-guides/cms-

- expert-guide-to-international-arbitration/iran.
- Lakhno, Veronika, and Duggal, Kabir. "Transfer." Jus Mundi. Last modified September 20, 2021. https://jusmundi.com/en/document/wiki/en-transfers.
- Lecompte, Etienne. "What You Need to Know About Renewable Energy Land Lease Management." Powerhub. Last modified July 4, 2019. https://powerhub.com/blog/what-you-need-to-know-about-renewable-energy-land-lease-management/.
- Jha, Vyoma. "Trends in Investor Claims Over Feed-in Tariffs for Renewable Energy." Investment treaty News: IISD. Last modified July 19, 2012. https://www.iisd.org/itn/fr/2012/07/19/trends-in-investor-claims-over-feed-in-tariffs-for-renewable-energy/#_edn2.
- PWC. "PwC's International Arbitration Damages Research." Last modified December 2017. https://www.pwc.co.uk/forensic-services/assets/pwc-international-arbitration-damages-research-2017.pdf.
- The Lex Mercatoria (Old and New) and the Translex Principles. "Trans-lex Law Research." accessed September 12, 2021. www.Trans-Lex.org/principles.
- Tujakowska, Anna, and Duggal, Kabir. "Valuation Methods." Jus Mundi. Last modified July 22. 2021, https://jusmundi.com/en/document/wiki/en-valuation-methods.