

Towards Sustainable Solutions: Advancing ESG metrics in the Renewable Energy Sector*

Hacia soluciones sostenibles: Métricas ASG en el sector de energías renovables

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ABSTRACT

The renewable energy sector is experiencing a seismic demand as stakeholders, sovereign wealth funds, and governments intensify pressure for transition from traditional fuel sources. Companies traditionally focused on fossil fuels are diversifying into renewables, drawn by decreasing costs and advancing technologies. However, the rapid expansion of renewable energy projects brings its own set of risks, tied to large-scale infrastructure and evolving regulatory landscapes. As the sector grows, disputes loom on the horizon. Stakeholders' ability to anticipate and manage these disputes becomes paramount for effective transition and risk mitigation. Disputes in renewable energy projects could impact different parties and stakeholders of a company's supply chain process. Notably, the critical and

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growing impact of climate change and the increasing influence of Environmental, Social, and Governance (ESG) standards set renewable energy projects apart from others. In this context, question if the existing dispute resolution mechanisms are tailored to renewable energy's unique challenges is essential. Specialized courts or tribunals well-versed in renewable energy law and dispute resolution can enhance these mechanisms, especially arbitration and mediation procedures. This paper argues that implementing these changes in the existing dispute resolution mechanisms ensures fairness, equity, and success in renewable energy projects, aligning them with the global mission to combat climate change. As Africa and Latin America are seen as key for the development of energy transition, all dispute resolution developments should be especially sensitive to these region's particularities to effectively meet sustainable solutions. Promoting a setting where disputes are efficiently resolved could contribute positively to the environmental crisis.

Keywords: climate change – social vulnerabilities – ESG standards – dispute resolution – international arbitration – renewable energy projects.

RESUMEN

El sector de las energías renovables está experimentando una demanda sísmica a medida que las partes interesadas, los fondos soberanos y los gobiernos intensifican la presión para la transición de las fuentes de combustible tradicionales. Las empresas tradicionalmente centradas en los combustibles fósiles se están diversificando hacia las energías renovables, atraídas por la disminución de los costos y el avance de las tecnologías. Sin embargo, la rápida expansión de los proyectos de energía renovable conlleva su propio conjunto de riesgos, vinculados a la infraestructura a gran escala y a la

evolución del panorama regulatorio. A medida que el sector crece, las disputas se vislumbran en el horizonte. La capacidad de las partes interesadas para anticipar y gestionar estas disputas se vuelve primordial para una transición efectiva y la mitigación de riesgos. Las disputas en proyectos de energía renovable podrían afectar a diferentes partes interesadas del proceso de la cadena de suministro de una empresa. En particular, el impacto crítico y creciente al cambio climático y la creciente influencia de los estándares ambientales, sociales y de gobernanza (ASG) diferencian a los proyectos de energía renovable de los demás. En este contexto, es esencial preguntarse si los mecanismos de resolución de disputas existentes se adaptan a los desafíos únicos de las energías renovables. Los juzgados o tribunales especializados en el derecho de las energías renovables y la resolución de controversias pueden mejorar estos mecanismos, especialmente los procedimientos de arbitraje y mediación. Este documento argumenta que la implementación de estos cambios en los mecanismos de resolución de disputas existentes garantiza la justicia, la equidad y el éxito en los proyectos de energía renovable, alineándolos con la misión global de combatir el cambio climático. Dado que África y América Latina se consideran clave para el desarrollo de la transición energética, todos los desarrollos en la resolución de disputas deben ser especialmente sensibles a las particularidades de esta región para encontrar soluciones sostenibles de manera efectiva. Promover un entorno en el que las controversias se resuelvan de manera eficiente podría contribuir positivamente a la crisis ambiental.

Palabras clave: cambio climático; vulnerabilidades sociales; estándares ASG; solución de controversias; arbitraje internacional; proyectos de energías renovables.

I. - INTRODUCTION

The global energy setting is undergoing a profound transformation. In the search of a global energy transition, the world is starting to see a seismic demand for renewable energy sources. Stakeholders, sovereign wealth funds, and governments worldwide are exerting huge pressure for a swift transition away from traditional fossil fuels toward sustainable alternatives. Scientists and other experts have been calling for urgent attention since the last century. The climate crisis, caused by a multifaceted set of situations mainly directed to human overconsumption habits, is setting on the agenda the urgency of adopting measures to deescalate the planet's deterioration process.

Not surprisingly, this call has prompted companies to start the conversation on the shift toward renewables. Nonetheless, the rapid expansion of renewable energy projects does not come without challenges. The monumental scale of infrastructure required, coupled with the ever-evolving regulatory frameworks, presents a fertile ground for disputes to emerge. As companies have started this conversation on the shift of a fossil-fuel based energy matrix to a renewable one, disputes loom on the horizon, underscoring the importance of stakeholders' ability to anticipate and effectively manage these conflicts to mitigate risks.

Indeed, disputes in renewable energy projects have the potential to echo across various parties and stakeholders within a company's supply chain, magnifying the need for proactive dispute resolution strategies. Yet, the critical and expanding impact of climate change, coupled with the escalating influence of Environmental, Social, and Governance (ESG) standards, sets renewable energy projects apart from conventional energy ventures.

As with other specialized disputes, we emphasize on the importance of an interdisciplinary approach, where dispute boards, tribunals, and mediators, among others, seek for a balance between tailor made contractual interpretations, while guaranteeing a technical approach that sets a reference for future sustainable projects including incorporating ESG standards. This paper does not imply that tribunals need to be dramatically different from other specialized fora, rather, this specialization might need to come from an openness to address these issues with an interdisciplinary perspective.

Furthermore, in this context, as Africa and Latin America emerge as pivotal players in the global energy transition, it is imperative that all developments in dispute resolution mechanisms remain acutely adjusted to the particularities of these regions. Again, this will imply a multilayered and interdisciplinary approach by tribunals. This, of course, does not come free of challenges, especially given the nature of the parties involved, industries and sectors where most renewable energy projects are being developed, they seek for confidentiality, and even the nature of these contractual mechanisms.

To start our reflection on these issues, in the subsequent sections, we will: first, set a basic background of how energy transition projects interact with the climate environmental crisis, especially climate change; second, discuss the role of ESG standards, setting some remarks and its evolution from merely soft law; third, reflect on the types of disputes that might happen when addressing and enforcing ESG standards, with a particular emphasis on the interplay between contractual instruments and dispute resolution mechanisms within the context of renewable energy projects; fourth, describe some of the elements that places Africa and the Latin American and Caribbean region (“LAC”) as key regions for the energy

transition processes; and finally, set some conclusions. Through this analysis, we aim to set some of our insights regarding the path forward for effective and equitable dispute resolution in the ever-evolving realm of renewable energy.

II. BACKGROUND ON CLIMATE CHANGE AND SOCIAL (UN)SUSTAINABILITY

The renewable energy sector could play an essential role in mitigating climate change and addressing social concerns globally. This subsection explores how renewable energy projects intersect with these issues and sets the stage for understanding some of their implications within the framework of dispute resolution mechanisms.

Renewable energy technologies, including solar, wind, hydroelectric, and geothermal power, seem to be less harmful to the environment, as their greenhouse gas emissions are much lower than those compared to traditional fossil fuel sources (Edenhofer et al., 2011). For instance, solar and wind power generation facilities are increasingly cost-effective and scalable, offering reliable alternatives that help countries meet their emission reduction targets set under international agreements such as the Paris Agreement (Olabi et al., 2023; UNFCCC, 2015). As explained by other authors, renewable energy is often seen as an improvement for the environment, while many of its impacts remain under studied (Farghali et al., 2023)

Moreover, the renewable energy sector fosters various social and economic benefits. These include job creation, particularly in rural and vulnerable communities where renewable energy projects are often located (IRENA, 2022). Furthermore, renewable energy infrastructure could improve local air quality and reduce health risks associated with conventional energy sources, enhancing public health outcomes (E. Erickson et al., 2017).

However, these projects face several challenges. These may involve conflicts over land use, environmental impacts on biodiversity, and community concerns regarding project siting and operation (IRENA, 2022). Addressing these disputes is crucial to ensuring sustainable project development and maintaining positive relationships with stakeholders.

Although it does not pretend to be exhaustive, in this section we describe some key elements for understanding the environmental and social crises the world faces, emphasizing the interplay between renewable energy development, climate and social concerns, and dispute resolution. After all, a specialized and interdisciplinary approach in the prevention and resolution of these disputes requires that different stakeholders implied in the drafting, interpretation, execution and resolution of the legal instruments for renewable energy and other ESG-related projects are willing to establish an open and humble conversation with specialists from other disciplines (i.e., biology, physics, engineering, social sciences, etc.).

This means that to truly understand and, possibly, resolve the issues behind these disputes, it will no longer be enough for legal operators to limit their analysis to a purely normative and legal one where the interaction between law and science, for instance, is seen as remote or unnecessary, as well as understanding that all these global issues (environmental and social challenges) actually are deeply intertwined (IPCC, 2022). The following subsection is, therefore, an intend to contribute to the reflection around these challenges.

2.1. Climate change

Climate change stands as one of the most pressing challenges of our era, highlighting the delicate interplay between human

activities and the Earth's natural systems. It represents one of the defining challenges of the 21st century, driven primarily by anthropogenic activities that have significantly altered the Earth's natural systems. Scientific consensus has demonstrated that our planet is undergoing unprecedented shifts in climate patterns, driven primarily by anthropogenic factors (Hossain, 2023). In fact, scientists underscore that the accumulation of greenhouse gases, such as carbon dioxide and methane, in the atmosphere are the chief drivers of global warming (Manabe, 2019).

The ramifications of climate change extend far beyond mere temperature fluctuations. Its consequences are profound and multifaceted, affecting terrestrial, freshwater, and marine ecosystems with escalating severity (Alamgir & Shan, 2023). High-confidence assessments reveal widespread ecosystem degradation, including the irreversible loss of biodiversity and ecosystem resilience (Shivanna, 2022). Species are shifting polewards or to higher elevations in response to changing climatic conditions, while extreme weather events and heatwaves have induced mass mortality events and contributed to the decline of critical habitats such as kelp forests (Smith et al., 2023).

At its core, climate change results from the accumulation of greenhouse gases, such as carbon dioxide and methane, in the atmosphere (Jain, 2003; 1993; Cassia et al., 2018). The heightened concentration of these gases intensifies the natural greenhouse effect, leading to global warming and a cascade of climatic alterations that, as we know, has different impacts on especially vulnerable populations (i.e. women, children, island-based populations, etc.) (Ngcamu, 2023).

At a social scale, climate change exacerbates existing vulnerabilities, disproportionately impacting marginalized commu-

nities, and exacerbating inequalities (Ngcamu, 2023). Extreme weather events, rising sea levels, and disruptions to agriculture disrupt livelihoods, trigger displacement, and strain resources. At the same time, the environmental fallout, from biodiversity loss to deforestation, amplifies the fragility of ecosystems essential for human survival (Butler, 2018).

Particularly, challenges associated with climate change are manifold, encompassing socioeconomic impacts that disproportionately affect vulnerable populations. Communities reliant on fragile ecosystems face heightened risks of displacement, loss of livelihoods, and food insecurity due to climate-induced disruptions in agriculture and water availability. Moreover, the retreat of glaciers and thawing permafrost are altering hydrological regimes and exacerbating risks associated with natural hazards, particularly in mountainous and Arctic regions (IPCC, 2023).

As seen, climate change exacerbates existing vulnerabilities of certain populations by amplifying the impact of environmental stressors, disproportionately affecting those who are already marginalized or lacking resources (Ngcamu, 2023). Although there are many approaches to understanding this interaction, we could stress at least three of them: (i) geographical; (ii) social, (iii) and economical vulnerabilities for these populations.

For instance, geographical vulnerabilities require understanding that small islands, and low-lying coastal regions are more susceptible to rising sea levels and extreme weather events caused by climate change (Kelman, 2014). Populations in these areas, often with limited resources, face increased risks of displacement, loss of livelihoods, and inadequate infrastructure. This also means that populations residing in these areas are disproportionately affected by the increased frequency and

severity of “natural disasters” such as hurricanes, floods, or wildfires (Scandurra et al., 2018).

Also, populations in arid or semi-arid regions face increased water scarcity due to changing precipitation patterns. Thus, lack of access to clean water is a significant vulnerability, affecting health, sanitation, and overall well-being, with the most severe impact felt by impoverished communities (Chen et al., 2020; Yadad & Lal, 2018). As seen before, these are often marginalized communities with limited resources and inadequate infrastructure, which turns this geographical vulnerability into other social, health, and economical challenges that make extremely difficult for these populations to cope with and recover from disasters (Yadad & Lal, 2018).

Social vulnerability can be seen in different ways. For instance, the impact of climate change on communities (i.e., indigenous, afro-descendent) can disrupt traditional ways of life and threaten the cultural heritage of these populations (Sesana et al., 2021). Although impacts of climate change on these communities depend on the specific ecosystem they live in and their cultural practices, climate change-induced alterations to these ecosystems, such as deforestation or changes in precipitation will likely cause a disruption on their living practices (Fatoric & Biesbroek, 2020).

As part of the most vulnerable populations, women are, without doubt, especially vulnerable to climate change impacts. Changes in temperature and precipitation patterns can contribute to the spread of diseases, affecting maternal and child health (Desai & Zhang, 2021). Also, as women are often responsible for securing water and food for their families, water scarcity and disruptions to agriculture increases their workload and vulnerability to displacement by climate-induced

events, such as floods, storms, or rising sea levels (Agrawal et al., 2023). This taking a side impacts on health, reproductive and sexual rights, education, and security issues women must face every day.

Moreover, climate change's consequences heighten economic disparities. The costs of adapting to and recovering from climate-related disasters disproportionately burden vulnerable populations. Lack of financial resources hinders their ability to implement resilience measures or rebuild after environmental shocks (Pinto et al., 2023). Also, climate change has a direct impact on agriculture processes and food security, especially on those living in developing countries (Dasgupta & Robinson, 2022).

This discussion shows that the urgency of addressing climate change lies not only in mitigating its immediate effects, but also in recognizing its links to broader global crises. The nexus between climate change, social justice, and environmental degradation requires a holistic understanding, as solutions demand collaborative, interdisciplinary approaches and, it is imperative to break down the differential impacts it has. After all, these impacts should be considered to understand the roots and particularities of environmental, social and governance issues that evolve into disputes and therefore, there is a need as well to understand whether the existing disputes mechanism and their applicable rules can address these issues.

2.2. Social challenges

Although the attention is usually focused on the environmental challenges, especially from the climate crisis perspective, facing social and economic challenges is equally imperative in today's world. These challenges range from income inequality,

poverty, discrimination (Hujó, 2021), gender inequality (OECD, 2008), mental health concerns (Lawrence et al., 2022), and human rights violations (Boyle, 2020). For instance, income inequality and poverty remain persistent global issues, with millions of individuals and communities struggling with the daily realities of economic hardship and social exclusion (Seipel, 2003).

Furthermore, social justice and human rights violations continue to perpetuate discrimination, oppression, and violence against marginalized and vulnerable groups. Access to education and healthcare remains a key determinant of social mobility and economic prosperity, yet disparities in access persist, particularly in marginalized and underserved communities (Gostin, 2014). Also, gender inequality and women's empowerment remain significant challenges in many parts of the world, limiting opportunities for women and girls to fully participate in economic, political, and social life (United Nations, 2014).

As seen before, in addition to these social challenges, environmental justice and climate change impacts pose significant threats to human rights, livelihoods, and well-being, particularly for marginalized communities and vulnerable populations (Yip, 2022). Addressing environmental justice concerns and mitigating the impacts of climate change are imperative for protecting human rights, safeguarding livelihoods, and promoting resilience in the face of environmental challenges.

After all, addressing these social challenges is not only a moral imperative but also essential for promoting social stability, reducing social tensions, and fostering inclusive economic growth. It is important to highlight that, when addressing them, it will be essential to have an interdisciplinary approach. In this context, organizations have a responsibility to play their part in

alleviating poverty, addressing inequalities and discrimination, as well as creating opportunities for socio-economic advancement (Song et al., 2022)

III. ESG STANDARDS

Considering these global challenges, there seems to be no doubt that in today's world organizations have a huge responsibility to reduce their environmental footprint, support climate resilience efforts, advocate for policies that address the root causes of environmental injustice, seek for social justice, and protect human rights. It is, therefore, in this context that environmental, social and governance ("ESG") standards have evolved over time as a response to these challenges.

ESG standards emerged prominently in 2005 with the publication of the landmark UN report 'Who Cares Wins'. Initially perceived as soft-law guidelines, ESG standards have evolved significantly, now influencing global financial markets and regulatory frameworks (Rouen et al., 2022). By 2020, ESG-related financial assets surpassed \$35 trillion, underscoring their pivotal role in shaping corporate sustainability practices worldwide (Kostic & Hujdur, 2023).

Certainly, ESG standards have undergone a notable shift from voluntary guidelines to potentially binding regulations. This transition reflects growing recognition of the need for enforceable frameworks to address environmental degradation, social inequalities, and corporate governance failures. International efforts, including those stemming from the United Nations and regional bodies like the European Union, have played a crucial role in advancing ESG standards into the realm of hard law (UNEP FI, 2021).

The international community has made concerted efforts to codify ESG standards and principles into enforceable laws. The European Union (“EU”) has been at the forefront, proposing directives such as the Corporate Sustainability Due Diligence Directive to mandate corporate reporting on ESG factors across their supply chains. This legislative approach aims to enhance transparency, accountability, and risk management practices among corporations operating within and outside the EU (Bernoville, 2024; European Commission, 2021).

In fact, the importance of ESG standards is also highlighted by the evolving shift of companies towards adopting them in mechanisms that make them enforceable. These standards are designed to evaluate the sustainability and ethical impact of a business beyond traditional financial metrics (Martini, 2021). This transition is driven by numerous factors, each contributing to the growing recognition of the significance of ESG standard considerations in corporate governance and operations.

Companies recognize the imperative of adapting to changing market dynamics, stakeholder expectations, and regulatory landscapes. Integrating ESG standards into business strategies enables companies to mitigate risks associated with environmental, social, and governance factors, enhance long-term resilience, and capitalize on emerging opportunities in sustainable markets (Meng et al., 2023).

For instance, companies increasingly prioritize ESG standards to enhance their reputation and credibility in the market (Meng et al., 2023). Adhering to ESG standards signals a commitment to sustainability, social responsibility, and ethical business practices, reinforcing investor confidence, attracting socially responsible investors, and strengthening loyalty among its consumers (Rounok et al., 2023).

Also, regulatory requirements in certain jurisdictions create incentives (i.e. tax benefits, subsidies, grants, and preferential treatment in procurement processes) and compel companies to integrate ESG standards into their operations and contractual arrangements (Ahmad et al., 2023). Governments worldwide are implementing measures to address environmental degradation, social inequalities, and corporate governance failures, imposing reporting obligations, disclosure requirements, and compliance standards related to ESG issues (Pelissero, 2022).

Moreover, ESG standards and Sustainable Development Goals (“SDGs”) share a common objective of promoting sustainable and responsible business practices. The relation between ESG standards and SDGs is multifaceted, with ESG standards often seen as a practical means to contribute to and achieve the broader sustainable development agenda outlined by the United Nations (Delgado-Ceballos et al., 2023). In fact, ESG standards often align with specific themes addressed by the SDGs.

For example, ESG standards related to environmental practices contribute to SDG 13 (climate action), while social considerations align with goals like SDG 3 (good health and well-being) and SDG 8 (decent work and economic growth). Companies using ESG standards in their reporting often incorporate the SDGs to demonstrate how their activities contribute to broader societal goals (Urbieta, 2024). This integrated reporting approach helps stakeholders understand the company’s impact on sustainable development. Investors increasingly consider ESG factors when making investment decisions. Aligning investments with the SDGs is a way for investors to support projects and companies contributing directly to global sustainable development objectives.

Nevertheless, ESG standards have profound implications for the renewable energy sector, where environmental sustainability and social responsibility are paramount. Stakeholders in this sector face increasing pressure to adhere to stringent ESG criteria to secure financing, maintain public trust, and mitigate operational risks (Kulova & Nikolova-Alexieva, 2023). The adoption of international ESG standards presents both opportunities and challenges. While alignment with global norms enhances credibility and market access, it also exposes firms to risks such as greenwashing—where companies mislead stakeholders about their environmental credentials (Ghitti et al., 2023).

In a practical sense, institutional investors, asset managers, and shareholders exert pressure on companies to prioritize ESG considerations in decision-making processes. Increasingly, investors incorporate ESG criteria into investment analyses, portfolio construction, and engagement strategies, driving demand for transparent ESG disclosures, performance metrics, and accountability mechanisms from companies.

Embracing ESG standards is recognized as a strategy for long-term value creation and sustainable growth (Chakravarty et al., 2022). Companies that effectively manage environmental risks, uphold social values, and maintain strong governance structures are better positioned to attract investment capital, mitigate financial liabilities, foster innovation, and seize competitive advantages in evolving markets (Chakravarty et al., 2022).

In addition, businesses recognize the evolving nature of industries and acknowledge the importance of adapting to changing societal expectations and regulatory requirements. Integrating ESG standards into contracts reflects an initiative-taking approach to addressing environmental and social

challenges and staying competitive in the market (Junius et al., 2020). After all, companies use ESG standards and agree to include them in contracts to enhance their reputation and demonstrate commitment to sustainability (Liu, 2022). Compliance with ESG standards can enhance public perception, attract socially responsible investors, and mitigate reputational risks associated with environmental or social controversies (Pursele, 2023).

The debate over ESG standards in the energy industry reflects broader discussions on balancing economic imperatives with environmental stewardship. Regulatory compliance entails costs associated with monitoring, reporting, and implementing sustainable practices. However, proactive ESG strategies can also unlock competitive advantages, attract socially responsible investors, and foster long-term resilience against regulatory changes and reputational risks (Eyko, 2023; European Commission, 2021).

In summary, the shift towards adopting enforceable ESG standards reflects a multifaceted response to market dynamics, regulatory pressures, stakeholder expectations, and strategic imperatives. Companies recognize the intrinsic link between sustainable business practices, financial performance, and stakeholder value, driving the integration of ESG considerations into contractual mechanisms and corporate governance frameworks. As the global business landscape evolves, embracing ESG standards becomes not only a moral imperative but also a strategic imperative for companies seeking to thrive in a sustainable and responsible manner.

3.1. In-depth Analysis of ESG Clauses: Content, Responsibilities, Implementation, and Enforcement

To conduct a thorough analysis of ESG clauses, it is important to delve into several key aspects in terms of formalities, including content, responsibilities, implementation, and enforcement in this type of clauses.

These clauses generally aim to enforce reporting and transparency regarding ESG issues, including setting goals such as plans for a net-zero transition or maintaining a minimum ESG sustainability rating throughout the contract term. They typically manifest as due diligence obligations, compliance requirements, monitoring and reporting duties, warranties and indemnities. Additionally, they may specify the consequences of failing to meet ESG obligations, such as initiating a remediation process, contract termination, or paying damages for breaches. Each type of clause will be examined below, with examples from widely used model clauses and other practical instances (International Bar Association, 2023, p. 10).

Firstly, in common Corporate Social Responsibility clauses, apart from requiring the supplier to comply with relevant laws, these clauses refer to two types of instruments: internal standards -such as codes of conduct, policies, and ethical charters - and external instruments (like the Global Compact, ILO conventions, OECD guidelines, ISO 26000, etc.). Integrating these non-contractual standards into the contract makes them enforceable (Sustainability Clauses in Commercial Contracts, 2018). Additionally, there is no universal formula for determining the specific ESG clauses that should be included in a contract. Typically, the selection of these clauses is tailored to the nature of the product or service being provided and the industry of the client (Curtis, 2024). Therefore, ESG clauses

might address various issues such as preventing modern slavery, combating bribery and money laundering, managing greenhouse gas emissions, setting net-zero targets, and implementing waste disposal practices.

For instance, environmental clauses might require compliance with regulations on waste management, carbon emissions, and resource usage (Kolk, 2016). Social clauses often cover labor practices, human rights, and community engagement (García-Sánchez et al., 2019). Governance clauses may address issues such as anti-corruption measures, board diversity, and transparency (Eccles & Klimenko, 2019). The content of these clauses is crucial in defining the expectations and requirements for ESG performance and ensuring that these are integrated into the core operations and strategic objectives of the parties involved.

Secondly, the implementation of these clauses implies that the supplier make formal commitments, essentially promising to adhere to specific ESG standards throughout the duration of the contract (CMS Law, 2024). For instance, a contract related to the disposal of hazardous materials might include a clause stating:

“The Supplier agrees to follow all relevant environmental regulations, particularly concerning waste management and the handling of hazardous substances”.

Other clauses might mandate that the supplier regularly report on ESG-related progress after the contract has begun. For example, a clause requiring updates on greenhouse gas emissions reduction could specify:

“Within thirty days of the Contract Date, the Supplier must provide a reliable GHG Emissions Reduction Plan to the Customer. Additionally, the Supplier is obligated to furnish progress reports, as requested by the Customer, detailing the implementation and effectiveness of the company’s Emissions Reduction Plan throughout the contract period”.

In long-term contracts, ESG clauses may require regular reaffirmations of the supplier’s commitments. For instance, a clause might mandate that annually, on the anniversary of the Contract Date, the supplier provide a report to the Customer that covers greenhouse gas emissions for the past year, including any changes from previous reports, the amount of waste generated, and the methods used for waste disposal. This shows that ESG clauses can vary significantly in their content and format. Consequently, companies and other governmental organizations need to carefully evaluate the duration, value, and nature of the contract to select the most appropriate ESG clauses. Additionally, because many ESG clauses lack standardization, they must be drafted with clarity to ensure that the supplier’s obligations are well-defined and the consequences for any breaches are clearly outlined (Curtis, 2024).

Effective implementation of ESG clauses requires integrating these standards into operational processes and management systems. Implementation strategies might include setting up dedicated teams or roles responsible for ESG compliance, developing internal policies and procedures, and incorporating ESG considerations into decision-making processes (Sullivan & Mackenzie, 2017). For example, companies might establish sustainability committees or hire ESG officers to oversee the adherence to environmental and social standards (Ioannou & Serafeim, 2012). Furthermore, practical implementation involves training employees, developing monitoring systems, and

using performance metrics to track progress (Kotsantonis et al., 2016). Essentially, ensuring that ESG clauses are effectively implemented is crucial for achieving the intended outcomes and maintaining compliance with the agreed-upon standards.

Thirdly, the responsibilities outlined in ESG clauses are vital for clarifying the roles and obligations of each party in upholding ESG standards. Typically, these clauses designate specific responsibilities to each party, such as the obligation to adhere to environmental regulations, implement social programs, and maintain governance structures that promote transparency and accountability (Cheng et al., 2014). Additionally, the responsibilities might include periodic reporting on ESG performance, conducting impact assessments, and engaging with stakeholders to address ESG-related concerns (Luo et al., 2015).

Fourthly, the enforcement mechanisms are crucial for ensuring compliance with ESG clauses and addressing any breaches or non-conformance. These mechanisms often include regular audits, performance reviews, and the imposition of penalties or sanctions for non-compliance (Hess, 2014). Contracts may specify the processes for conducting audits, the frequency of reporting, and the criteria for evaluating ESG performance (Grewal & Serafeim, 2018). Additionally, enforcement might involve setting up dispute resolution mechanisms, such as mediation or arbitration, to address conflicts related to ESG compliance as mentioned previously.

If a company does not fulfill its ESG commitments, it could face major reputational and contractual consequences. For example, if a company unintentionally fails to meet its ESG obligations due to issues in its supply chain, it might lose the contract with a customer or face even more severe repercussions (Curtis, 2024). Therefore, it is crucial for the ESG clauses to be

enforceable and impactful. It is advisable to incorporate provisions for continuous audits and risk mitigation measures, such as indemnities and requirements for specific performance, along with rights to terminate the agreement in case of an ESG breach.

The rise in ESG-related disputes, particularly within the renewable energy sector, can be traced to several key issues, including greenwashing, breaches of contractual mechanisms, and infringements of international instruments. Greenwashing, for instance, as the practice of making misleading claims about the environmental benefits of a product or practice, has become a significant source of litigation. Companies accused of greenwashing may face lawsuits from consumers, investors, and regulators who argue that they were deceived by false or exaggerated environmental claims. These disputes not only damage a company's reputation but also result in financial penalties and increased scrutiny from regulatory bodies.

In fact, in response to this issue, the European Union has introduced a verification system for environmental claims, which requires companies to submit evidence and obtain pre-approval from assigned verifiers before making such claims. This directive, adopted in March 2024, aims to curb greenwashing and ensure transparency and accountability (Ansip & Engerer, 2024).

Similarly, breaches of contractual mechanisms designed to ensure compliance with ESG standards are a common cause of disputes in renewable energy projects. As will be explained further, contracts in this sector often include specific ESG-related clauses, such as requirements for sustainable sourcing, carbon emission reductions, and adherence to labor rights. When companies fail to meet these obligations, they can be sued by their business partners, investors, or even employees. These disputes

can lead to costly litigation, project delays, and the potential termination of contracts, thereby impacting the financial and operational stability of the parties that are involved (Hay, 2022).

Infringements of international instruments and agreements also play a crucial role in ESG and renewable energy disputes. As countries and international organizations increasingly incorporate ESG standards into binding agreements, companies are held accountable for their compliance with these regulations. Violations can result in disputes brought before international arbitration tribunals or domestic courts. For instance, failure to adhere to the Paris Agreement's carbon reduction targets or the UN Guiding Principles on Business and Human Rights can trigger legal actions from governments, NGOs, and affected communities. These disputes highlight the growing legal risks associated with international ESG commitments and underscore the importance of robust compliance mechanisms in mitigating such risks.

As previously seen, until recently, ESG standards remained as plain-vanilla soft law for many businesses (Peeters & Van Genechten, 2023). Although, there is still not much enforceability of them in some jurisdictions (Latham & Watkins; WBCSD, 2020), ESG standards have started to be at the center of some companies' conversations. Although further analyses will be needed to understand other roots of ESG and renewable energy disputes, in this article we focus on breaches of contractual clauses, especially through three of these mechanisms: (i) supply contracts, (ii) share and purchase agreements; and (iii) loan agreements.

On the one hand, supply contracts are a common mechanism for incorporating ESG standards, particularly in industries with significant environmental footprints such as manufactu-

ring, agriculture, and extractive industries (Vandenburgh & Moore, 2022). These contracts may include provisions requiring suppliers to adhere to specific environmental practices, such as reducing greenhouse gas emissions, using sustainable materials, or implementing waste management protocols. Also, these provisions, oblige companies to report and provide evidence of compliance with relevant ESG performance metrics, and to provide environmental and climate change warranties.

Furthermore, in mergers and acquisitions transactions, share and sale purchase agreements (“SPAs”) often include clauses related to environmental due diligence and warranties by targets (i.e., adoption of adequate ESG policies) (Gottret, 2023). Sellers may be required to provide warranties regarding compliance with environmental regulations, contamination of assets, or pending environmental litigation. Buyers may also include provisions obligating the seller to indemnify them for any environmental liabilities discovered post-transaction.

For instance, a company looking for a specific environmental and climate change warranty from a supplier might include a clause that mentions ISO 14001- which specifies the requirements for an environmental management system that an organization can use the following wording to enhance its environmental performance- such as:

“The Supplier guarantees that it has an environmental management system certified to ISO 14001 or an equivalent standard by a UKAS accredited body, and it will comply with and maintain these certification requirements for the duration of the contract” (International Bar Association, 2023, p. 11).

Third, loan agreements increasingly incorporate ESG standards as part of lending criteria. Financial institutions may

require borrowers to demonstrate compliance with specific ESG metrics or commit to sustainability targets as a condition of financing (Fox & Porter, 2023). These agreements may include provisions requiring borrowers to provide regular ESG-related disclosures or reports to lenders (Richardsson, 2023). As for supply contracts and SPAs, most of these contracts are generated within the construction, energy, and oil & gas industries. In project finance and corporate loan agreements, financiers following the Equator Principles may require clients to agree in financial documents to submit compliance reports. These reports should be provided at least annually, or more frequently depending on the severity of the impacts or legal requirements:

“The reports must: (i) demonstrate compliance with the Environmental and Social Management Plan and the Equator Principles Action Plan, if applicable, and (ii) confirm adherence to relevant environmental and social laws, regulations, and permits at local, state, and host country levels” (Equator Principles, EP4, July 2020, p 14.)

The inclusion of ESG standards in international commercial contracts such as loan agreements, SPAs and supply contracts, can give rise to various disputes, which may involve, among others, interpretation, enforcement, or non-compliance issues (Gardner & Kendra, 2023). Although these disputes will vary depending on the parties involved, the type of contract and the specific provisions and mechanisms that incorporated the ESG standards, here we focus on some of the most common claims that could arise from this type of disputes: (i) breach of the contract; (ii) misrepresentations and/or lack of transparency and disclosure; and (iii) indemnification (IBA, 2023).

Breach of the contract

Disputes may arise if one party fails to meet its obligations under the contract related to ESG standards. For example, a supplier may fail to comply with agreed-upon sustainability practices, leading to claims for breach of contract. Also, lenders or counterparties may initiate disputes if borrowers or suppliers fail to comply with ESG standards or sustainability targets specified in loan agreements or supply contracts. Non-compliance may result in financial penalties, termination of agreements, or reputational damage for the non-compliant party (IBA, 2023).

Misrepresentations and/or lack of transparency or disclosure

Parties may dispute allegations of misrepresentation or non-disclosure regarding environmental matters during the negotiation or execution of the contract (Park-Weir et al., 2023). If one party provides false or incomplete information about its environmental practices or liabilities, the other party may seek remedies for misrepresentation or rescission of the contract.

Indemnification

In share and sale purchase agreements, disputes may arise over indemnification provisions related to environmental liabilities (Nowak et al., 2023). If environmental issues are discovered post-transaction, parties may disagree on the extent of indemnification obligations or the allocation of responsibility for remediation costs.

Beyond the challenges that might arise from the interpretation of these provisions, another aspect that should be considered is the interaction between the private and public sector (IRENA, 2019). Many of these projects involve State investment

given their magnitude and materiality for the country. In fact, international investment in the energy sector accounts for a large percentage of global investment.

As a result, disputes in the energy sector constitute one of the broadest portfolios of trade and investment disputes. Disputes relating to the energy sector may arise between two States, between two private companies, or between a private company and a State or State agency. Besides, this could involve further questions such as the extent to which the project is covered by the protection of international investment law.

A few bilateral and multilateral treaties exist to protect investments from non-commercial risks. Also, these disputes raise fundamental questions, particularly in relation to the need for investment protection, on the one hand, and the right of the host State to regulate, on the other. In addition, States may also refer to human rights standards, such as the right to clean air and the right of access to safe drinking water.

The energy sector is historically highly regulated (Necoechea-Porrás et al., 2021). For years, states and state-owned enterprises had a monopoly on energy extraction and supply. While new opportunities have emerged through privatization programs, states maintain a significant degree of participation in energy projects, and particularly in Latin America (Kieffer et al., 2016). States should also note that arbitration is many times the preferred method of dispute resolution in the energy industry (Martin, 2011). Arbitration might be seen as a dispute mechanism that provides party autonomy, access to a neutral forum, flexibility, confidentiality, the ability to choose arbitrators with the necessary expertise, etc.

State's public policy should try to be aware of these complexities. For example, in arbitration a common problem is the consolidation of multiparty transactions into complex construction contracts and risk-sharing agreements. In those cases, multiple arbitrations, involving the same or similar facts and legal issues, may take place and it may be challenging for arbitrators to consolidate multiple arbitrations without the consent of the parties involved.

Arbitration and expert determination clauses may be ambiguous, creating difficulties as to the scope of the powers of the arbitral tribunal and the expert. It is not a task that is within everyone's reach because it requires legal knowledge ranging from public to private law, including unique international business practices and a considerable range of technical elements not developed by jurists that require knowledge that is uncommon in the legal environment.

Above all, it is necessary to understand the process in which dispute resolution is carried out. For instance, mediation is a structured process aimed at achieving a consensual resolution of a private (civil or commercial) dispute. In this process, the parties involved retain the authority to resolve the matter "in good faith and with commercial responsibility," with the support of a third-party mediator. This mediator is a suitable and impartial individual who facilitates the negotiation (Vertoudos, 2023, p. 2). Mediation is founded on the principles of confidentiality and private autonomy. Its scope is quite broad, limited only by considerations of morality and public order, and the procedure re-mains flexible and non-binding until the parties reach an agreement (Articles 2 par.1,2 & 3, 3 par.1, 5 par.3-5, 12-15, Law 4640/2019).

Litigation in this particular context is perceived as a dispute resolution mechanism where material issues of law are raised before a third – usually called judge- (Markell & Ruhl, 2012, p. 27). Due to countries recognizing by law climate rights and have adhered to international agreements (such as the Escazu Agreement or the Paris Agreement in certain countries of Latin America), it is possible for them to play an important role in environmental obligations and duties. However, when ESG disclosures are false, misleading, or unverified, companies can be held liable for causing financial harm to investors. As a result, firms that engage in “green washing” increase their susceptibility to litigation from investors (Edgeworth & Kelly, 2024).

For instance, in Latin America there are certain cases such as *PSB et al. v. Brazil Case* and the *Peña, et al. v. Republic of Colombia, et al Case*. From one hand, Brazilian political parties filed a constitutional action against the federal government before the Brazil Supreme Court, alleging mismanagement of the *Fundo Clima*, a fund for reducing green-house gas emissions (Brazil, Constitutional Action (ADPF) No. 708, Reporting Justice Barroso, Brazilian Supreme Court, 2022). The plaintiffs argued that the government’s actions violated constitutional duties, as well as the Paris Agreement. The Supreme Court ruled in favor of the plaintiffs, recognizing the government’s failure to allocate sufficient resources and affirming the Paris Agreement’s priority in Brazilian law. The Court mandated that the executive branch must provide necessary resources to support *Fundo Clima*’s climate mitigation goals (Global Climate Litigation Report: 2020 Status Review, 2021). Within this scenario, investment arbitration can serve as a powerful dispute resolution mechanism, with international arbitrators qualified to determine whether states are liable to investors regarding environmental measures (Llano, Jijón, & Coulet-Diaz, 2023).

Nevertheless, as it offers benefits for resolving ESG disputes, it also faces criticisms regarding its appropriateness. Some authors highlight a potential resource imbalance between parties in ESG-related investment arbitrations. They claim a possible lack of sufficient transparency standards in arbitration proceedings, especially commercial ones involving public interest, as significant drawbacks that make arbitration unsuitable for resolving ESG disputes (Márquez, 2023). When incorporating ESG provisions into their agreements, shareholders may face counterclaims and potential conflicts of interest.

Some ISDS cases, such as the ongoing *Vulcan v. Mexico* case, illustrate this challenge, where Mexico argues that the tribunal has jurisdiction over its counterclaims related to breaches of environmental norms (*Legacy Vulcan LLC v. United Mexican States*, 2022; *Perenco Ecuador Limited v. República del Ecuador*, 2019). As noted by the tribunal in *Iberdrola Energía S.A. v. República de Guatemala II*, the tribunal's jurisdiction over a state's counterclaim under an investment treaty depends on the treaty's dispute resolution provisions, the nature of the counterclaim, and its connection to the arbitration claims. In response to the growing demand for ESG related disputes, some arbitral institutions have developed or issued sector specific rules (*Iberdrola Energía, S.A. v. The Republic of Guatemala*, 2020).

Analysis of Relevant Cases and Legal Frameworks

The ICC Commission Report about Resolving Climate Change Related Disputes through Arbitration and ADR identifies several significant cases where arbitration has been instrumental in resolving climate change-related disputes.

One notable case is *Urgenda Foundation v. The State of the Netherlands*. In this landmark case, the Hague District Court

ruled that the Dutch government must reduce its greenhouse gas emissions by at least 25% by the end of 2020 compared to 1990 levels. This decision, upheld on appeal, sets a precedent for holding governments accountable for climate commitments through judicial means (ICC, 2019). This case exemplifies involved cases aimed at mandating or altering climate-related policies or conduct. These disputes are often pursued by NGOs, pressure groups, or governmental authorities against governments and/or corporations. The Urgenda highlights the critical role of national courts in these disputes since they could influence compliance with regulatory standards, aspects related to corporate governance, and consumer protection related to climate risks (Norton Rose Fulbright, 2021).

Another critical case is Asghar Leghari v. Federation of Pakistan. Here, the Lahore High Court of Pakistan ruled in favor of a farmer who claimed that the government's inaction on climate change violated his fundamental rights. The court mandated the establishment of a Climate Change Commission to monitor and implement climate policies. This case underscores the potential of national courts to address climate related grievances and enforce governmental accountability (ICC, 2019). In *Future Generations v. Ministry of the Environment and Others*, the Supreme Court of Colombia ordered the government to develop action plans to protect the Amazon rainforest, emphasizing the rights of future generations to a healthy environment. This case demonstrates how environmental protection can be pursued through judicial avenues, reinforcing the role of legal systems in advancing climate action (ICC, 2019).

Lastly, the *Plan B Earth and Others v. The Secretary of State for Business, Energy, and Industrial Strategy* case in the UK High Court highlighted the judiciary's role in scrutinizing governmental policies on climate change. The plaintiffs argued

that the UK's carbon targets were insufficient under the Paris Agreement. Although the High Court dismissed the case, it emphasized the need for robust and ambitious climate policies, reflecting the increasing legal scrutiny on climate actions by states (ICC, 2019). These cases illustrate the growing role of dispute resolution in addressing public policy issues such as climate change and human rights and setting a structure that allows governments and corporations to be accountable for their climate and human rights' actions.

Moreover, in the energy sector, climate change and sustainability disputes are increasingly complex and prevalent, with over 1,800 cases initiated to date. These disputes can range from low-profile statutory permission breaches to high stakes claims in top courts and public opinion forums (Norton Rose Fulbright, 2021). The rise in such cases is largely due to the intricate legal, financial, and reputational risks companies face as they navigate climate-related challenges. Therefore, climate change and sustainability disputes lack a single common definition, but broadly encompass issues related to climate change effects, policies, and the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement (Norton Rose Fulbright, 2021).

As seen, contractual disputes are another significant area, especially those related to energy transition and adaptation activities. These disputes often arise from the rapid and extensive transitions required in various sectors, such as land, energy, and transport, driven by climate goals. Examples include issues in renewable energy projects, construction disputes, financing difficulties, and carbon credit schemes. A high-profile instance is the Hidroituango hydroelectric dam project in Colombia, which faced substantial disputes and legal proceedings following a construction disaster (Helmcke, 2023).

Finally, climate change impacts on contracts present a broad range of consequences, from force majeure claims due to extreme weather events to disagreements over environmental and sustainability obligations in contracts. For instance, the severe storms in Texas in early 2021 led to significant disputes over natural gas prices and contract terms, highlighting the profound effects of climate change on commercial agreements. These disputes are expected to increase as climate change continues to impact physical and regulatory environments, with the need to use careful risk mitigation and contractual allocations (Busby et al. 2021).

Correspondingly, as we consider the global landscape of energy transitions, it is important to recognize key regions where these legal and regulatory challenges intersect with significant renewable energy developments. Latin America and the Caribbean (LAC) region, with its abundant natural resources and established renewable energy infrastructure, stands out as a pivotal area for the global energy transition.

IV. AFRICA AND LAC REGION: KEY REGIONS FOR THE ENERGY TRANSITION

Latin America and the Caribbean region stand out as a crucial player in the global energy transition due to its abundant natural resources and established renewable energy infrastructure. With 60% of its electricity generated from renewables, primarily hydropower, the region already boasts one of the cleanest electricity sectors in the world, significantly surpassing the global average (Moore & Koop, 2023).

Countries like Brazil, Mexico, Chile, and Argentina possess some of the best wind and solar resources, positioning them as leaders in the renewable energy landscape. The widespread

use of bioenergy and the region's status as a major biofuel exporter further reinforce its pivotal role in the global shift towards sustainable energy sources (Moore & Koop, 2023). In addition to its renewable energy potential, Latin America is rich in critical minerals essential for clean energy technologies. The region holds approximately 15% of global oil and natural gas resources and a significant share of the world's reserves of lithium, copper, and silver—vital components in batteries, electric vehicles, and renewable energy systems (Debuysscher, 2023).

This wealth of resources enables Latin America to support the sustainable mining and processing needed for these technologies, laying a robust foundation for the clean energy industries of the future. The region's capacity to supply these minerals is increasingly critical as global demand for clean energy solutions escalates (Frankena & Bodnar, 2024). Latin America's commitment to renewable energy and its strategic resource reserves makes it indispensable for global efforts to combat climate change. The region's potential to ramp up renewable energy adoption, electrify industry and transport, and enhance energy efficiency is essential to reducing global carbon dioxide emissions (Bernal et al., 2023).

As seen, the implementation of supportive policies and international cooperation can unlock the full potential of Latin America's energy transition. Achieving these ambitious goals requires substantial investment and a focus on equitable access to modern energy, but the benefits—ranging from economic growth to a more secure and sustainable global energy system—place the region as a critical player for the global energy transition. Of course, as seen in previous sections, this central role that Latin America and the Caribbean comes with great risks, especially for the most vulnerable populations.

On the other hand, Africa's significance in the global energy transition is highlighted by its abundant renewable energy resources and strategic mineral reserves, which position the continent as a key player in efforts to shift towards sustainable energy (IRENA & AfDB, 2022). With potential sources of bioenergy, geothermal, hydropower, ocean, solar, and wind energy that are a thousand times larger than the projected electricity demand for 2040, Africa is uniquely placed to lead the renewable energy charge (Dahunsi et al., 2020; IRENA, 2024).

Additionally, the continent is rich in minerals essential for low-carbon technologies, such as lithium, cobalt, and platinum, which are vital to produce electric batteries and wind turbines (Ouedraogo & Kilolo, 2024). This wealth of natural resources provides Africa with a substantial socioeconomic opportunity to develop green industries, reduce dependency on fossil fuel imports, and improve public health by avoiding pollution.

However, these possibilities are intertwined with significant social and economic challenges (Boafo et al., 2024). Africa's rapidly growing and youthful population, expected to see a net increase of 740 million working age individuals by 2050, drives a tremendous rise in energy demand (World Bank, 2023). Yet, the continent remains home to the world's largest population without universal access to modern energy, with 570 million people lacking electricity and almost 960 million relying on basic stoves and traditional fuels (WHO, 2024). This energy access deficit impedes socioeconomic development, limiting opportunities for industrialization, economic growth, and the provision of essential public services like education and healthcare, among others. Thus, the challenge is not only to increase energy supply but to ensure it is affordable, reliable, and inclusive by reaching rural and underserved communities.

The interplay of social, economic, and environmental factors in Africa exemplifies the interconnected nature of global energy transition challenges. While the continent's rich mineral reserves offer a pathway to support the production of clean energy technologies, the benefits will only be fully realized if these resources are utilized to develop in-country high value production chains. This approach could significantly boost local economies, create jobs, and ensure that revenues are reinvested into clean energy infrastructure and broader energy access. Africa's example highlights the importance of integrated policy frameworks that address the interdependent nature of environmental sustainability, economic development, and social equity, providing a model for other regions navigating the complexities of the energy transition.

V. CONCLUSIONS

As examined, the significance of ESG standards in addressing the climate crisis and social inequalities within the context of commercial contracts, makes it crucial to examine the existing dispute resolution mechanisms and their ability to effectively resolve disputes arising from these standards. As the expansion of renewable energy projects continues, particularly in regions like Latin America and Africa, it becomes evident that solely relying on legal parameters and arguments may not adequately address some of the core issues behind ESG and renewable energy project's related disputes for public policy purposes, for example.

Given the pivotal role of environmentally friendly power in combating climate change, there is a pressing need to enhance the dispute resolution mechanisms for these projects. This entails developing tailored strategies that account for the specific risks and challenges of renewable energy ventures while ensu-

ring fairness and impartiality for all stakeholders. While some efforts have been made to modernize existing mechanisms, fundamental changes are necessary to ensure the success of renewable energy projects and their contribution to the fight against climate change.

Several changes could be implemented to improve dispute resolution mechanisms for sustainable power projects. First, establishing specialized and interdisciplinary courts or tribunals with expertise in renewable energy regulation and dispute resolution would provide a dedicated forum for addressing ESG-related disputes. Second, fostering mediation and arbitration methods tailored to the unique requirements of renewable energy projects can facilitate more efficient and effective resolution of disputes.

Confidentiality is paramount in dispute resolution mechanisms involving ESG standards to protect sensitive business information and maintain commercial relationships. ESG standards often involve proprietary data and strategic considerations, under-scoring the importance of confidentiality in negotiations, mediations, arbitrations, or litigations to safeguard the parties' interests and prevent reputational damage.

In summary, the significant infrastructure required, coupled with new and evolving technologies and state intervention through subsidies, heightens the risk of disputes in renewable energy projects. If not properly managed, these disputes could have significant adverse consequences for the companies involved, investors, and the sovereign states hosting the projects. Stakeholders could find themselves entangled in complex legal proceedings involving diverse laws, regulations, and business and government cultures.

For instance, Africa's renewable energy market presents substantial potential for renewable energy and investment, given its abundant sunlight, wind, and hydropower re-sources. Countries like Egypt, South Africa, Kenya, Namibia, and Ghana have made significant strides in developing their solar energy markets. Similarly, Latin America boasts dynamic renewable energy markets, with Chile leading the way in low carbon hydrogen production and exportation.

In conclusion, enhancing dispute resolution mechanisms for renewable energy projects is essential for fostering sustainable development, combating climate change, and promoting social and economic prosperity in regions within Latin America and Africa. By addressing ESG-related disputes effectively, we can ensure the success and impact of renewable energy ventures in achieving a more sustainable and equitable future for all.

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