

RENEWABLES CONUNDRUMS

How to unlock wind and solar energy potential in Latin America and Africa

July 2024



Executive summary

Latin America and Africa are areas of vast renewable energy potential, but to date, utilization of their wind and solar resources remains comparatively limited, especially in Africa. This has negative implications for countries' economic development, national and global climate ambitions, and energy firms that are unable to successfully develop projects.



This briefing provides an overview of renewable energy development in the two regions, reviews the principle constraining factors and examples of successful development, and provides recommendations for how governments and the private sector can seek to promote the sector's growth.

There are several factors that explain the relatively limited development of solar and wind energy across the two regions. While there is variation across countries, in both the levels of renewable success and inhibiting factors, broadly speaking there are four main constraints:

1. Structural and financial factors limiting private sector opportunities, including limited grid capacity, currency and interest rate risks, and a relative lack of skilled labor.
2. Policy regimes that create investment uncertainty due to limited financial incentives, unpredictable regulatory structures, and political doubt.
3. Resistance to development from local communities and environmental groups who, weary of large-scale infrastructure projects, can slow or completely halt development.
4. Failure of independent power producers (IPPs) to understand the local context, leading to poor investment decisions, which create negative reputations and troubled stakeholder relations.

Despite these constraints, this report identifies several success factors which are enabling progress in the regions. These include the make-up of financial incentives deployed by governments, the clarity and stability of regulatory frameworks, the extent of international investment in grid infrastructure, the effectiveness of efforts to facilitate social

acceptance by governments and project developers, and the extent to which IPPs are developing market entry strategies that are well-informed, adaptable, and patient.

For governments seeking to advance their industries, this briefing's key recommendations center around how to:

- **Promote investment and growth through creation of a national roadmap for renewable energy development**, laying out clear plans and processes, a commitment to local social and environmental wellbeing, and mechanisms for financial support to firms.
- **Reduce risk for investors and operators by laying out clear permitting and approval processes** and undertaking education programs and information sharing to explain to local communities the benefits of renewable energy development.
- **Spur investment to propel nascent sectors** by utilizing national development banks to finance national firms to be early movers in the sector.

For IPPs looking to invest in Latin America or Africa, the high-level recommendations presented here cover the full project lifecycle, including:

- **Pre-investment due diligence to thoroughly screen** potential markets for entry and develop well-informed new market and project strategies.
- **During construction and development, build strong, collaborative relationships with national and regional governments** and invest in developing community relationships and being a 'good neighbor' at the earliest possible stage.
- **Develop robust plans for local content and community benefit** and ensure that policies and processes are in place to minimize the possibility of negative human rights or environmental impacts.

Introduction

Latin America and Africa are areas of vast renewable energy potential, but to date, the utilization of their wind and solar resources remains limited, especially in Africa.^{1,2} This has negative implications for countries' economic development, national and global climate ambitions, and for energy firms that are unable to develop projects on the continents. If the sector's development accelerates, it will bring significant benefits to communities, countries, and the planet. This briefing document provides an overview of renewable energy development on the continents, reviews the principle constraining factors and examples of successful development, and provides recommendations for how governments and the private sector can seek to promote the sector's growth.

While there are local nuances, various common threads are apparent in understanding the limited development to date. A lack of a 'route-to-market' and government incentives, regulatory uncertainty and sectoral inexperience, ill-defined land rights, and issues related to expectations from indigenous groups and environmental impacts have all challenged IPPs. Within this context, for those companies that have invested in renewables, failure to face national and local contexts have disenfranchised communities, soured government relationships, and led to investment strategy miscalculations, causing delays and diminishing rates of return. Despite the challenges, and previous missteps from companies in overcoming them, renewable energy in both regions continues to show potential, with several countries and IPPs illustrating that proactive efforts to foster the sector can bear fruit, as will be shown over the following pages.



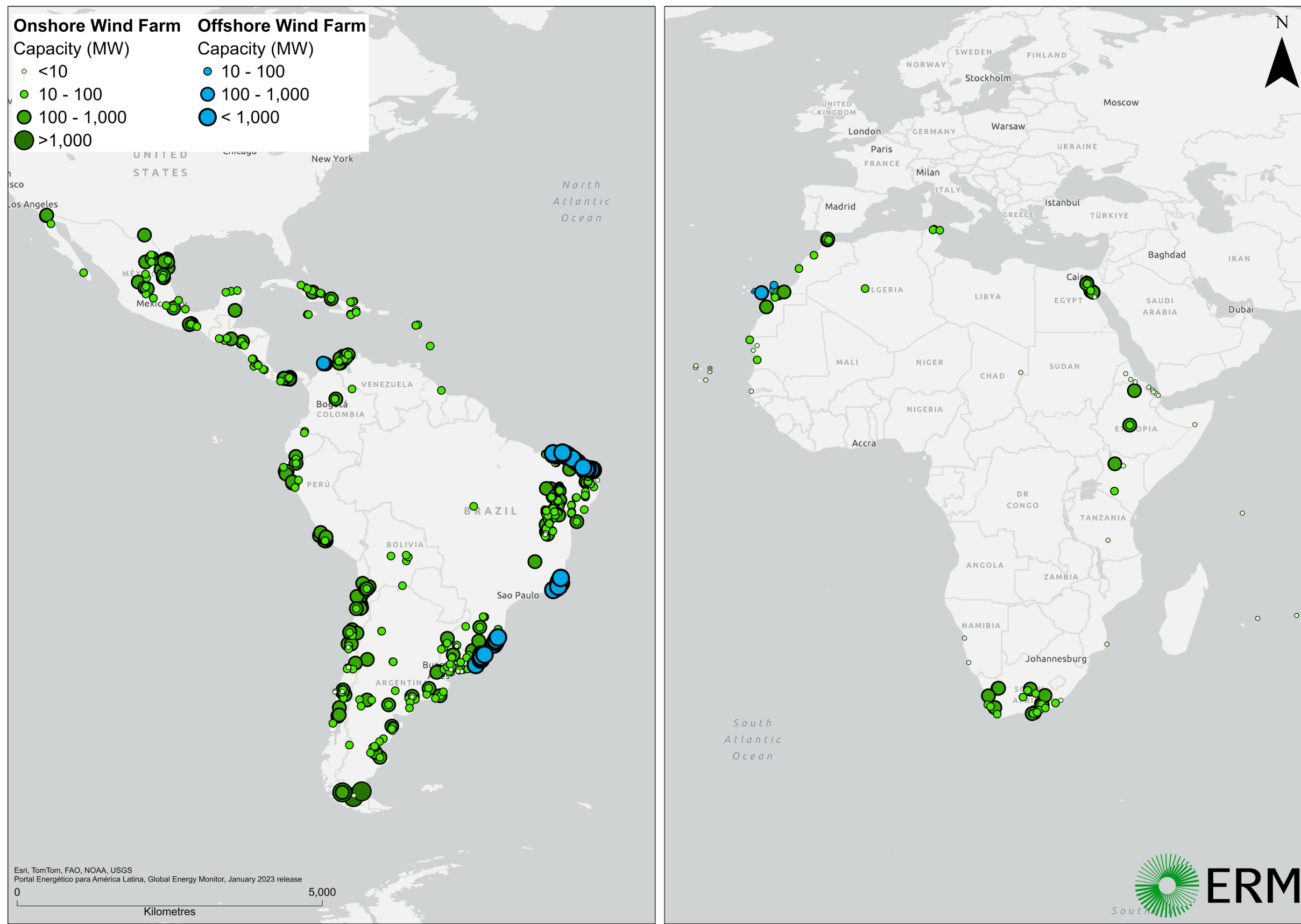


Figure 1: Under Development, Installed and Under Construction Wind Capacity, 2024

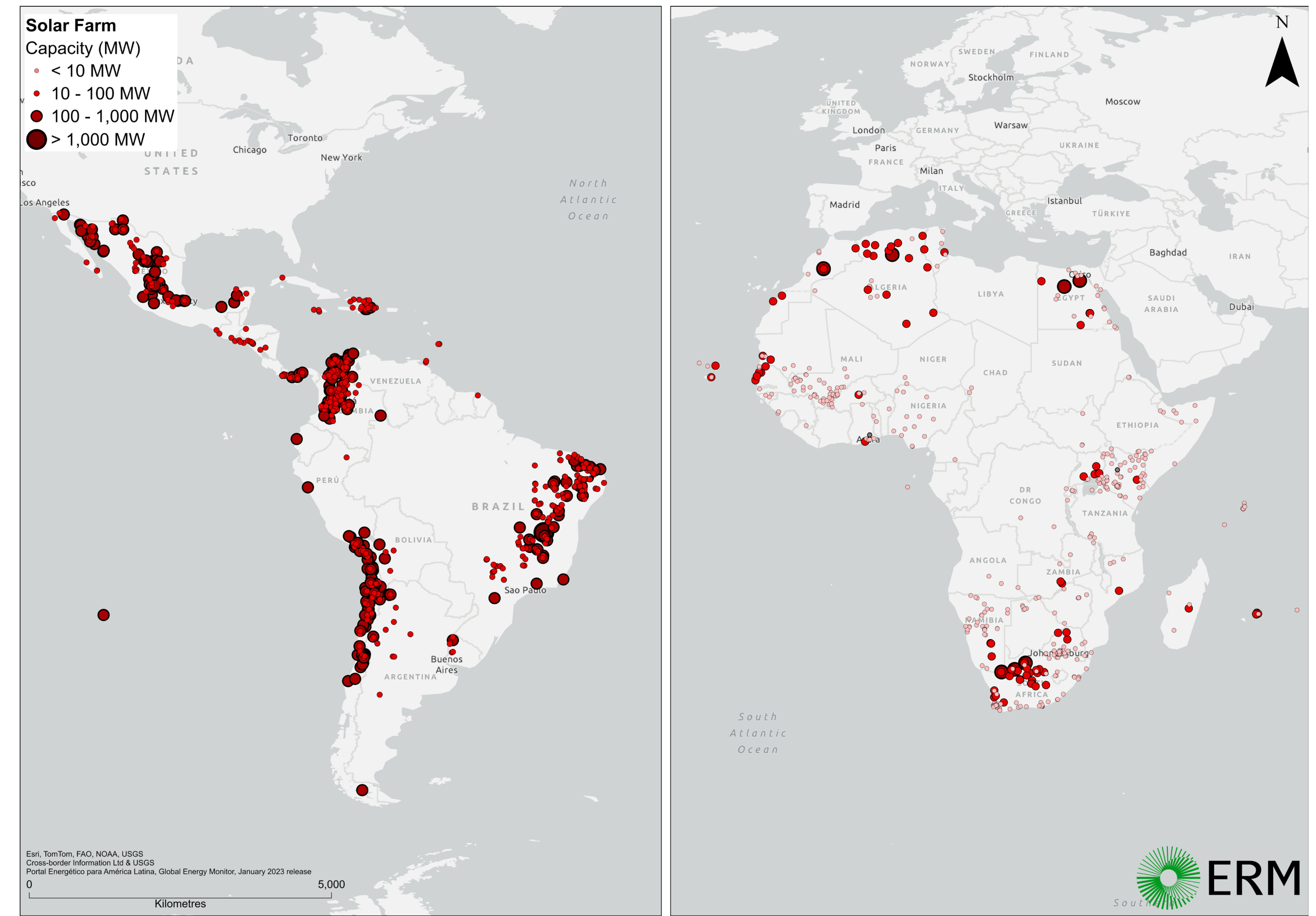


Figure 2: Under Development, Installed and Under Construction Solar Capacity, 2024

Both Latin America and Africa boast abundant renewable energy resources, with clear potential for increased production

The International Energy Agency (IEA) estimates that Africa is home to 60 percent of the world's best solar resources (but only 1 percent of globally installed solar PV capacity)³ and predicts that Latin America is set to play an “outsized” role in the new energy economy, with “all the ingredients” for a rapid energy transition.⁴ Alongside their technical potential, several other factors explain why there is strong renewable energy investment opportunity in Africa and Latin America. Africa is home to many landlocked countries with high oil costs, which, in the context of the global energy transition, will soon be pressured to diversify. Further, the lack of major investment in many countries means there is still limited competition for prime development opportunities. Home to just under 20 percent of the global population, at present Africa receives less than 2 percent of global clean energy spending.⁵

Across the Atlantic, Latin America's electricity sector is already one of the cleanest in the world, primarily due to abundant hydropower. Between 2015 and 2022, Latin America increased its renewable capacity by 51 percent and, in 2022, generated 64 percent of its electricity from renewable sources.⁶ The IEA now predicts that renewables' share of the region's electricity supply will increase from over 60 percent today to two-thirds in 2030 and 80 percent in 2050.

As Figures 1 and 2 show, countries such as Mexico, Colombia, Chile, and Argentina host major wind and solar projects, while the largest economy, Brazil, leads in renewable energy too, with 27 gigawatts of utility-scale solar and wind plants already operating, and

Box 1: The major renewables players in Latin America and Africa

In Latin America, most foreign renewable energy investors are European, due largely to the EU's interest in supporting development in the region under its Global Gateway infrastructure investment strategy. This program includes a 2023 commitment to invest 45 billion euros in approximately 130 energy projects with a focus on renewables, lithium, and green hydrogen. A second reason for high levels of European investment is the use of auctions for project development. Enel, Iberdrola, EDF, and Engie have dominated - particularly in Brazil, Mexico, and Chile - and constituted 4 of the 5 companies with the most installed renewable capacity in the region in 2020.⁸ TotalEnergies also has a strong presence, with its H2 Magallanes project in Chile due online in 2028 with an estimated 10 GW of wind turbines and 8 GW of electrolyzers. Several of the largest projects in development are also owned by Brazilian companies including Internacional Energias Renováveis, which is developing the Ventos Potiguar offshore wind complex, and Brazilian-Italian company BI Energia's Camocim offshore wind farm.

Much international investment in clean energy in Africa presently comes from the Middle East, particularly the United Arab Emirates, seeking greater political influence in the region. Its ambitious plans to invest \$10 billion to increase sub-Saharan Africa's electricity-generation capacity by 10 GW are driven by the state-owned company Masdar, which has renewable energy projects across the continent including five wind farms in South Africa, a battery energy storage system in Senegal, and solar power facilities in Mauritania.

Many of the major Middle Eastern solar power investments being made in Africa share a common business model known as BOOT - Build-Own-Operate and Transfer. Under this model, a company invests their funds in building solar power plants on the premises or open access areas of the client and supplies power to them, generally at a lower tariff than the conventional electricity tariff in the area. Notable projects developed in this way include Saudi company ACWA Power's Noor Ourzazate project in Morocco, the world's largest concentrated solar power plant with a production capacity of 510 MW. Another is AMEA Power and the Government of Ivory Coast's announced partnership to develop a 50 MW solar plant in Bondoukou, with Compagnie Ivoirienne d'Electricité, responsible for the electrical network throughout the country, lined up as the off taker. Middle Eastern investment is also present in wind power, with Masdar's Infinity Power subsidiary becoming the largest private renewable energy producer on the continent following its acquisition of Dutch wind player Lekela Energy in 2023. The involvement of the African Finance Corporation as one of Infinity Power's two key stakeholders highlights the growing trend and importance of African ownership in the region.



another 217 gigawatts of capacity slated to come online by 2030. Latin America's renewable energy strength is not reserved for just its largest economies – Paraguay notably became the first country in the world to source 100 percent of its electricity from clean sources in 2021⁷ following the closure of its last thermal energy plant. Uruguay and Panama also boast high levels of wind and solar development (see Table 1).

Hydropower is the dominant renewable energy source for many African countries including Ethiopia, where it constitutes around 90 percent of total electricity generation capacity, and the Democratic Republic of Congo (DRC) at 95.5 percent.^{9,10} The continent has shown progress in solar energy market development in recent years, seeing over 1.8 GW of new solar installations (see Figure 2), mainly driven by five countries: Egypt, South Africa, Kenya, Namibia, and Ghana. Conversely, wind power development has been slow (see Figure 1), with The Global Wind Energy Council's inaugural report on the Status of Wind in Africa reporting only 83 installed wind farms (9 GW) across the entire continent.¹¹ That said, this will increase by more than 900 percent if the 140 wind projects (86 GW) currently planned are successfully developed.

At the continent-level these figures do not translate into a particularly impressive output, with hydropower only comprising 1.7 percent of the region's energy mix and solar, wind, and geothermal comprising even less at around 1 percent as of 2021.¹² Issues thus remain with attracting substantial investment in renewable energy. Moreover, Africa's burgeoning industrialization is driving up energy demand, with manufacturing output expected to surge by over 6 percent annually until at least 2025. Renewable investment across the region has been declining in recent years, due to compounding factors such as the COVID-19 pandemic and governance challenges.

To scale renewable energy production in both regions, IPPs and governments must overcome several challenges

There are several factors that explain the relatively limited development of solar and wind energy across the two regions. While there is variation across countries, broadly speaking there are four groups of salient issues.

- 1. Structural and financial factors that limit development opportunities.** These include the lack of grid capacity in many countries, low confidence that investments will prove profitable (including currency and interest rate risks), and a relative lack of skilled labor.
- 2. Political and policy regimes that create investment uncertainty.** Governments often lack resources for subsidies and other financial incentives, and in many cases have failed to establish predictable

regulatory structures. Security and political uncertainty in some regions also dissuade investment.

- 3. Resistance to development from local communities and environmental groups.** Resistance from local communities and environmental non-governmental organizations (NGOs) has proved significant for projects from Colombia to Kenya. With legacies of exploitative large-scale infrastructure projects in the regions, and in the context of often ill-defined land rights, a lack of local buy-in can slow or completely halt development.
- 4. Failure of IPPs to understand and prepare for the local context delaying or derailing projects.** Companies operating in the region that have not fully prepared themselves or have shown impatience in project execution have often encountered major problems regarding relations with governments, local communities, and other private sector actors.





1. Structural and financial factors that limit private sector opportunities

A set of structural issues currently affecting the two continents are curtailing international investment in wind and solar projects.

One of the most pertinent issues is the limited grid capacity of many countries, especially within Africa. While grid capacity is a global problem for the industry, it is especially acute within developing countries. Adel Baba-Aissa, an expert on African renewable energy, notes that in sub-Saharan Africa, limits to renewable development are “mainly driven by the grid. After one or two projects are set up, it’s simply not possible for the grid to take more, meaning that IPPs are left with the option of pursuing battery storage, or investing themselves in the grid”. According to the Renewables 2024 Global Status Report from REN21, an international policy network, globally there are at least 3,000 GW of projects under development that are awaiting integration, and although projects have continued, “global funding for grid infrastructure has stagnated”¹³. While advanced economies have at least some ability to address grid concerns, developing countries are more constrained. REN21 cites Colombia, Chile, Brazil, and Mexico among a list of countries for which “the need for grid enhancements could delay or halt progress” over the coming years.

For renewable energy IPPs, developing countries in general present more financial risk than advanced economies. IPPs focused on Latin America or Africa that we spoke with have noted the currency risk involved in operating in markets with volatile relationships with the US dollar, making both costs and revenue unpredictable. Relatedly, the comparatively high interest rates for renewable

projects in developing countries drive up costs and discourages investment. According to REN21, the weighted average cost of capital for onshore wind and solar projects in 2022 was between 8-10 percent for lower middle-income and low-income, compared to under 4 percent for high-income countries. This cost, which reduces potential profitability, deters private sector initiatives, in a context in which private capital is needed to drive renewable development. The IEA predicts that more than 70 percent of the US \$1 trillion per year needed between now and 2050 to finance Latin America and the Caribbean’s energy transition will need to come from the private sector.

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Underpinning the difficult financial context is a lack of government funds to support the solar and wind sectors. At a time when many advanced economies are investing significant capital into renewable energy – Australia is the latest to announce an ambitious budget of subsidies and credits to convert itself into a “renewable energy superpower” – it is difficult (though not impossible, as elaborated later in the report) for low- and middle-income countries to offer similarly enticing frameworks to the private sector.¹⁴

2. Political and policy regimes that create investment uncertainty

Compounding investor concerns about economic and technical feasibility is an often unclear political and regulatory context for project development. At the most elementary level, perceived political instability in some countries discourages potential investment. Commentators have observed that recent political and security uncertainty in West Africa, as well as recent issues facing the South African energy system, have led to a downward trend in large scale renewable projects in Africa over the last 18 months. Particularly for investors with an operating background in advanced economies, new market entry into regions which either rank highly on corruption indexes or are in proximity to conflict can feel too burdensome, especially at points of national or regional crises occur.

“In Latin America, political support [for renewables] was stronger some years ago. With war in Ukraine and the Middle East raising energy security concerns, and uncertainty over future elections in the US and Europe and their attitudes to renewable development, the climate agenda has been deprioritized and governments have lost focus.”

Beyond matters of political and security stability, governments often fail to provide adequate vision, support, and rules for the sector’s development. A relative global stall of the climate agenda over recent years has seen countries in the region dedicate less attention to their energy transition strategies. As one

developer focused on Latin America told us, political support in the region “was stronger some years ago. With war in Ukraine and now the Middle East raising energy security concerns, and uncertainty over future elections in the US and Europe and their attitudes to renewable development, the climate agenda has been deprioritized and governments have lost focus”. This lack of governmental focus, coupled with often limited regulatory capacity and state finance, can mean that while some governments in the region hold ambitious renewable targets, they struggle to implement them.

Regulatory unpredictability is a major problem, with uncertainty over timelines making it harder for IPPs to accurately model the financing of projects. As one developer focused on Africa recounted, “One of the main problems is regulatory flux and the protracted processes in setting up businesses. It is hard to predict the timeline and outcome. Compared to other geographies like Europe, the key challenge is not the overall time it takes to develop the project, but more the unpredictability. Projects that have been moving will suddenly just stop developing, waiting for permits or a decision to be taken on land usage”. Even in relatively advanced renewables markets such as Brazil, regulatory frameworks remain unclear. In offshore wind, development of federal rules and incentives to support offshore wind has been slow, and government pronouncements that a regulatory framework would be in place by the end of 2023 have now slipped. In Brazil too, the government has yet to resolve regulatory uncertainty over overlapping project areas, to the frustration of the private sector.

In some cases, it is the rigidity of regulators, including within permitting processes, which slows progress. In Chile, for example, a solar developer reported that the

regulators had required the construction of a defense structure for an adjacent stream. The developer argued that their studies indicated that the proposed structure would cause additional flooding, but they were unable to engage with the authorities on the subject. The developer submitted their environmental impact assessment, but in June 2024 had the application rejected, and will now need to resubmit. This will delay the project’s development by two years.

3. Resistance to development from local communities and environmental groups

A common misconception is that because wind and solar projects are not extractive in the same way as mining or oil & gas projects, they are immune to the ‘social license-to-operate’ challenges that have often affected large-scale projects in Latin America and Africa. In practice, many renewables projects have suffered major delays or have been scrapped entirely across both continents owing to opposition from local communities or environmental groups (see, for example, Box 2), with indigenous groups (and broader community groups) increasingly defending their rights and interests.

Community opposition is often rooted in (a) a perception of unfair consultation processes, (b) real or perceived negative social and environmental impacts of the project, or (c) dissatisfaction over proposed employment opportunities and other benefits. Groups are increasingly protected by national legislation and international expectations and have much better access to legal support and media campaigns, including those facilitated by NGOs, than they did in previous decades. In some jurisdictions, IPPs complain

that a lack of clarity over the consultation process means that indigenous groups and local communities come back time and again during years of consultation to raise new concerns, often significantly derailing project timelines. Issues over opaque consultative expectations within the process of securing environmental and social permits are seen to afflict even the most positive markets on the continents, including Colombia and South Africa.

Community opposition is further complicated in states where land rights are poorly defined or are disputed. Solar and wind projects typically need to be located close to population centers, where land is typically more valuable, either in a commercial sense or in terms of its importance to a particular community, which can lead to contestation. If ownership rules are unclear, then issues arise. As one developer focused on Africa commented, “in early development, uncertainties around land ownership weigh strongly on projects. It is hard to identify landowners, and to assure third parties – such as larger IPPs that are potential buyers or the government – that rights to buy the land have been secured”. Without clarity over land rights, confidence for investors is markedly diminished, stifling growth.

“In early development [of African renewable energy projects], uncertainties around land ownership weigh strongly on projects. It is hard to identify landowners, and to assure third parties – such as larger developers that are potential buyers or the government – that rights to buy the land have been secured.”

Box 2: Windpeshi Wind Project and the challenge of community opposition

Some renewable energy projects in Latin America, such as the Windpeshi Wind Project in Colombia, illustrate the challenges the private sector faces due to community resistance. Located in Colombia’s La Guajira department near the Venezuelan border, the Windpeshi Wind Farm was expected to generate 1,000 gigawatt-hours (GWh) of power annually, enough to supply 500,000 homes.¹⁵ However, by May 2023, when the project was only 35 percent complete, Enel, the company behind Windpeshi, announced its permanent suspension.¹⁶

The suspension of the Windpeshi project was largely attributed to the project’s failure in meeting local community expectations and a government failure to mediate substantive discussions between Enel and the various stakeholders involved. The wind farm, initiated in 2021, was designed to be constructed over more than 6,000 hectares of land that has been traditionally occupied by the Wayuu indigenous group of Colombia. To many within the community, the renewable energy project lacked respect for indigenous land rights, and the spiritual and cultural aspects that sustain these communities. Concerns over displacement and intra-community violence stemming from the Windpeshi project led to the Wayuu community pushing back against the wind farm. This included two years of protests and road blockades, cutting the number of working days at the construction site in half. Similar to situations surrounding other wind farms in the region, disagreements on issues of displacement and compensation led to violence among communities, raising questions of the impact of the project as a whole.

After this experience, an interior ministry official stated that there was a need for dialogue between stakeholders regarding wind farm projects, however, so far there has been no established institutional process for consultations over wind projects in La Guajira.

4. Failure of IPPs to understand and prepare for the local context delaying or derailing projects

Companies operating in Africa or Latin America that have not fully prepared themselves or have shown impatience in project execution have often encountered major relationship problems with governments, local communities, and other private sector actors. Here, the issue is not the investment context itself, but rather the failure of IPPs to understand the investment context leading to delays that reduce a project’s rate of return. As Adel Baba-Aissa stated, “If you are looking at Africa opportunistically, you tend to become deflated more quickly than others. Those that see Africa opportunistically tend to be the ones that come

and go”. If strategies are not built from an informed understanding of the market, and if trainings are not conducted to inform staff, then projects are far more likely to run into obstacles.

For example, wind IPPs focused on Latin America commented that some companies have construction engineers who are not trained on interacting with local communities, often souring relations and raising opposition. Similarly, a previous report by the Business and Human Rights Resource Centre revealed that only five out of 50 renewable energy companies analyzed had sufficient policies to prevent human rights abuses, suggesting a lack of preparation for the type of contexts that they may encounter.¹⁷

When entering new and unfamiliar markets, it is also critical that IPPs are sensitive to how foreign investment may be perceived. Renewable energy developments necessitate large-scale acquisition of rural land, which is often perceived as being marginal and underutilized in its existing form – for example, when being used by small herd owners for animal grazing. This land use is also often rooted in historical popular sovereignty rather than formalized legal rights to land, meaning that the communities using the land have limited legal recourse to prevent project development. This can lead to accusations of ‘green grabbing’, particularly when coupled with other issues such as low compensation for those whose livelihoods have been affected, failure to adequately inform communities on potential impacts on water and land use, and – particularly in regions like North Africa – exporting the energy produced to Europe rather than utilizing it domestically. Once more, this presents a lack of an informed understanding of the project context, as well as a failure to place adequate value on social dynamics and cultural heritage. If poorly navigated, this exposes IPPs to a host of reputational and operational risks.

Despite challenges in promoting the solar and wind industry in Latin America and Africa, various countries have successfully fostered the sector’s growth.

Several countries across the regions have fostered an environment that enables wind and solar project growth. The likes of Chile, Brazil, and Panama in Latin America and South Africa, Namibia, and Egypt in Africa have to date had the most success advancing projects (see Tables 1 and 2).

Table 1: Leading Latin American countries in solar and wind energy, by population

Country	Solar capacity (MW)	Wind capacity (MW)	Combined solar/wind capacity (MW)	Combined capacity (MW) by population, millions	MW by population, regional rank
Chile	22,827	25,380	48,207	2,473	1
Brazil	62,392	165,448	227,839	1,063	2
Panama	1,535	1,589	3,124	694	3
Columbia	25,487	7,335	32,822	623	4
Uruguay	344	1,526	1,870	527	5

Sources: See Figure 1. MW capacity includes installed and under construction projects.

Table 2: Leading African countries in solar and wind energy, by population

Country	Solar capacity (MW)	Wind capacity (MW)	Combined solar/wind capacity (MW)	Combined capacity (MW) by population, millions	MW by population, regional rank
South Africa	2,319	2,118	4,437	74	1
Namibia	146	5	151	57	2
Morocco	672	1,298	1,970	50	3
Egypt	1,780	1,393	3,172	29	4
Tunisia	45	246	290	24	5

Sources: See Figure 2. MW capacity includes installed and under construction projects. Only countries on the African mainland have been included in analysis. Figures for Morocco include Western Sahara.

While technical (e.g., wind speed, irradiance, market size) and political (e.g., the geopolitical relevance of certain nations) factors partially explain the evolution of wind and solar in these regions, governments themselves are also influencing its trajectory. Several governments have fostered development through the following key approaches:

- **Financial and policy incentives.** Countries like Brazil, Colombia, and Kenya have successfully introduced tax benefits and government-backed guarantees. Tax benefits provided by governments typically offer investors with a full or partial tax deduction when investments are made in the renewable energy sector. In Colombia, new investments in ‘Non-Conventional Source of Energy’ projects, including wind and solar, receive a 50 percent deduction in their income tax, are exempted from value-added tax (VAT) and customs, and have accelerated tax depreciation.¹⁸ Financial incentives like subsidies, import tax incentives, and VAT relief have all played a role in positioning Colombia as one of the most attractive countries for renewable energy investments in Latin America. While not all countries can readily afford to give out generous incentives, a system of tax breaks, ideally tied to commitments from IPPs to maximize local development benefits, does not have immediate costs for the state. Additionally, state-backed low-interest financing through development banks, as seen in Namibia through the Development Bank of Namibia, help early movers (particularly national companies) to kick-start the industry, when private sector capital is more cautious. In Chile, the ‘Price Stabilization Mechanism’ (2004) gives a fixed price for smaller electricity facilities (<9MW), boosting the economic viability of emerging national firms.

As one national developer stated, “We were born, in part, because of the stable price system. At the start of the energy transition, it made the market more diverse, more competitive”.

- **Grid Expansion.** In developing countries particularly, significant investment is required to expand grids and improve their reliability. It is critical that countries are provided (ideally non-debt inducing) financing to support this. One such source of financing is the World Bank, which has funded several projects focused on strengthening the grid and improving reliability (e.g., through developing transmission lines and battery storage in Namibia and Uganda). It has also partnered with governments such as that of Haiti to provide grants and equity to private mini-grid developers. However, governments can also support grid expansion through development of attractive public-private partnership (PPP) offerings to encourage private investment in grids. The Economic Commission for Africa (ECA) has acknowledged the need for PPPs in grid expansion and has worked with several African countries to enhance their PPPs for infrastructure development.
- **Clarity and stability of regulations.** Within Latin America and Africa, many countries have recently reaffirmed their commitment to long-term projects that aid the energy transition and promote economic stability. Overall, the clearer and more stable the regulatory framework, the more confidence that investors have evidently had in investing in renewable energy. As an official from the Chilean Ministry of Energy stated, “One of Chile’s strengths in energy policy is that policies have been consistent across various governments in recent decades. They



Box 3: Successful renewable energy policy in Egypt

Egypt has positioned itself as a leader in renewable energy development in Africa, attracting major investors such as Masdar and AMEA Power for projects across the country. It has set a relatively ambitious target of generating 42 percent of its electricity from renewable resources by 2035.¹⁹ To achieve this, the state has proactively implemented a strategic policy mix that includes feed-in tariffs to attract investors and competitive biddings to lower purchasing power agreement (PPA) prices.²⁰

Benban Solar Park, in the country's Aswan governorate, exemplifies how this strategic policy mix has impacted Egypt's renewable energy development. Initiated in 2014 under Egypt's Nubian Suns Renewable Energy Feed-in Tariff, the solar park attracted a \$653 million debt package through an International Finance Corporation-led consortium in 2017.²¹ Companies such as Infinity Solar expressed their willingness to participate after Egypt issued their Renewable Energy Law and Feed-in Tariff program, while the European Bank for Reconstruction and Development highlighted Egypt's active efforts to modernize the grid and its long-term vision under the 2035 Integrated Sustainable Energy Strategy as key reasons for their investment. Political and economic stability was also named by investors like ACWA Power as one of the key factors driving their participation. Currently, the park is expected to produce approximately 4 TWh of electricity per year, making it one of the largest solar parks in the world.

In addition to financial incentives, Egypt has also made efforts to build social acceptance for large-scale renewable investment. In 2018, the government, in collaboration international financial institutions, produced a Strategic Environmental and Social Assessment (SESA) to document salient social and environmental issues for wind and solar projects in the East Nile Area.

By requiring information such as the identification of potential environmental and social impacts associated with renewable energy projects, the SESA has promoted transparency for projects in the country. The document includes local project management and mitigation strategies, such as employing community members in the Nile Valley to avoid labor influx issues and necessitating clean and safe accommodation facilities to meet lender standards.²² Because the SESA's creation also requires public consultation and stakeholder engagement, it raised investor awareness about local expectations and created space for dialogue within the local community.



do not depend on the government of the day. This is an advantage – it gives orientation and clarity for investors. Chile has clear institutional processes. When you start a project as an investor, you know more or less what to expect”.

- **Facilitating social acceptance.** Stakeholder engagement and environmental assurance are factors that have strengthened the local acceptance of wind and solar energy projects, protecting them from potential dispute and conflict with communities. Governments have in some instances pushed for greater understanding of social and environmental issues, such as the development of a Strategic Environmental and Social Assessment (SESA) by Egypt (see Box 3). In some instances, local stakeholders consider permitting processes effective, lending legitimacy to projects that have earned approval.



Beyond government support and a conducive technical-economic context, successful development is dependent on the approach taken by IPPs

Various companies, including some of those discussed in Box 1, have exhibited attributes that help them operate in Latin America and Africa. In short, if companies want to successfully develop in these regions, they should adapt their planning based on local and national contexts, engage early with relevant stakeholders and in the necessary technical studies, and be patient in the face of regulatory and logistical challenges.

Strategies that were effective in one jurisdiction should not be presumed applicable in neighboring countries, and the most successful IPPs will conduct thorough analysis of local contexts as part of their

market entry strategy. As one IPP remarked, “you can’t just copy and paste your projects, you have to be adaptable”. The more thorough market entry strategy, the more likely that companies will be successful. As Nigel Seed, one of ERM’s Africa Environmental, Social, and Governance (ESG) Partners, states, “ESG is one important factor in the success of capital projects and getting access to capital markets. Developers can benefit from having a clear understanding of which tasks are critical at which point in the project development lifecycle and phase their feasibility studies accordingly; this is particularly important when it comes to lenders’ ESG requirements.”

When companies arrive at project development, success requires IPPs to show consistency and patience. If thorough due diligence has been conducted and working relationships established

with all key stakeholders, developers should rarely be blindsided by the nature of any obstacles that arise. Success should be a matter of collaborating with governments, local authorities, and communities. And, if an unforeseen obstacle should arise, the strength of these relationships will play a major role in the ability of developers to mitigate, avoid, or overcome operational impacts.

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Recommendations to unlock wind and solar energy potential in Latin America and Africa

For wind and solar energy to be successful in Latin American and Africa and support economic development and global energy transition targets, ERM recommends several actions that governments and IPPs should pursue.

For governments seeking to advance their industries, key recommendations are:



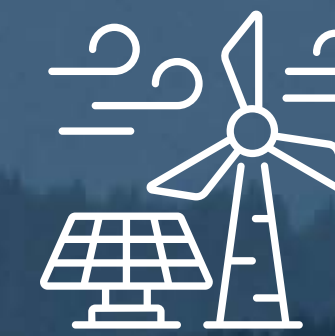
Developing a national roadmap for renewable energy development. This should include strong, enforceable frameworks for incentivizing investment (including from domestic capital and firms), for encouraging local economic and social benefits, and ensuring environmental and social protection. Creating these frameworks gives companies, communities, and financial institutions confidence that a country's renewable energy plans are robust. Roadmaps should also include firm targets for installed capacity to signal the extent of ambition to prospective investors.



Devising clear permitting and approval processes, with indicative timelines and clarity on when local community engagement is expected. Ensure that processes for indigenous engagement have consistent procedures and give opportunity for these engagements to influence projects. A well-planned permitting system can be efficient in the time it takes, but simultaneously thorough in consideration of environmental and social considerations, increasing the speed of project development and reducing likelihood of opposition.



Utilizing national development banks to incentivize national firms to be early movers. State financial support for new sectors helps fill early gaps in private sector financing, helping to propel nascent sectors and eventually 'crowd-in' private sector capital.



Studying the areas of greatest opportunity for wind and solar development nationally and assessing social and environmental risks. These evaluations will provide clarity to lenders and IPPs as to which areas will be most opportune for development. National Strategic Environmental and Social Assessments (SESAs) for renewables boost the likelihood that projects will be developed in the most appropriate locations.



Undertaking education programs and information sharing to communicate the benefits of renewable energy development to local communities. To secure buy-in, communities must feel that these large-scale infrastructure projects will have a positive impact on their wellbeing and livelihoods.

For IPPs looking to invest in Latin America or Africa, key recommendations are:



Conducting thorough screenings of potential new markets. Ensure that you have a clear sense of relevant national dynamics, stakeholder issue areas, and technical challenges across prospective markets and that a robust internal decision-making framework is in place. This will ensure that you develop the most feasible projects.



Developing well-informed new market and project strategies. Dynamics will vary from country to country, and if companies are to succeed, they need to have full awareness of local and national contexts, tailoring their development models accordingly. Investing time in informed and realistic strategy development will give you greater chance of success in the long term.



Building strong, collaborative relationships with national and regional governments early in project development. Illustrate to governments the economic and environmental benefits of supporting the energy transition (e.g., reduced energy costs, greater energy reliability compared to hydropower, etc.). Ensure you are confident that the national government will remain stable for investment and conduct long-term horizon scanning of potential national changes.



Investing in community relationships and being a ‘good neighbor’ early. Engage with stakeholders in the region to understand what their expectations of a new corporate presence may be and assess whether there will be significant impacts on the local economy, demographics, or ancillary industries.



Developing robust plans for local context and ensuring local community benefit. Understand your local contexts and the positive impact that your organization can play at local and national levels. Companies that serve as national development partners are most likely to succeed and enhance the impact of their projects.



Ensuring that policies and processes are in place to minimize negative human rights or environmental impacts. Establish internal policies and systems for assessing human rights risks – including throughout the supply chain. Roll out company-wide training for teams on environmental and social dynamics during project development, ensuring that all members of the team (including early-stage engineers) are trained on topics related to community engagement and environmental issues.

Endnotes

¹ This briefing focuses on wind and solar energy. The decision was taken to exclude other renewable energies, such as hydroelectricity, which are considered less likely growth engines of the renewable energy transition.

² Including Latin America and Africa in a joint analysis is, to an extent, reductive. However, despite the differing levels of solar and wind development, we found in analysis that the same broad set of constraints and success factors were evident in both regions.

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²⁰ As above.

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Authors

Christopher Hope Ph.D, ERM

Eliza Topliff, ERM

Prasiddhi Shrestha, ERM

Rose Kilonzo, ERM

Max Railton, ERM

Contributors

Andrew Angle, ERM

Taylor Rocklage, ERM

Mark Wilson, ERM

Design

Debra Janis, ERM

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ERM's Political and Stakeholder Strategy team, which led the analysis for this article, specialize in political, regulatory, social, and economic analysis of the energy and mining sectors. For any queries related to this article, please contact Christopher Hope (christopher.hope@erm.com)

LinkedIn: [linkedin.com/company/sustainabilityinstituteerm](https://www.linkedin.com/company/sustainabilityinstituteerm)

Website: [sustainability.com](https://www.sustainability.com)