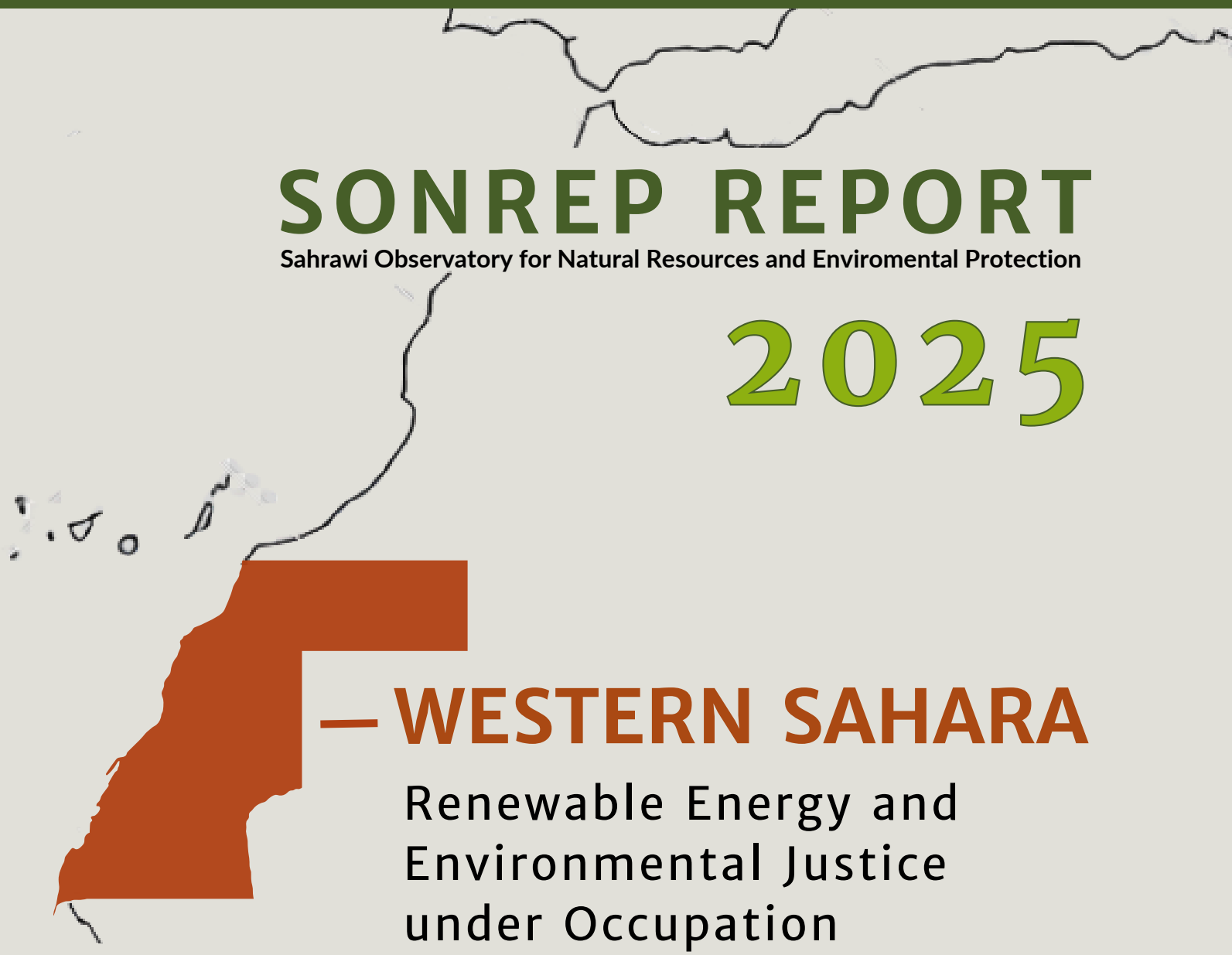
SUSTAINABLE FOR WHOM?



SONREP REPORT

Sahrawi Observatory for Natural Resources and Enviromental Protection

2025

— WESTERN SAHARA

Renewable Energy and Environmental Justice under Occupation

Sustainable for whom? Renewable energy, greenwashing, and environmental justice under occupation

Executive Summary

This report provides a comprehensive analysis of Morocco's ongoing exploitation of Western Sahara's natural resources, focusing on large-scale renewable energy projects. These activities constitute a violation of international law and further entrench Morocco's unlawful occupation. The report examines the legal implications of key judicial decisions, including the October 4, 2024 ruling by the Court of Justice of the European Union, which reaffirmed that EU-Morocco agreements cannot legally apply to Western Sahara without the explicit consent of its people. Additionally, it highlights the ruling of the African Court on Human and Peoples' Rights, which reaffirmed the Sahrawi people right to self-determination and condemned Morocco's continued resource exploitation in the occupied territory of Western Sahara.

Beyond the legal dimensions, the report explores the broader economic and environmental consequences of these extractive activities, including their impact on global ecological systems and local livelihoods. Furthermore, it critically assesses the role of international financial mechanisms and corporate complicity in sustaining these projects. In light of these findings, the report underscores the urgent need for compliance with international law and calls for the immediate withdrawal of foreign companies and investments that contribute to Morocco's occupation of Western Sahara.

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INTRODUCTION

Renewable Energy Projects in Occupied Western Sahara

The expansion of renewable energy projects in occupied Western Sahara represents a direct continuation of Morocco's illegal exploitation of the territory's natural resources. Morocco has systematically incorporated Western Sahara into its national economic and energy strategy, establishing large-scale wind, solar, and hydrogen projects. These projects serve to deepen the illegal occupation, entrench Moroccan economic control, and deny the Sahrawi their fundamental right to self-determination and independence.

International law is unequivocal on this matter. The Court of Justice of the European Union (CJEU) has ruled on multiple occasions that Morocco has no sovereignty over Western Sahara and that any agreements involving the territory's resources require the direct consent of the Sahrawi people. Despite these rulings, Morocco continues to sign energy agreements that include Western Sahara, facilitating investments that reinforce its colonial hold. Governments and corporations engaging in these projects knowingly disregard legal obligations and ethical responsibilities, prioritizing economic and geopolitical interests over international law and fundamental human rights.

The scale of Morocco's renewable energy activities in occupied Western Sahara is extensive. Wind farms and solar installations in Laayoune (El Aaiun), Bou Craa, and Dakhla (Dajla) are being developed with the involvement of multinational corporations and foreign investors. These projects generate significant revenue for the Moroccan state and its energy sector while systematically excluding the Sahrawi people from any economic benefit. Furthermore, the employment opportunities created disproportionately favour Moroccan settlers, accelerating demographic change in the occupied Western Sahara. Instead of promoting genuine development, these projects further entrench colonial economic structures designed to benefit the occupying power and implicate more foreign players in an international theft of the Sahrawi natural resources.

Apart from legal and political violations, these energy projects also have severe environmental and socio-economic consequences. Large-scale renewable energy installations require significant land, leading to the forced displacement of the Sahrawi and the militarization of key areas. The expansion of green hydrogen production, which relies on vast amounts of water, threatens to exacerbate already critical water scarcity issues in the region. These projects are designed primarily to serve foreign energy markets rather than addressing the needs of the Sahrawi people, reinforcing a pattern of resource extraction that mirrors previous forms of colonial exploitation.

The Sahrawi people have consistently rejected these projects, identifying them as tools of occupation rather than legitimate investments. The call for divestment from energy projects in occupied Western Sahara is a demand for adherence to international law, respect for human rights, and recognition of the Sahrawi's right to control their own natural resources. Governments, corporations, and financial institutions must immediately cease all involvement in these unlawful ventures. A genuine transition to sustainable energy must be built on principles of decolonization and justice, ensuring that the people of Western Sahara are the sole decision-makers over their land and its resources. Until that right is fully recognized and respected, any renewable energy projects conducted in the territory without Sahrawi consent will remain a simple colonial tool of complicity in the ongoing illegal occupation and resources plunder.

1 International Law and Green Projects in Occupied Western Sahara

The expansion of green projects in occupied Western Sahara raises legal and ethical concerns, as it occurs in direct violation of international law. Western Sahara is recognized by the United Nations as a Non-Self-Governing Territory, with its decolonization process still incomplete. The African Union goes even further by recognizing the Sahrawi Arab Democratic Republic (SADR) as the only legitimate government in Western Sahara, totally rejecting the Moroccan presence in it. Morocco's presence in parts of the Sahrawi Republic is considered by the AU as an illegal occupation.

The Sahrawi people possess the exclusive right to determine the use of their natural resources, a principle firmly established in international law. However, Morocco, as the occupying power, has systematically incorporated the territory into its national energy agenda, promoting wind, solar, and hydrogen projects produced in occupied Western Sahara as theirs. These activities contravene international legal principles and serve to consolidate Morocco's illegal presence in the territory, thereby depriving the Sahrawis of their right to self-determination and sovereign control over their resources.





I Violation of International Law

The legal status of Western Sahara has been clearly articulated through various international legal instruments. In its 1975 advisory opinion, the International Court of Justice (ICJ) concluded that there were no legal ties of territorial sovereignty between Western Sahara and Morocco that would justify Moroccan claims over the territory. The ICJ reaffirmed the right of the Sahrawi people to self-determination. Despite this ruling, Morocco proceeded with its occupation, and in the subsequent decades, it has systematically exploited and plundered Western Sahara's natural resources—including phosphates, fisheries, and more recently renewable energy.

The United Nations General Assembly and Security Council have consistently recognized Western Sahara as a Non-Self-Governing Territory, implying that its natural resources cannot be exploited without the consent of the Sahrawi people. This principle was reinforced by a 2002 legal opinion from the UN Office of Legal Affairs, which stated that any exploration and exploitation of mineral resources in Western Sahara without the explicit approval of the Sahrawi people would violate international law. Moreover, in 2015 the African Union Legal Counsel issued a landmark Legal Opinion clearly indicating that Morocco is a force of occupation in Western Sahara, that the Sahrawi Republic is the legitimate government of the territory and that all exploration and/or exploitation of the Sahrawi natural resources by Morocco or any other entity is illegal [1]. Renewable energy projects, akin to other forms of resource extraction, fall under this legal framework and must be assessed accordingly.

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[1] African Union. (2015). Legal opinion of the AU Commission Legal Counsel on the legality of the exploitation and exploration by foreign entities of the natural resources of Western Sahara. African Union. African Union Legal Opinion: https://au.int/sites/default/files/newsevents/workingdocuments/13174-wd-legal_opinionof-the-auc-legal-counsel-on-the-legality-of-the-exploitation-and-exploration-by-foreign-entities-of-the-natural-resources-of-western-sahara.pdf

II Renewable Energy as a Tool for Expanding the Occupation

The development of large-scale energy projects in Western Sahara is not merely an economic endeavour; it also serves as a political instrument used by Morocco to reinforce its occupation. By expanding wind and solar farms and integrating them into its national energy infrastructure, Morocco aims to normalize its control over the territory. These projects illegally strengthen Morocco's economic grip on Western Sahara, embedding Moroccan state institutions and economic networks within the occupied territory.

Moreover, these projects contribute to demographic shifts in the region. The Moroccan government actively encourages the migration of Moroccan workers and settlers to Western Sahara, many of whom find employment in the renewable energy sector. This systematic policy of demographic manipulation further marginalizes the Sahrawi people, eroding their political and economic influence, and constitutes a clear violation of the Fourth Geneva Convention, which prohibits occupying powers from altering the demographics of occupied territories.

III Financing the Occupation and Undermining Sahrawi Rights

The revenues and energy produced from these projects directly support Morocco's broader strategy of occupation. Energy generated in Western Sahara is integrated into the Moroccan national grid, supporting Moroccan industries, infrastructure, and even energy exports. A significant portion of this energy powers Morocco's extractive industries in the territory, such as the Bou Craa phosphate mines. This means that these projects are merely a tool used to facilitate the settlement and occupation of the territory.

International investors and companies involved in these projects are not only engaging in businesses; they are actively financing and legitimizing Morocco's illegal occupation. By entering into agreements with the Moroccan government that encompass renewable energy developments in Western Sahara, they become complicit in the illegal exploitation of Sahrawi resources. These investments signal to Morocco that it can continue its occupation without facing consequences, thereby undermining international efforts to achieve a just and lawful resolution to the conflict.

2 European and African Court Rulings on Western Sahara Natural resources









I The Court of Justice of The European Union Ruling

The Court of Justice of the European Union (CJEU) has reaffirmed the illegality of Morocco's economic activities in Western Sahara, ruling that EU trade agreements with Morocco cannot lawfully extend to the territory without the explicit consent of the Sahrawi people.

In its October 4, 2024 judgment, the CJEU upheld previous decisions annulling EU-Morocco trade agreements on fisheries and agriculture that unlawfully included Western Sahara. The case, brought forward by the Polisario Front, challenged the inclusion of the occupied Western Sahara in these agreements, arguing that they were concluded without the consent of the Sahrawi people. The court reaffirmed that Western Sahara holds a status "separate and distinct" from Morocco under international law, rendering any economic agreements affecting the territory invalid in the absence of Sahrawi consent.

This ruling reinforces a series of previous judgments by the Court of Justice of the European Union, which have consistently determined that Morocco lacks sovereignty over Western Sahara and therefore cannot legally exploit its natural resources or engage in international agreements that include the Western Sahara.

Despite these legal determinations, European governments, corporations, and financial institutions continue to support Morocco's economic activities in Western Sahara, particularly in the renewable energy sector. Various EU member states and multinational energy firms have provided financial and technical assistance to Moroccan solar and wind energy projects, many of which are located in the occupied territory. These actions not only contravene international legal standards but also undermine the European Union's commitment to human rights and the rule of law.

The ruling carries significant implications for EU-Morocco relations, compelling the European Union to reassess its trade policies and economic engagements involving Western Sahara. It also reinforces the legal and ethical obligations of states and corporations, which, under international law and the UN Guiding Principles on Business and Human Rights, must ensure that their economic activities do not contribute to human rights violations or sustain an illegal occupation.

II African Court on Human and Peoples' Rights Ruling

The African Court on Human and Peoples' Rights [2] has similarly condemned Morocco's presence in Western Sahara. In its September 22, 2022 ruling, the Court declared Morocco's occupation a "serious violation of the right to self-determination", emphasizing that all African Union (AU) member states and non-African states have a legal obligation to facilitate a resolution to the occupation and ensure that the Sahrawi people can fully exercise their right to self-determination.

The ruling reaffirmed the African Union's official position that Western Sahara remains a partly occupied member state of the Union and stressed that no state should engage in agreements or policies that might support the Moroccan occupation of the country. The Court's decision strengthens legal arguments against Morocco's continued presence in the occupied Western Sahara and places a binding obligation on African states to refrain from actions that undermine the Sahrawi people's rights and territorial sovereignty.

The legal and diplomatic consequences of this decision are significant. As African nations deepen economic and political relations with Morocco, this ruling provides a clear legal framework opposing any agreements that legitimize Morocco's territorial claims. States and corporations engaged in economic activities in Western Sahara may now face greater legal scrutiny and potential liability under African and international law.



[2] African Court on Human and Peoples' Rights. (2022 September 22). Application No. 028/2018 Judgment. African Court on Human and Peoples' Rights. https://www.african-court.org/cpmt/storage/app/uploads/public/632/e0f/3ad/632e0f3ad580e748464681.pdf

III Legal and Political Implications

These rulings reinforce the growing legal and diplomatic pressure on Morocco's activities in Western Sahara, setting clear legal precedents that international agreements cannot be extended to the occupied Western Sahara without Sahrawi consent. They also highlight the responsibility of states, international institutions, and corporations to ensure compliance with international law when engaging in trade or investment in the region.

- **The Polisario Front welcomed both rulings as significant victories, affirming their legal standing in advocating for the Sahrawi people's rights.**
- **The Moroccan government rejected the decisions, reiterating its territorial claims over Western Sahara and asserting its commitment to continuing its policies in the region.**
- **The European Commission acknowledged the CJEU ruling, stating that it would review its implications while maintaining its broader relationship with Morocco.**

These legal developments mark a critical juncture for European and African institutions, requiring them to align their policies with international law or risk further legal challenges and reputational damage. These rulings also send a strong message to businesses and investors that participation in economic activities in occupied Western Sahara carries legal, financial, and ethical risks.

As international scrutiny intensifies, Morocco's economic activities in the territory, along with its diplomatic leverage on the issue, face increasing challenges. The enforcement of these legal decisions will be a key test for the EU, the AU, and the broader international community's commitment to upholding international law and the right to self-determination.

3 Renewable Energy Production Sources: Solar, Wind, and Hydrogen

Western Sahara possesses significant renewable energy potential, particularly in wind and solar power, with growing interest in green hydrogen production. Its geographical conditions—strong and consistent winds, high solar radiation, and vast uninhabited land—make it an attractive location for large-scale energy projects. According to the European Commission's 2022 report, as of 2023, Western Sahara will have the capacity to produce 900 MW of renewable energies, and this production exceeds its own requirements 200 - 250 MW /year [3]. However, these projects are being developed under an illegal occupation, in clear violation of international law.

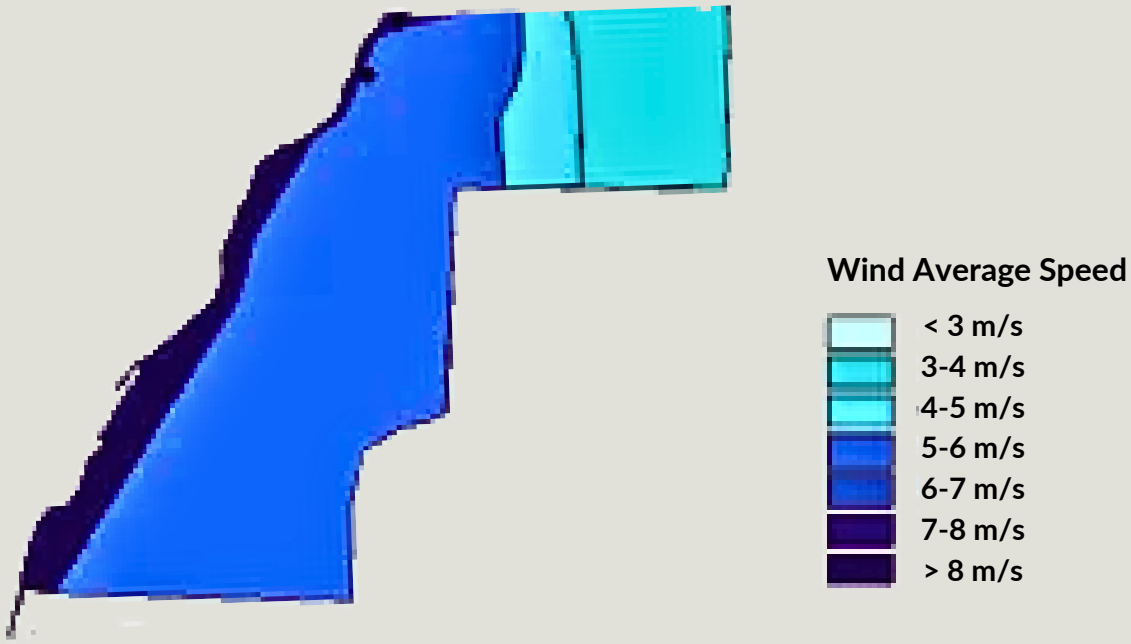
Morocco has continued to expand renewable energy infrastructure in occupied Western Sahara with the backing of foreign investors, multinational corporations, and governments, particularly in Europe. These actors prioritize energy security and economic gain over legal and ethical considerations. The large-scale expansion of these projects in Western Sahara serves to entrench Morocco's occupation by strengthening its economic control, financing its continued presence in the territory, and altering its demographic and political landscape.

[3] European Commission. (2022). SWD(2022) 448 final: 2022 report on the benefits for the people of Western Sahara on extending tariff preferences to products from Western Sahara. European Commission. https://taxation-customs.ec.europa.eu/report-impacts-and-benefits-eu-morocco-agreement-extending-tariff-preferences-products-originating_en

I Wind Energy: Morocco's Expansion in the Occupied Territory

Western Sahara has some of the best wind energy conditions in North Africa, with consistent and high wind speeds along its coastline and inland areas.

Morocco has capitalized on this by developing wind farms in key locations such as El Aaiun (Laayoune), Boujdour, Bou Craa and Dakhla. Among the most prominent projects is the wind farms near Boujdour, which generates significant electricity, Boujdour (300MW), Aftissat I (200 MW) and Aftissat II (200 MW). The Moroccan government has also signed agreements with international companies to expand wind energy production in the occupied Western Sahara, with firms such as the Polish company Green Capital identifying new sites for future wind farms in Bou Craa and in the vicinity of the city of Dakhla. Taqa company and Nereva also plans to build a wind farm with a capacity of (1200 MW) in occupied Western Sahara, and a 1400 km transmission line to transport the electricity to Morocco proper. In addition to German Siemens; Italian Enel Green Power and French companies Engie and Voltalia.



[Image 1]: Green European Journal. (2016). [Image of wind turbines in Western Sahara]. Dirty clean energy: Is Morocco's renewable energy from Western Sahara really green? https://www.greeneuropeanjournal.eu/dirty-clean-energy-is-moroccos-renewable-energy-from-western-sahara-really-green/



[Imag 2] Western Sahara Resource Watch. (2023, July 10). General Electric conflict windpark near completion. https://wsrw.org/en/news/general-electric-conflict-windpark-near-completion



[Image 3] Windpower Monthly. (2016, March 3). Siemens under fire for Western Sahara projects. Windpower Monthly. (2016, March 3). Siemens under fire for Western Sahara projects.

These wind energy projects are primarily designed to serve Moroccan economic and industrial interests, rather than benefiting the Sahrawi people. A significant portion of the electricity generated is used to power Moroccan-controlled industries, particularly the controversial phosphate mines in Bou Craa, which have long been a focal point of illegal resource extraction in occupied Western Sahara.

The wind park installed by Siemens Gamesa Renewable Energy since July 2013, in Foum El Oued provides about 99.8% of the energy needs of PhosBoucraa company used in illegal extraction and transporting of phosphates from Bou Craa mine [4].

Additionally, the surplus electricity produced in Western Sahara is exported to Morocco proper, further reinforcing its economic and energy security while depriving the Sahrawi people of control over their own resources.

The employment opportunities generated by these projects disproportionately benefit Moroccan settlers and companies, as hiring practices systematically exclude the Sahrawi people. Moreover, the infrastructure created for these energy developments, including roads and power transmission networks, further integrates the occupied territory of Western Sahara into Morocco's economy, making its withdrawal from Western Sahara increasingly difficult. This highlights the broader political function of renewable energy projects in the region: not only are they a source of revenue, but they also serve as a tool to consolidate Morocco's illegal occupation of the territory.

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[4] European Commission. (2018). 2018 report on the benefits for the people of Western Sahara and public consultation on extending tariff preferences to products from Western Sahara (SWD(2018) 346 final, p. 25). European Commission. https://eur lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2018:0346:FIN:EN:PDF

II Solar Energy: A Resource for Export, not for the Sahrawi People

Western Sahara also has exceptional solar energy potential, receiving some of the highest levels of solar radiation in the region. The duration of solar radiation is estimated at about 3000-3500 hours per year in most areas of Western Sahara and the level of solar radiation is 5.3 KW / h per square meter per year.

Morocco has implicated a number of foreign companies in illegal solar energy projects in Western Sahara, such as ACWA Power (Saudi Arabia), Chint Group (China), Shapoorji Pallonji (India), Sterling and Wilson Renewable Energy (India) [5].

Morocco has exploited this advantage by expanding its solar power production in the occupied territory, incorporating it into its broader renewable energy strategy. The Moroccan government has announced plans to install an additional 1.4 gigawatts of new solar and wind capacity in Western Sahara by 2027 [6].

As with wind energy, the primary beneficiaries of these solar projects are Morocco and its international partners. Morocco has been actively positioning itself as a key renewable energy exporter to Europe, with projects such as the planned subsea power cable to the United Kingdom designed to transmit electricity generated in Moroccan-occupied areas of Western Sahara. These developments raise serious legal and ethical concerns, as they involve the commercial exploitation of energy resources from a territory under military occupation.

Beyond legal violations, the construction and operation of solar farms contribute to the demographic transformation of the territory by attracting Moroccan settlers and workers while offering no benefit to the Sahrawi people.

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[5] GlobalData. (2025). Power plant profile: Noor Laayoune Solar PV Park, Morocco. GlobalData. https://www.power-technology.com/marketdata/power-plant-profile-noor-laayoune-solar-pv-park-morocco/

[6] Bloomberg. (2024). Morocco to double West Sahara green power output for World Cup. Bloomberg. https://www.energyconnects.com/news/renewables/2024/october/morocco-to-double-west-sahara-green-power-output-for-world-cup/

III Green Hydrogen: The Next Phase of Resource Exploitation

In addition to wind and solar energy, Morocco has identified Western Sahara as a strategic location for green hydrogen production. Green hydrogen, produced through the electrolysis of water using renewable energy, is expected to play a crucial role in global energy transitions, particularly in Europe.

A number of foreign companies have signed contracts with the Moroccan occupation authorities to invest in green hydrogen production projects in the occupied territories of Western Sahara, driven by the availability and diversity of renewable energy sources in the region, such as Acciona (Spain), hydrogen France HDF Energy (France), and Taqa (United Arab Emirates).

European countries, including Germany, have signed agreements with Morocco to explore green hydrogen production, viewing it as a key element of their long-term energy strategy.

However, much of the land designated for these projects lies within occupied Western Sahara, raising serious legal and environmental concerns. As with other renewable energy initiatives in the region, these hydrogen projects are being developed without the consent of the Sahrawi people, violating international law. The involvement of European governments and corporations in these ventures emboldens Morocco's illegal occupation and undermines Sahrawi rights.

Green hydrogen production also poses significant environmental challenges. The process requires vast amounts of water, a scarce resource in Western Sahara. Large-scale hydrogen production could further deplete local water reserves, exacerbating an already fragile ecological balance and intensifying water scarcity issues for local communities. These projects are not being developed to serve the energy or water needs of the Sahrawi people but rather to meet the growing European demand for hydrogen, reinforcing the colonial pattern of resource extraction at the expense of the people's rights.

V Green Ammonia Project in Occupied Western Sahara

Morocco's state-owned OCP Group has announced plans for a massive green ammonia [7] production facility as part of the "Tarfaya-Bu Craa-Laayoune axis" project. The facility, to be developed between Laayoune and Tarfaya in the occupied territory of Western Sahara, is projected to cost $7 billion and is being promoted as a renewable energy-driven industrial initiative.

The project will rely entirely on renewable energy sources, integrating a 2.8 GW wind farm, a 1 GW solar power plant, and a 2.7 GWh battery storage system over an area exceeding 100,000 hectares. Additionally, a desalination plant powered by renewable energy, with a capacity of 60 million cubic meters per year, will be constructed to provide water for industrial operations, including the production of green ammonia.

The scale and ambition of the project have attracted international interest, with French energy giant Engie and Australian mining company Fortescue publicly expressing their intent to participate. These corporations, both major players in the global green hydrogen and renewable energy markets, see the project as an opportunity to expand their involvement in the growing ammonia sector, which is gaining momentum as a low-carbon alternative for fuel and fertilizer production.

While green ammonia is a promising alternative for clean energy and sustainable agriculture, its development in occupied Western Sahara is fraught with political and legal controversy. By pushing forward this massive project, Morocco is undermining international legal rulings that affirm the Sahrawi people's right to self-determination.

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[7] Hernandez, A. (2024). TotalEnergies studies Moroccan project to export green ammonia to Europe. Reuters. https://www.reuters.com/business/energy/totalenergies-studies-moroccan-project-export-green-ammonia-europe-2024-10-29/

IV A Renewable Energy Future Built on Occupation

While the transition to renewable energy is an essential global priority, the development of wind, solar, and hydrogen projects in occupied Western Sahara represents a continuation of illegal resource exploitation rather than a genuine effort at sustainable development. These projects are designed to serve Moroccan and foreign interests, generating revenue for the occupying power while further entrenching its presence in the territory and greenwashing the occupying force. They do not provide energy access, employment opportunities, or economic benefits to the Sahrawi people, who remain deprived of their inalienable right to self-determination, excluded from decision-making and denied their right to manage their own resources.

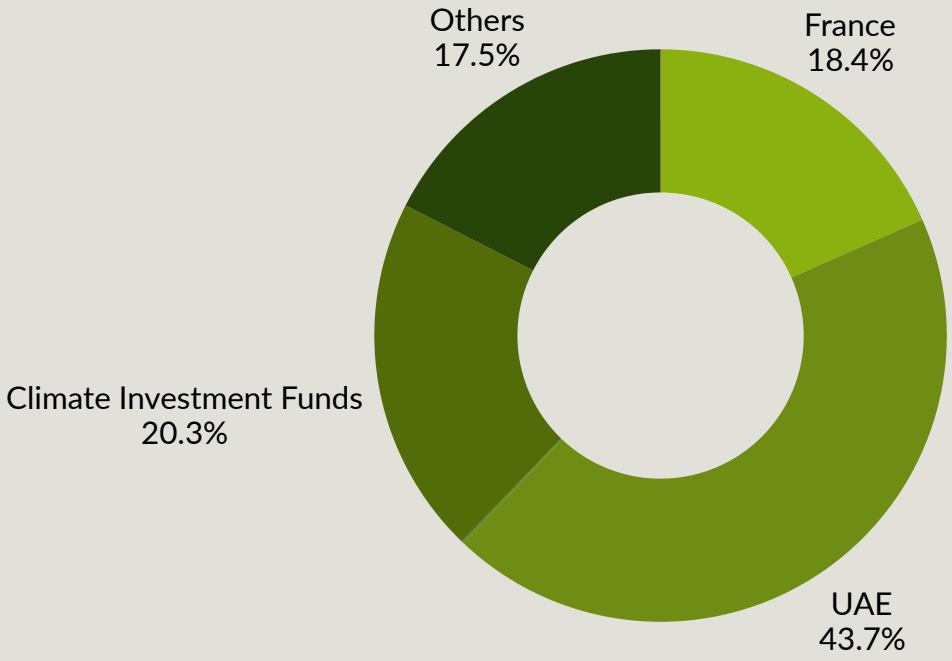
The Sahrawi people have consistently rejected Morocco's exploitation of their land and have called for an immediate end to foreign investment in energy projects in the occupied territory of Western Sahara. The Court of Justice of the European Union has repeatedly affirmed that no economic activity in Western Sahara can take place without the consent of its people, yet governments and corporations continue to ignore these rulings in pursuit of profit and short-term interests.



[Image4] Africa Energy. (2024). Morocco gears up for green hydrogen push in disputed Western Sahara. Africa Energy. https://www.africa-energy.com/news-centre/article/morocco-gears-green-hydrogen-push-disputed-western-sahara

4 Stakeholders and Parties Involved in Renewable Energy Projects in Western Sahara

The development of renewable energy projects in Western Sahara involves a complex network of stakeholders, including Moroccan state and private agencies, international corporations, and foreign governments. These entities contribute negatively to the progression of energy initiatives within the occupied Western Sahara, frequently raising substantial legal and ethical concerns due to the territory's status as a Non-Self-Governing Territory awaiting decolonization.



Proportional Distribution of Renewable Energy Investments in Western Sahara by Donor Entity

I Moroccan State and private Agencies

At the forefront of Morocco's renewable energy agenda is the Moroccan Agency for Sustainable Energy. MASEN oversees the country's renewable energy programs, aiming to add substantial clean electricity generation capacity. The agency's objectives include integrating renewable energy sources into Morocco's national grid, with projects extending into Western Sahara. In occupied Western Sahara, three wind farms are in operation, a fourth is under construction in Boujdour, and several others are planned. These wind farms are owned by Nareva, a wind energy company belonging to the Moroccan royal family's holding company. Besides, the Office National de l'Électricité et de l'Eau Potable (ONEE), the Energy Investment Company (SIE), and the King Hassan II Fund, are all state-owned operating in Western Sahara in the field of renewable energy projects.

masen
endless power for progress



[Image 5] Western Sahara Resource Watch. (2016). New photo shows deal for solar plants in occupied Western Sahara signed at COP22. https://wsrw.org/en/archive/3672

II International Corporations

Several multinational companies are actively engaged in renewable energy projects in Western Sahara:

- ***Engie** [8]:* French energy multinational Engie has become involved in reinforcing Morocco's occupation of Western Sahara through renewable energy projects. In November 2023, Engie announced it had started commercial operations at the Tiskrad wind farm, located near Laayoune. The Tiskrad project, developed in partnership with Moroccan state-owned company Nareva, has a production capacity of 100 megawatts (MW). The generated electricity is used to supply Morocco's national grid, further integrating the resources of Western Sahara into Morocco's economy. In addition, Engie has reportedly been involved in preparing further energy infrastructure in the territory, signalling an ongoing expansion of activities, in contravention of international legal principles concerning non-self-governing territories.
- ***Enel Green Power** [9]:* Italian multinational Enel Green Power has also contributed to the expansion of renewable energy infrastructure in occupied Western Sahara. In partnership with Moroccan state-owned company Nareva and Qatar's QIA, Enel Green Power was awarded the construction and operation of wind farms as part of Morocco's Integrated Wind Energy Project. This includes the Boujdour wind farm, located in the occupied Western Sahara, with an installed capacity of 300 megawatts (MW). Construction for the Boujdour project started in 2021, and it is one of the largest energy projects ever developed in Western Sahara. By participating in these ventures, Enel Green Power not only profits from Morocco's illegal occupation but also reinforces Morocco's strategy of integrating the natural resources of Western Sahara into its national economy, in disregard of international law and the Sahrawi people's right to self-determination.

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[8] Western Sahara Resource Watch. (2025). Engie starts power production on occupied land. Western Sahara Resource Watch. https://wsrw.org/en/news/engie-starts-power-production-on-occupied-land
[9] Business & Human Rights Resource Centre. (2025). Report warns wind energy companies from engaging in Western Sahara without consent. https://www.business-humanrights.org/en/latest-news/moroccowestern-sahara-report-warns-wind-energy-companies-from-engaging-in-projects-in-western-sahara-without-consent-of-local-communities/

- ***Siemens Gamesa Renewable Energy** [10]:* German-Spanish company Siemens Gamesa has played a central role in supporting Morocco's renewable energy projects in occupied Western Sahara. The company has supplied and installed wind turbines for several wind farms in the territory, including the Foum el Oued wind farm near Laayoune, with a capacity of 50 megawatts (MW). The electricity generated is primarily used to power Morocco's illegal phosphate mining operations at Bou Craa, a key economic driver of the occupation. Siemens Gamesa has continued to service and maintain these facilities, despite repeated calls from Sahrawi representatives and international civil society to withdraw from activities that entrench Morocco's control over the territory. Furthermore, Siemens Gamesa has been linked to new projects under development in the region, such as its involvement in the larger 900 MW wind program commissioned by Morocco's agency MASEN and the national utility ONEE, some parts of which are expected to be located in occupied Western Sahara.
- ***MGH Energy** [11]:* An European company focusing on sustainable fuels, MGH Energy, through its subsidiary MGH Energy Maroc, has initiated projects in the Dakhla region of Western Sahara. These initiatives aim to harness solar and wind energy to produce renewable synthetic fuels, aligning with global decarbonization efforts.
- ***Voltalia** [12]:* A French renewable energy firm, has been involved in projects in occupied Western Sahara. In 2020, Voltalia initiated the development of a 75 MW wind farm in the Ghrad Jrad area near El Aaiún, the largest city in Western Sahara. The project is managed through its subsidiaries, Voltalia Maroc and VLT Investment 6 B.V., under the joint venture "Parc Eolien de Ghrad Jrad SAS".
- ***Gesto Energy** [13]:* A Portuguese energy consulting firm, has been involved in renewable energy assessments in Morocco. In 2019, Gesto was contracted by Morocco's National Office of Hydrocarbons and Mines (ONHYM) to evaluate the geothermal potential in the Western Sahara an area encompassing more than 140,000 square kilometers, which includes parts of occupied Western Sahara territory.
- ***Hitachi Ltd. (Japan)**[14]:* through its subsidiary Hitachi Energy Ltd. (Switzerland), is involved in energy infrastructure projects in occupied Western Sahara. After acquiring ABB's power grid division, Hitachi Energy became the main actor in projects like the Aftissat wind farm near Boujdour.

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[10] Transnational Institute. An Unjust Transition: Energy Colonialism and Extractivism in Occupied Western Sahara. 2022 https://www.tni.org/en/article/an-unjust-transition.
[11] ESI Africa. (2024). Morocco: Another renewable energy project in disputed Western Sahara. https://www.esi-africa.com/renewable-energy/morocco-another-renewable-energy-project-in-disputed-western-sahara/
[12] Western Sahara Resource Watch. (2020). Voltalia to construct wind farm in occupied Western Sahara. https://wsrw.org/en/news/voltalia-to-construct-wind-farm-in-occupied-western-sahara
[13] Western Sahara Resource Watch. (2020). Portugal energy consultants fail in geography. https://wsrw.org/en/archive/4531
[14] https://www.hitachienergy.com/about-us/company-profile/our-story

- ***Soluna Technologies** [15]:* A U.S.-based blockchain and renewable energy company, has been involved in a controversial project in occupied Western Sahara. The company planned to develop a 900 MW wind farm near Dakhla to power a blockchain computing facility
- ***Vigeo Eiris** [16]:* A French company that certified a Saudi-Moroccan solar project in Western Sahara. When criticized, Vigeo Eiris claimed that withdrawing the certification could be seen as a political decision inconsistent with their position as an independent research provider.
- ***ACWA Power (Saudi Arabia)** [17]:* The partially state-owned Saudi company ACWA Power signed an agreement with MASEN to build a 100 MW solar power inside the occupied Western Sahara.
- ***Chint Group (China):*** Chint Group, a Chinese smart energy solutions provider, is involved in Western Sahara as a technical partner in building two solar energy plants, "Noor Laayoune" (80 MW) and "Noor Boujdour" (20 MW), in a joint project with Saudi Arabia's ACWA Power.
- ***Shapoorji Pallonji (India):*** Together with other companies, won the bid to develop, build and operate the three plants under a BOOT (Build, Operate, Own and Transfer) scheme in Western Sahara.
- ***Sterling and Wilson Reneweble Energy (India)** [18]:* Sterling & Wilson, an Indian engineering, procurement, and construction (EPC) firm, has been involved in renewable energy projects in occupied Western Sahara. In 2016, the company secured a contract to construct three photovoltaic plants under Morocco's NOOR PV I program, including an 80 MW plant in Laâyoune and a 20 MW plant in Boujdour. These projects were part of Morocco's broader initiative to increase its renewable energy capacity.
- ***Taqa company (UAE)** [19]:* The Abu Dhabi National Energy Company, announced plans in 2024 to invest $10 billion in a 6 GW green hydrogen project in Morocco. The project is expected to be located in occupied Western Sahara. Taqa with Nereva firm were officially awarded a contract to construct a 1200MW wind power capacity in occupied Western Sahara. This initiative has been met with criticism from human rights organizations, which urge companies to respect international law and the rights of the Sahrawi people.

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[15] Hynes, I. (2018). US blockchain firm embroiled in controversy over energy project in Western Sahara. https://blocktelegraph.io/us-blockchain-firm-embroiled-controversy-energy-project-western-saha
[[16] Hamouchene, H. (2023). How renewables corporations are exploiting the Global South. https://newint.org/story/climate/2024/01/02/how-renewables-corporations-are-exploiting-global-south
[17] Western Sahara Resource Watch. (2016). Deal for solar plants in occupied Western Sahara signed at COP22. https://wsrw.org/en/archive/3672
[18] Staff Writer. (2016). Sterling, Wilson to build 170MW solar PV project in Morocco. https://www.nsenergybusiness.com/news/newssterling-and-wilson-wins-epc-contract-for-170-mw-solar-pv-project-in-morocco-5679444/
[19] Martin, P. (2024). Emirati national energy company to invest $10bn into 6GW Moroccan green hydrogen project. https://www.hydrogeninsight.com/production/emirati-national-energy-company-to-invest-10bn-into-6gw-moroccan-green-hydrogen-project/2-1-1577795

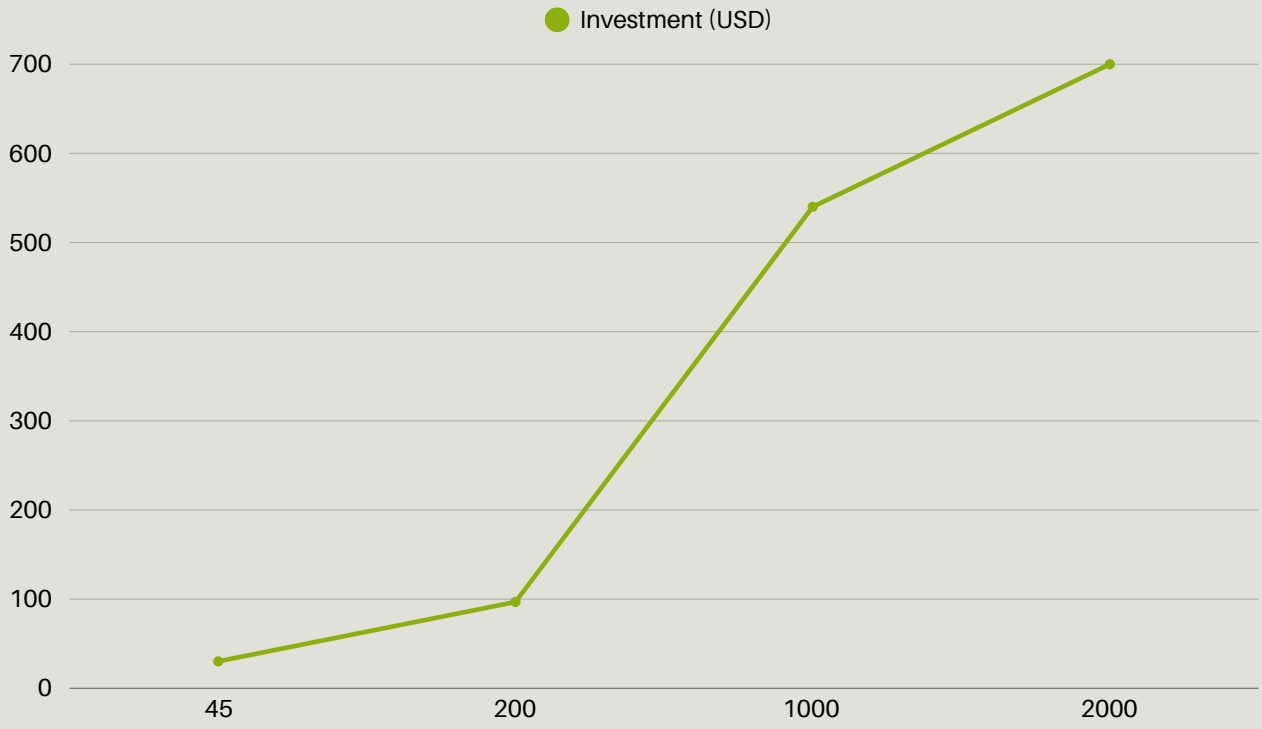
- ***ORNX Consortium:*** Made up of Ortus (United States), Acciona (Spain) and Nordex (Germany). It focuses on the production of ammonia, which can be used as a hydrogen carrier and as a fuel in internal combustion engines and fuel cells, constituting a more manageable alternative to pure hydrogen.
- ***A consortium formed by Cepsa (Spain) and Taqa Morocco:*** Focused on the production of ammonia and synthetic fuels.
- ***UEG Consortium and China Three Gorges:*** Which focuses on ammonia production.
- ***Envision Energy [20]:*** a Chinese wind turbine manufacturer, has supplied windmill components for renewable energy projects in occupied Western Sahara. In 2023, the company provided equipment for a wind-powered desalination plant near Dakhla, developed by ENGIE. This involvement has raised concerns regarding the legality and ethical implications of operating in a non-self-governing territory without the explicit consent of the Sahrawi people.
- ***Hydrogen de France (HDF) [21]:*** A French energy company, announced plans in 2023 to participate in a large-scale green hydrogen production project in occupied Western Sahara. The project aims to produce renewable synthetic fuels using green hydrogen, contributing to Morocco's efforts to integrate Western Sahara into its national energy strategy.
- ***Total Energies [22]:*** The French multinational is exploring renewable energy projects in Morocco, including regions within Western Sahara. Total Energies aims to produce hydrogen and green ammonia for export to Europe, contributing to the European Union's Green Deal objectives.
- ***Acciona [23]:*** A Spanish renewable energy company, has been selected by the Moroccan government to develop green hydrogen projects in the Sahara region. While specific project details have not been disclosed, Acciona's involvement in renewable energy initiatives occupied Western Sahara territories has raised concerns regarding the legality and ethical implications of such operations.

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[20] Western Sahara Resource Watch. (2023). Chinese firm to supply Engie with conflict windmills. https://wsrw.org/en/news/chinese-firm-to-supply-engie-with-conflict-windmills
[21] Western Sahara Resource Watch. (2023). HDF Energy announces dirty green hydrogen plans on occupied land. https://wsrw.org/en/news/hdf-energy-announces-dirty-green-hydrogen-plans-on-occupied-land
[22] Africa Energy Portal. (2024). TotalEnergies, Morocco team up for green hydrogen breakthrough. https://africa-energy-portal.org/news/totalenergies-morocco-team-green-hydrogen-breakthrough
[23] Western Sahara Resource Watch. (2013). Wind energy companies silent on controversial plans. https://wsrw.org/en/a105x2634

5 Financial Aspects: Investment and Revenues in Renewable Energy Projects in Western Sahara

The development of renewable energy projects in Western Sahara has attracted significant financial investments from various stakeholders, including Moroccan state agencies, international corporations, and foreign governments. These investments aim to harness the region's substantial renewable energy potential, particularly in wind and solar power, to meet both domestic energy needs and export demands.



Investment per Energy Output of Renewable Projects (GWh vs USD)

I Major Investments: Moroccan Government Initiatives

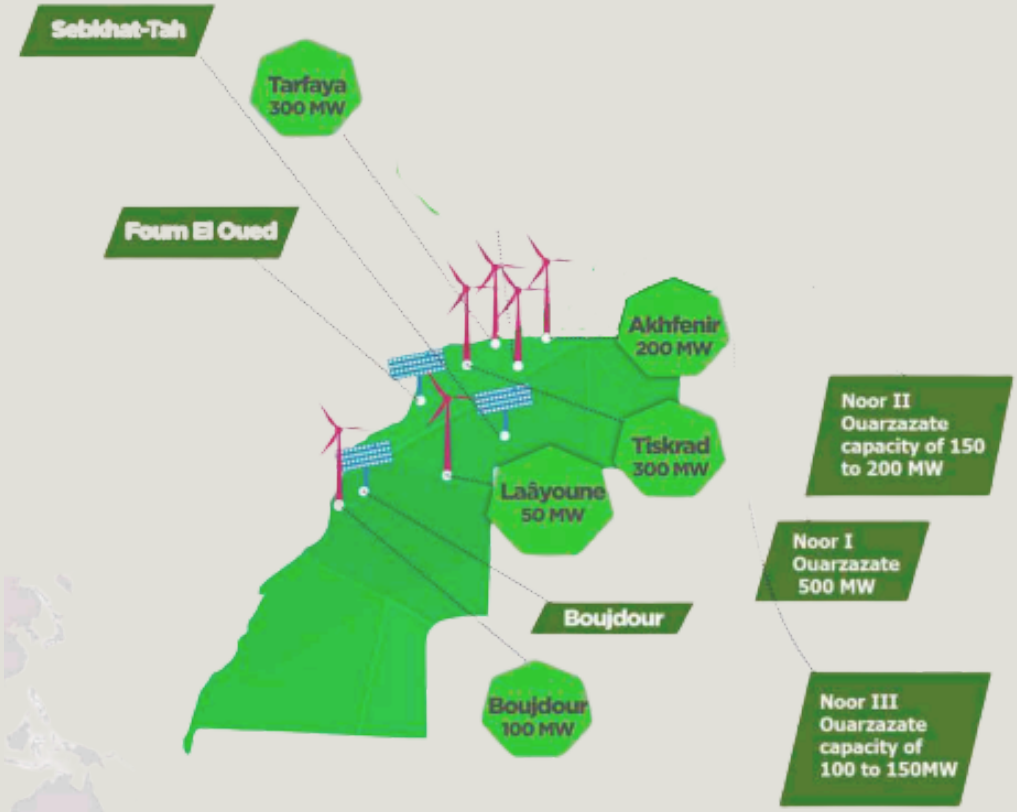
Morocco is significantly investing in renewable energy in the occupied Western Sahara as part of its strategy to boost its energy infrastructure. As of 2024, the Morocco government is allegedly planning a $2.1 billion investment in new infrastructure projects in occupied Wester Sahara. These projects are developed under Law No. 13-09 on renewable energy [24].

Wind Energy Investments :

- ***Boujdour Wind Farm (300 MW)*** *– $5.4 million, 1,000 GWh annually, operational in 2022.*
- ***Aftissat Wind Farms I & II (401.6 MW)*** *– $7 million, 2,000 GWh annually.*
- ***Foum El Oued Wind Farm (50.6 MW)*** *– $80 million, operational since 2014.*
- ***Dakhla Wind Farm (40 MW)*** *– $170 million, supports 5,000 hectares of agriculture.*

Solar Energy Investments:

- ***Noor Boujdour I (20 MW)*** *– $30.2 million, 45 GWh, operational since 2018.*
- ***Noor Boujdour II (350 MW)*** *– (Investment undisclosed), commissioning in 2023.*
- ***Noor Laayoune I (85 MW)*** *– $96.8 million,, 200 GWh, operational since 2018.*



[24] Ministry of Energy Transition – Morocco. (2025). Sector overview. https://www.mem.gov.ma/Pages/secteur.aspx?e=2&prj=3

[Image 6]: Green European Journal. (n.d.). [Image of solar infrastructure in Western Sahara]. Dirty clean energy: Is Morocco's renewable energy from Western Sahara really green? https://www.greeneuropeanjournal.eu/dirty-clean-energy-is-moroccos-renewable-energy-from-western-sahara-really-green/

Total Installed Capacity & Financial Estimation :

Energy Type	Installed Capacity (MW)	Annual Production (MWh)	Price per MWh (USD)	Annual Revenue (USD)
Wind Energy	792.2 MW	1,584,400 MWh	$82.4	$1.31 billion
Solar Energy	455 MW	773,500 MWh	$82.4	$636.9 million
Total	**1,247.2 MW**	**2,357,900 MWh**	**82.40 USD**	**$1.95 billion**

II Total Investment:

Billions of dollars invested in renewable energy projects, strengthening Morocco's economic and energy presence in Western Sahara.

France: France has emerged as a leading foreign investor in Morocco's renewable energy and infrastructure sectors, including in the occupied territories of Western Sahara. In early 2024, French President Emmanuel Macron announced a €10 billion investment plan in Morocco, a significant portion of which is allocated to projects in the occupied Western Sahara—particularly in Dakhla and the Guelmim-Oued Noun region [25]. These initiatives aim to support the development of large-scale renewable energy projects (notably solar and wind farms), desalination infrastructure, and transport connectivity, positioning the region as a future export hub for green hydrogen [26]. Additionally, the French Development Agency (Agence Française de Développement, AFD) has taken a prominent role in financing key Moroccan economic sectors. In 2024, AFD granted a €350 million loan to the Moroccan state-owned phosphate company OCP Group, aimed at supporting its decarbonization strategy and expansion of green fertilizer production [27]. Notably, the OCP operates in the Bou Craa mine in Western Sahara, a region whose phosphate extraction has been subject to legal and ethical scrutiny.

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[25] Jeune Afrique. (2024). Macron annonce un plan d'investissement de 10 milliards d'euros au Maroc. Retrieved from https://www.jeuneafrique.com

[26] Le Monde. (2024). La France renforce sa présence économique au Maroc et au Sahara occidental. Retrieved from https://www.lemonde.fr

[27] Agence Française de Développement. (2024). AFD grants €350 million loan to OCP for green transformation. Retrieved from https://www.afd.fr

AFD has also recently announced an additional €150 million investment package targeting Morocco's so-called "southern provinces," a term used by the Moroccan government to refer to the occupied areas of Western Sahara. These funds are reportedly earmarked for infrastructure and sustainable development initiatives, further entrenching economic integration of the occupied Western Sahara into Morocco's national development plans[28]. France's ongoing economic engagement in Western Sahara raises serious questions about corporate and state complicity in the continued occupation. This involvement not only undermines efforts towards a peaceful resolution of the conflict but also risks legitimizing resource extraction in defiance of the Sahrawi people's rights.

Saudi Arabia: Saudi owned government companies too are implicated in the entrenchment of the occupation of Western Sahara through the development of renewable energy. In November 2016, at the time of the COP22 climate talks in Marrakesh, Saudi company ACWA Power signed agreements to develop renewable energy projects in occupied Western Sahara, contributing to Morocco's efforts to legitimize and economically integrate the territory under its control. In total, $2.8 billion represents the primary known investments by Saudi Arabia in Morocco's renewable energy sector from 2016 to 2025. Additional investments may exist but are not publicly disclosed [29].

The United Arab Emirates (UAE): UAE has made significant investments in the renewable energy sector in the occupied Western Sahara, particularly in Dakhla. One of the largest projects is a joint venture led by Emirati and Moroccan entities, including Dahamco, which is set to invest approximately $25 billion in green hydrogen and ammonia production. The first phase, valued at $4.04 billion, aims to produce one million tonnes of green hydrogen and ammonia annually, with operations expected to commence by 2031 [30].

Kuwait: In 2010, the Kuwaiti government, through the Kuwait Fund for Arab Economic Development (KFAED), provided a $69 million loan to Morocco to finance the development of electricity transmission infrastructure between Tan-Tan and Laâyoune, in the occupied territories of Western Sahara. This investment, which supports the integration of renewable energy such as wind and solar into Morocco's national grid, included the construction of a 320-kilometer, 400 kV transmission line and the expansion of substations in Laâyoune and Boujdour areas situated within occupied Western Sahara. While framed as a contribution to sustainable development, such funding raises serious concerns under international law, particularly with respect to the Sahrawi people's right to self-determination and permanent sovereignty over their natural resources [31].

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[28] Agence Française de Développement. (2024). AFD announces €150 million investment in Morocco's southern regions. Retrieved from https://www.afd.fr

[29] ACWA Power. (2024, November 7). Retrieved from .https://www.acwapower.com/news/acwa-power-announces-its-financial-results-for-the-three-and-nine-months-period-ended-30-september-2024-en/

[30] Enerdata. (2024, December 13). Dahamco moves ahead with a 1 Mt/year green hydrogen and ammonia project in Dakhla. Retrieved from https://www.enerdata.net

[31] Hespress. (2010, October 21) [Kuwait grants Morocco a $69 million loan to strengthen the electricity grid in the southern provinces]. Retrieved https://www.hespress.com/الكويت-تمنح-المغرب-قرضا-بـ-69-مليون-دولا-37545.html

Climate Investment Funds (CIF) Contributions:

Climate Investment Funds (CIF) Contributions [32]:

Morocco has significantly engaged with the Climate Investment Funds (CIF) to support what they refer to as their renewable energy projects and climate resilience initiatives. The total funding allocated to Morocco from CIF is as follows:

- **Total CIF Funding Received: $629.6 million**
- **Expected Co-Financing: Approximately $10.97 billion**

While officially framed as part of Morocco's national climate strategy, portions of this funding are being directed toward large-scale renewable energy projects in occupied Western Sahara. The deployment of climate finance in occupied territory, without the free, prior, and informed consent of the Sahrawi people, raises serious legal and ethical concerns. Such initiatives risk legitimizing resource exploitation in violation of international law, including the principles set out by the United Nations regarding the rights of peoples under occupation. It also contributes to greenwashing, whereby sustainability narratives are used to obscure and normalize the expansion of Morocco's presence in Western Sahara, rather than genuinely advancing climate justice and decolonization.

Key Projects Supported by CIF:

1. **Wind Energy Development:** CIF has provided financial support to increase Morocco's wind energy capacity by 1,070 MW. This initiative focuses on establishing the infrastructure required to make wind energy commercially viable in Morocco, including projects in the occupied territory of Western Sahara, where wind farms are being developed.
2. **Solar Photovoltaic (PV) Initiatives:** The CIF has also contributed to the deployment of 75–100 MW of solar photovoltaic plants in Morocco. This effort promotes the adoption of solar PV technology across the country, with the potential to expand to occupied Western Sahara, leveraging its vast desert areas for solar power generation.
3. **Climate-Smart Recovery Post-COVID-19:** In 2021, CIF's Technical Assistance Facility (CTF-TAF) allocated $200,000 to assist Morocco in developing climate-smart policies aimed at a green recovery after the COVID-19 pandemic. These policies support what so called renewable energy development in occupied Western Sahara.

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[32] Climate Investment Funds. (2025). Investing in Morocco. https://www.cif.org/country/morocco#:~:text=INVESTING%20IN%20MOROCCO,-CIF's%20investment%20in&text=Its%20CTF%20concessional%20financing%20is,make%20wind%20energy%20commercially%20viable

6 The Aftermath: Legal, Ethical, and Geopolitical Implications of Green Energy Projects in Western Sahara









[Images : 7, 8, 9 and 10] : Western Sahara Resource Watch. (n.d.). [Images of resource exploitation in Western Sahara]. Western Sahara Resource Watch. https://wsrw.org/en/the-resource-curse

I Legal and Ethical Considerations

The expansion of renewable energy projects in Western Sahara, including large-scale green hydrogen and ammonia initiatives, raises significant legal and ethical concerns. While these projects are promoted as part of Morocco's green transition and climate strategy, they are being developed in a territory under occupation, where economic activities involving natural resources must adhere to international legal standards.

Under international law, resource exploitation in a non-self-governing territory requires the explicit consent of its people, represented in this case by the Polisario Front. The development of renewable energy infrastructure in Western Sahara without this consent constitutes a violation of international legal norms, including the UN Guiding Principles on Business and Human Rights.

Moreover, while renewable energy is often framed as a solution to global environmental challenges, its implementation in occupied Western Sahara risks becoming another form of resource exploitation. These projects primarily serve Moroccan economic interests and European energy markets, reinforcing Morocco's control over the occupied territory. The Sahrawi people, who have a legitimate right to self-determination, are systematically excluded from decision-making processes and economic benefits, exacerbating their political and economic marginalization.

Beyond legal violations, the development of wind, solar, and hydrogen infrastructure in Western Sahara raises ethical questions about corporate responsibility and sustainable development. International companies and investors engaging in these projects must assess whether their involvement contributes to perpetuating an illegal occupation or undermining the rights of the people. The principles of a just energy transition should include transparency, accountability, and respect for the rights of indigenous and occupied peoples, yet these standards are absent in the current trajectory of Morocco's energy plans in Western Sahara.

II Geopolitical Dynamics and Foreign Investments

The involvement of foreign investors and multinational corporations in renewable energy projects in Western Sahara introduces broader geopolitical implications. Companies from France, Italy, Germany, and other international actors have expressed interest in these initiatives, despite the territorial and legal disputes surrounding Western Sahara.

France, in particular, has long been a key political and economic ally of Morocco, and French companies such as Engie are actively involved in Moroccan energy projects, including in occupied Western Sahara. Similarly, Australian company Fortescue has shown interest in partnering with Moroccan entities on hydrogen projects, raising concerns about the legitimacy of international investments in the region. These foreign partnerships not only provide financial and technological support for Morocco's energy ambitions but also risk being interpreted as political backing for Morocco's sovereignty claims over Western Sahara.

By supporting Morocco's renewable energy expansion in the region, these investments risk being perceived as legitimizing Moroccan claims over Western Sahara, complicating diplomatic efforts to resolve the conflict. Furthermore, while European institutions have ruled against Morocco's inclusion of Western Sahara in trade agreements, European companies and financial institutions continue to engage in energy projects in the territory, raising questions about policy consistency and legal accountability.

This growing energy infrastructure also has strategic implications for Europe, which is increasingly seeking to diversify its energy sources and reduce reliance on fossil fuels. Morocco has positioned itself as a key player in supplying Europe with green hydrogen, and projects in Western Sahara are integral to this strategy. However, European dependence on Moroccan energy could further entrench the occupation by providing Morocco with economic leverage and diplomatic support from key European states. For international actors involved, this presents both legal risks and reputational challenges. Investors and corporations participating in these projects without obtaining Sahrawi consent may face legal scrutiny, potential litigation, and damage to their corporate reputations for violating international law and ethical business standards.

As global demand for renewable energy grows, it is imperative that sustainability efforts align with legal and human rights obligations. A just and responsible green transition cannot come at the expense of violating the rights of the Sahrawi people or sustaining an illegal occupation. Ensuring that renewable energy projects respect the principles of self-determination and fair resource management is essential for achieving a truly sustainable and ethical global energy transition.

7 Socioeconomic and Environmental Implications of Resource Exploitation in Occupied Western Sahara

Morocco's ongoing exploitation of renewable energy and natural resources in Western Sahara has a profound socioeconomic and environmental repercussions. These activities not only contravene international law but also perpetuate human rights violations and ecological disruptions, both locally and globally.



Land grabbing> the demolition of Sahrawi houses by Morocco's authoroties. Photo by Hsanna Duihi, Sahrawi Activist



[Image 11]: Western Sahara Resource Watch. (n.d.). CIMAR 5MW wind farm powering Indusaha cement plant in El Aaiun, installed by Siemens Gamesa. https://wsrw.org/en/news/renewable-energy

I Land Appropriation and Socioeconomic Exclusion

The Moroccan state, through state-owned and affiliated companies, has initiated expansive renewable energy projects in occupied Western Sahara, notably in the form of large-scale wind and solar farms. These projects—such as those in the regions Foum El Oued, and Aftissat—form part of Morocco's broader strategy to position itself as a renewable energy leader in the region and a future exporter of green hydrogen to Europe. However, the development of these infrastructures has entailed the expropriation of vast tracts of Sahrawi land without consultation or compensation, in violation of the legal obligations owed to the people of the territory under international law.

The socioeconomic impacts are significant. Sahrawi communities are systematically excluded from these projects, both in terms of governance and economic benefit. Employment opportunities are primarily extended to Moroccan settlers, and procurement contracts are allocated to companies aligned with Moroccan interests. The result is the economic marginalization of the Sahrawi people, many of whom face high rates of unemployment, limited access to basic services, and the erosion of traditional livelihoods, particularly those tied to nomadic pastoralism.

Furthermore, the increasing militarization and securitization of zones around energy installations have restricted movement and exacerbated tensions in already fragile communities. For women and youth, the loss of land-based livelihoods translates into heightened dependency, reduced autonomy, and increased vulnerability to exploitation and displacement.

II Systematic Human Rights Violations

The exploitation of resources in Western Sahara is facilitated by a broader context of systemic and institutionalized human rights violations committed by the Moroccan state against the Sahrawi people. **These include:**

- **Arbitrary arrest and detention of activists, journalists, and human rights defenders.**
- **Suppression of peaceful protests and demonstrations, often through excessive use of force.**
- **Torture and ill-treatment of detainees in custody.**
- **Restrictions on freedom of expression, association, and movement, particularly for those who speak out against the occupation or resource exploitation.**

Numerous reports from reputable international human rights organizations—including Human Rights Watch, and the Office of the High Commissioner for Human Rights—have documented these abuses. However, the absence of a UN mechanism to monitor human rights in the territory has allowed these violations to persist with impunity. The United Nations Mission for the Referendum in Western Sahara (MINURSO) remains the only UN peacekeeping mission without a human rights mandate, a structural omission that continues to shield Morocco from international scrutiny.

The repression of civil society, particularly those who oppose the exploitation of Sahrawi resources, is a key strategy employed by the occupying power to maintain control and suppress dissent. This environment of fear and coercion directly undermines the possibility of fair, transparent, and participatory economic governance in the territory.

III Environmental Disruption and Climate Injustice

The environmental implications of Morocco's energy and mining ventures in Western Sahara are increasingly visible. The construction and operation of renewable energy infrastructure—though touted as sustainable—require significant land transformation and ecosystem disruption. Key environmental impacts include:

- **Habitat fragmentation, particularly affecting migratory birds, small mammals, desert reptiles, and rare flora. These disruptions can also impact key pollinators like native bees and insects, essential to the desert ecosystem's resilience.**
- **Soil erosion and compaction, caused by the installation of turbines, solar arrays, and access roads, which degrade fragile desert surfaces and threaten burrowing species such as the Saharan silver ant and various scorpion species.**
- **Water depletion, as emerging green hydrogen initiatives anticipate drawing substantial freshwater resources from an already water-scarce desert environment. This places additional stress on aquifers vital to endemic amphibians and the few remaining desert-adapted freshwater species.**

These disruptions compound the region's ecological fragility and threaten the long-term sustainability of both human and natural systems. Additionally, desert ecosystems are known for their slow recovery rates, meaning that even temporary degradation can produce long-term or irreversible consequences. The Sahrawi people, which relies on access to natural resources for pastoralism, small-scale agriculture, and water collection, is disproportionately affected by these environmental changes. The lack of environmental impact assessments conducted with Sahrawi participation further deepens the injustice of these developments.

What is unfolding in Western Sahara is not a model of sustainable development—it is a clear example of climate injustice. The green transition is being used as a tool of occupation, enabling Morocco to consolidate control over the territory under the guise of environmental leadership. By exploiting land and resources without consent, Morocco and its partners are reinforcing patterns of colonial extraction, dispossession, and inequality.

International complicity deepens this injustice. Despite legal rulings invalidating economic agreements that include Western Sahara without Sahrawi consent, foreign companies and governments continue to invest in resource projects in the territory. These investments lend legitimacy to the occupation and undermine global norms related to self-determination, ethical investment, and climate accountability.

8 Recommendations

Based on the legal, socioeconomic, and environmental analysis presented in this report, the following recommendations are proposed to ensure alignment with international law, respect for human rights, and the protection of Western Sahara's natural resources.

To Governments and International Institutions



- ***Uphold International Law:*** Recognize and enforce the rulings of the Court of Justice of the European Union (CJEU) and the African Court on Human and Peoples' Rights, which affirm the Sahrawi people's right to self-determination and prohibit resource exploitation without their consent.
- ***End Economic Complicity:*** Cease trade agreements, investment projects, and financial mechanisms that include Western Sahara without explicit consent from the Sahrawi people, as required by international law
- ***Strengthen Accountability:*** Establish mechanisms to monitor and prevent corporate complicity in the illegal exploitation of Western Sahara's resources, ensuring that companies and financial institutions comply with international legal standards.
- ***Ensure Climate Finance Integrity:*** Reform international climate finance frameworks under the UN Framework Convention on Climate Change (UNFCCC) to exclude projects in Western Sahara, preventing the misuse of global climate funds to legitimize Morocco's occupation.
- ***Expand UN Oversight:*** Grant the United Nations Mission for the Referendum in Western Sahara (MINURSO) a human rights monitoring mandate to document and address violations linked to resource exploitation.

To Financial Institutions and Development Banks



- ***End Funding for Illegal Projects:*** International financial institutions must withdraw support from projects in Western Sahara, particularly those in the renewable energy and extractive industries.
- ***Implement Ethical Investment Policies:*** Investors should adopt policies preventing financial engagement in occupied territories and ensuring compliance with human rights standards.
- ***Increase Transparency:*** Require companies receiving investment to disclose whether their projects are located in occupied territories.

To the UN Working Group on Business and Human Rights

- ***Conduct an Urgent Review:*** Investigate the activities of multinational corporations operating in Western Sahara to assess their compliance with the UN Guiding Principles on Business and Human Rights.
- ***Issue Clear Guidance:*** Provide explicit recommendations urging businesses to cease operations in Western Sahara unless they obtain the consent of the Sahrawi people, through their legitimate representative.
- ***Engage Affected Communities:*** Facilitate consultations with Sahrawi civil society and advocate for their direct participation in discussions concerning business and human rights in the territory.
- ***Promote Corporate Due Diligence:*** Require corporations to conduct human rights impact assessments specifically addressing the legal and ethical risks of operating in an occupied territory.

To Corporations and Investors Operating in Western Sahara

- ***Cease Operations that Violate International Law:*** Companies involved in phosphate extraction, renewable energy projects, and other resource exploitation must immediately suspend activities in occupied Western Sahara.
- ***Reject Illegal Trade Agreements:*** Businesses engaged in trade, fisheries, and energy partnerships with Morocco should ensure that contracts exclude Western Sahara, in line with international court rulings.
- ***Ensure Compliance with International Norms:*** Corporations should align with the UN Guiding Principles on Business and Human Rights and avoid actions that contribute to human rights violations or the entrenchment of the occupation.
- ***End Misuse of Climate Finance:*** Companies participating in Morocco's renewable energy projects in Western Sahara must disengage from any projects funded by global climate mechanisms.

To Civil Society and Advocacy Groups

- ***Strengthen Awareness Campaigns:*** Expand global advocacy efforts to expose corporate complicity in the illegal resource exploitation of Western Sahara.
- ***Engage International Mechanisms:*** Bring cases before the UN Working Group on Business and Human Rights, regional human rights courts, and national legal systems to challenge corporate and governmental violations.
- ***Monitor Corporate Activities:*** Publish regular reports on companies operating in Western Sahara and pressure governments to enforce accountability mechanisms.

9 Conclusions

The ongoing development of renewable energy infrastructure and the extraction of natural resources in occupied Western Sahara raise fundamental legal, economic, and environmental concerns. These activities, carried out by Morocco without the consent of the Sahrawi people, violate international law and contribute to the entrenchment of the occupation. Despite the clear legal framework reaffirming that Morocco has no sovereignty over Western Sahara, foreign investments and trade agreements continue to involve the occupied territory, undermining the Sahrawi people's right to self-determination.

Morocco has integrated Western Sahara into its national energy strategy, promoting large-scale wind, solar, and hydrogen projects with the backing of multinational corporations and foreign governments. These projects, which generate electricity for export and Moroccan industrial sectors, have been developed without consultation or benefit to the Sahrawi people. The expansion of energy infrastructure in the territory has resulted in land dispossession, demographic shifts favouring Moroccan settlers, and economic marginalization of the Sahrawi people.

Furthermore, Morocco has secured international funding for these projects, including financial support through mechanisms established under the United Nations Framework Convention on Climate Change (UNFCCC). A substantial portion of Morocco's renewable energy investments, which are partially financed by global climate funds, are located in occupied Western Sahara, raising serious concerns regarding the legality of such financing. The inclusion of Western Sahara in these initiatives, without the consent of its people, constitutes a misuse of international climate funding and legitimizes the illegal occupation.

The October 4, 2024 ruling of the CJEU reaffirmed that Morocco has no sovereignty over Western Sahara and that EU-Morocco agreements covering trade and natural resources cannot legally apply to the territory without the explicit consent of the Sahrawi people. By invalidating EU-Morocco trade agreements on fisheries and agriculture that included Western Sahara, the Court reinforced the legal principle that international agreements must respect the distinct and separate status of the territory. This decision set a legal precedent that should guide all future economic activities in Western Sahara and holds direct implications for corporations, governments, and financial institutions operating in the occupied territory.

Similarly, the African Court on Human and Peoples' Rights has issued a significant ruling affirming the right of the Sahrawi people to self-determination and permanent sovereignty over their natural resources. The Court unequivocally condemned Morocco's exploitation of Western Sahara's resources as a violation of the African Charter on Human and Peoples' Rights. This ruling reinforces the legal consensus that Morocco's continued economic activities in the occupied Western Sahara are unlawful and that any agreements or projects conducted without the Sahrawi people's consent must be terminated.

Beyond the legal and economic dimensions, the expansion of Moroccan projects in Western Sahara is accompanied by systematic human rights violations. Sahrawi activists, journalists, and civil society organizations face repression, arbitrary detention, and restrictions on their fundamental freedoms when opposing resource exploitation in their territory. The absence of a human rights monitoring mandate within the United Nations Mission for the Referendum in Western Sahara (MINURSO) further exacerbates the situation, allowing Morocco to continue its policies with impunity.

The continued development of energy and resource extraction projects in Western Sahara constitutes a direct violation of the Sahrawi people's right to self-determination. International stakeholders—including governments, corporations, and financial institutions—must recognize their legal and ethical obligations and immediately cease involvement in projects that sustain the occupation.

Any future energy transition in Western Sahara must be based on the principles of decolonization and sovereignty, ensuring that the Sahrawi people are the sole decision-makers regarding the management and use of their natural resources. Until this is achieved, any economic engagement in Western Sahara, under the guise of sustainability or development, will remain a continuation of illegal resource exploitation and a violation of international law.

References

1. African Union. (n.d.). Legal opinion of the AUC Legal Counsel on the legality of the exploitation and exploration by foreign entities of the natural resources of Western Sahara. https://au.int/sites/default/files/newsevents/workingdocuments/13174-wd-legal_opinionof-the-auc-legal-counsel-on-the-legality-of-the-exploitation-and-exploration-by-foreign-entities-of-the-natural-resources-of-western-sahara.pdf
2. African Court on Human and Peoples' Rights. (2022, September 22). Application No. 028/2018 Judgment. https://www.africancourt.org/cpmt/storage/app/uploads/public/632/e0f/3ad/632e0f3ad580e748464681.pdf
3. European Commission. (2022). SWD(2022) 448 final: 2022 report on the benefits for the people of Western Sahara. https://taxation-customs.ec.europa.eu/report-impacts-and-benefits-eu-morocco-agreement-extending-tariff-preferences-products-originating_en
4. European Commission. (2018). 2018 report on the benefits for the people of Western Sahara (SWD(2018) 346 final, p.25). https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2018:0346:FIN:EN:PDF
5. GlobalData. (2025). Power plant profile: Noor Laayoune Solar PV Park, Morocco. https://www.power-technology.com/marketdata/power-plant-profile-noor-laayoune-solar-pv-park-morocco/
6. Bloomberg. (2024). Morocco to double West Sahara green power output for World Cup. https://www.energyconnects.com/news/renewables/2024/october/morocco-to-double-west-sahara-green-power-output-for-world-cup/
7. Hernandez, A. (2024). TotalEnergies studies Moroccan project to export green ammonia to Europe. Reuters. https://www.reuters.com/business/energy/totalenergies-studies-moroccan-project-export-green-ammonia-europe-2024-10-29/
8. Western Sahara Resource Watch. (2025). Engie starts power production on occupied land. https://wsrw.org/en/news/engie-starts-power-production-on-occupied-land
9. Business & Human Rights Resource Centre. (2025). Report warns wind energy companies from engaging in Western Sahara without consent. https://www.business-humanrights.org/en/latest-news/moroccowestern-sahara-report-warns-wind-energy-companies-from-engaging-in-projects-in-western-sahara-without-consent-of-local-communities/
10. Transnational Institute. (2022). An Unjust Transition: Energy Colonialism and Extractivism in Occupied Western Sahara. https://www.tni.org/en/article/an-unjust-transition
11. ESI Africa. (2024). Morocco: Another renewable energy project in disputed Western Sahara. Western Sahara Resource Watch. (n.d.). The Resource Curse – Images. https://wsrw.org/en/the-resource-curse
12. Western Sahara Resource Watch. (2020). Voltalia to construct wind farm in occupied Western Sahara. https://wsrw.org/en/news/voltalia-to-construct-wind-farm-in-occupied-western-sahara

13. Western Sahara Resource Watch. (2020). Portugal energy consultants fail in geography. https://wsrw.org/en/archive/4531
14. https://www.hitachienergy.com/about-us/company-profile/our-story
- Hynes, I. (2018). US blockchain firm embroiled in controversy over energy project in
15. Western Sahara. https://blocktelegraph.io/us-blockchain-firm-embroiled-controversy-energy-project-western-sahara/
- Hamouchene, H. (2023). How renewables corporations are exploiting the Global South.
16. https://newint.org/story/climate/2024/01/02/how-renewables-corporations-are-exploiting-global-south
- Western Sahara Resource Watch. (2016). Deal for solar plants in occupied Western
17. Sahara signed at COP22. https://wsrw.org/en/archive/3672
- Staff Writer. (2016). Sterling, Wilson to build 170MW solar PV project in Morocco.
18. https://www.nsenergybusiness.com/news/newssterling-and-wilson-wins-epc-contract-for-170-mw-solar-pv-project-in-morocco-5679444/
- Martin, P. (2024). Emirati national energy company to invest $10bn into 6GW Moroccan
19. green hydrogen project. https://www.hydrogeninsight.com/production/emirati-national-energy-company-to-invest-10bn-into-6gw-moroccan-green-hydrogen-project/2-1-1577795
- Western Sahara Resource Watch. (2023). Chinese firm to supply Engie with conflict
20. windmills. https://wsrw.org/en/news/chinese-firm-to-supply-engie-with-conflict-windmills
- Western Sahara Resource Watch. (2023). HDF Energy announces dirty green hydrogen
21. plans on occupied land. https://wsrw.org/en/news/hdf-energy-announces-dirty-green-hydrogen-plans-on-occupied-land
- Africa Energy Portal. (2024). TotalEnergies, Morocco team up for green hydrogen
23. breakthrough. https://africa-energy-portal.org/news/totalenergies-morocco-team-green-hydrogen-breakthrough
- Western Sahara Resource Watch. (2013). Wind energy companies silent on controversial
24. plans. https://wsrw.org/en/a105x2634
- Ministry of Energy Transition – Morocco. (2025). Sector overview.
25. https://www.mem.gov.ma/Pages/secteur.aspx?e=2&prj=3
- Jeune Afrique. (2024). Macron annonce un plan d'investissement de 10 milliards d'euros
26. au Maroc. https://www.jeuneafrique.com
- Le Monde. (2024). La France renforce sa présence économique au Maroc et au Sahara
26. occidental. https://www.lemonde.fr
- Agence Française de Développement. (2024). AFD grants €350 million loan to OCP for
27. green transformation. https://www.afd.fr
- Agence Française de Développement. (2024). AFD announces €150 million investment
28. in Morocco's southern regions. https://www.afd.fr

29. ACWA Power. (2024, November 7). Financial results for the period ending 30 September 2024. https://www.acwapower.com/news/acwa-power-announces-its-financial-results-for-the-three-and-nine-months-period-ended-30-september-2024-en/
30. Enerdata. (2024, December 13). Dahamco moves ahead with a 1 Mt/year green hydrogen and ammonia project in Dakhla. https://www.enerdata.net
31. Hespress. (2010, October 21). Kuwait grants Morocco a $69 million loan to strengthen the electricity grid in the southern provinces. https://www.hespress.com/-الكويت-تمنح-المغرب-قرضا-بـ-69-مليون-دولا-37545.html
32. Climate Investment Funds. (2025). Investing in Morocco. https://www.cif.org/country/morocco#:~:text=INVESTING%20IN%20MOROCCO

Images

33. Image 1: Green European Journal. (n.d.). [Image of wind turbines in Western Sahara]. https://www.greeneuropeanjournal.eu/dirty-clean-energy-is-moroccos-renewable-energy-from-western-sahara-really-green/
34. Image 2: Western Sahara Resource Watch. (2023, July 10). General Electric conflict windpark near completion. https://wsrw.org/en/news/general-electric-conflict-windpark-near-completion
35. Image 3: Windpower Monthly. (2016, March 3). Siemens under fire for Western Sahara projects. https://www.windpowermonthly.com/article/1415114/siemens-fire-western-sahara-projects
36. Image 4: Africa Energy. (n.d.). Morocco gears up for green hydrogen push in disputed Western Sahara. https://www.africa-energy.com/news-centre/article/morocco-gears-green-hydrogen-push-disputed-western-sahara
37. Image 5: Western Sahara Resource Watch. (n.d.). Deal for solar plants in occupied Western Sahara signed at COP22. https://wsrw.org/en/archive/3672
38. Image 6: Green European Journal. (n.d.). [Image of solar infrastructure in Western Sahara]. https://www.greeneuropeanjournal.eu/dirty-clean-energy-is-moroccos-renewable-energy-from-western-sahara-really-green/
39. Image 7-10: Western Sahara Resource Watch. (n.d.). [Images of resource exploitation in Western Sahara]. https://wsrw.org/en/the-resource-curse
40. Image 11: Western Sahara Resource Watch. (n.d.). CIMAR 5 MW wind farm powering Indusaha cement plant in El Aaiun, installed by Siemens Gamesa. https://wsrw.org/en/news/renewable-energy

Sahrawi Observatory for Natural Resources and Enviromental Protection

Mission

SONREP

A free and sovereign Western Sahara where the people of Western Sahara are the rightful owners of their natural resources and ecosystems, and where environmental justice forms the foundation of a sustainable and dignified future.

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