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Title of the Term Paper: The Role of the State and Social Movements in Shaping the Energy Transition in Morocco

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Case Report

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Abstract

As I write this, Morocco’s Generation Z is once again taking to the streets, demanding basic rights; dignity, health, education, employment. The images of police repression reflect earlier moments in modern Moroccan history, recalling the 2011 protests and the broader wave of the Arab Spring. Social movements have played a defining role in Morocco’s political evolution, but today they also intersect with another critical arena: corruption and the struggle over the country’s energy transition. Morocco was once celebrated internationally as a regional climate leader (especially since COP 22) ; its green transition reveals deeper social and political tensions. This study examines how state policies, political discourses, and social popular mobilizations interact in shaping Morocco’s renewable energy agenda and extractive industries. Drawing on theories of political ecology and energy justice, it explores how megaprojects in solar, wind and mining sectors reproduce historical patterns of dispossession while generating new forms of resistance. By tracing narratives from state institutions, civil society, and local and indigenous communities, the research highlights both the contradictions and the transformative potential of Morocco’s energy transition. Ultimately, it argues that a just and democratic transition must go beyond decarbonization; repoliticizing participation, recognizing indigenous governance, and confronting continuous social and territorial inequalities of power and knowledge.

1: Introduction

The global energy transition has emerged as one of the most pressing socio-ecological transformations of the 21st century. Therefore global energy plays a crucial role in determining the economic and socioecological trajectories of nations (Mat, Cerceau, Shi, Park, Junqua, & Lopez-Ferber, 2016). It is no longer framed solely as a technical substitution of fossil fuels with renewable resources, but rather as a complex multidimensional process encompassing ecological stability, economic development, and social equity (Geels, Sovacool, Schwanen, & Sorrell, 2017; Hoppe & Miedema, 2020).

However, the concept itself remains contested, as its scope extends from reducing greenhouse gas emissions to restructuring governance systems, production regimes, and everyday practices (Bridge, Bouzarovski, Bradshaw, & Eyre, 2013; Sovacool, 2016). By 2040, the world population is projected to reach 9.2 billion, with global GDP expected to double. This demographic and economic expansion will significantly increase energy demand, despite anticipated gains in energy efficiency and decarbonisation efforts (International Energy Agency [IEA], 2021; BP, 2019).

Morocco plays a central role in global extractive and agricultural systems particularly through its vast phosphate reserves (one of the largest in the world) which are essential

for producing chemical fertilizers that sustain industrial agriculture worldwide. This positions Morocco as a key supplier within global agrarian capitalism, linking its natural resources directly to international food and energy systems. In addition to phosphate exports, Morocco also provides substantial agricultural produce to European markets, reinforcing its integration into global value chains that prioritize export-oriented production over local food sovereignty.

Against this backdrop, Morocco has positioned itself as a regional pioneer in renewable energy development, due to its abundant solar and wind resources (Bacaoui, Jazouli, & Marwan, 2025) and as a key actor, not just in north africa but also in the global green transition (Sabry, 2025). As a non-energy-producing country heavily dependent on imports, Morocco's energy strategy is rooted in exploiting domestic renewable resources such as solar, wind, and hydropower (El-Katiri, 2014; Werenfels, 2018). However, these transition projects also provide the state with greater strategic energy independence and, for the first time, the opportunity to transform into a regional energy exporter (Sabry, 2025).

This paper seeks to examine the intersection of state policies, political discourses, and social contestations in shaping Morocco's energy transition, with a particular focus on renewable energy development, mineral extractivism, and their socio-ecological implications. It seeks to answer the guiding research question: **How do state policies and social movements interact in shaping energy transition in Morocco?** Specifically, the study explores (1) the role of social movements in contesting or supporting the state-led renewable energy agenda, (2) the negotiation of energy transition between state actors, civil society, and local communities, (3) the role of political parties in shaping policies on critical mineral extraction, (4) the dominant narratives in Moroccan official discourse on extractivism and energy transition, (5) indigenous responses to extraction projects in their territories, and (6) the impact of foreign investment on local socio-ecological systems and livelihoods.

Two major actors dominate the country's extractive landscape: the state-owned Office Chérifien des Phosphates (OCP), which oversees phosphate mining and processing, and Managem, a subsidiary of the royal holding company SNI (Société Nationale d'Investissement), which controls much of the metallic and mineral extraction sector. Together, these entities reflect the concentration of economic and political power in Morocco's development model.

The state has set ambitious targets, aiming to generate 52% of electricity from renewable sources by 2030, compared to 42% in 2020 (IEA, 2021). This trajectory is not only motivated by energy security concerns, but also by a political desire to strengthen Morocco's geopolitical position and integrate into global green supply chains (Rignall,

2016). Investments in strategic and critical minerals, including cobalt and phosphate, position the country politically as a hub for international firms (particularly Chinese and European companies) seeking to secure resources for electric vehicle production and battery manufacturing (World Bank, 2020).

In recent years, OCP and Managem have sought to align with Morocco's renewable energy ambitions—investing in solar and wind power to reduce operational emissions and presenting themselves as contributors to a "green" transition. Yet, these initiatives also raise questions about green extractivism, as the push for renewable technologies often depends on intensified mining for minerals and metals, deepening socio-environmental inequalities. Furthermore, Moroccan capital, including these extractive conglomerates, has expanded beyond national borders, investing across sub-Saharan Africa in mining, fertilizers, and energy projects. This regional expansion illustrates how Morocco's energy and resource strategies are intertwined with broader geopolitical and economic interests, positioning the country as both a regional green energy hub and a driver of extractive capitalism under a new sustainability narrative.

To begin with, the Moroccan state frames these developments as a new pathway and model of governance towards national modernisation, economic growth, and sustainable development (Haddad, Günay, Gharib & Komendantov, 2022). Based on article 31 in the moroccan constitution, "Sustainable development is a right of all citizens" (Constitution of the Kingdom of Morocco). Framework Law No. 99 − 12 serves as a national charter for the environment and sustainable development. Policies such as the 2017 National Sustainable Development Strategy explicitly link renewable energy to poverty reduction and inclusive growth. All countries, especially developing countries, are trying to get access to modern energy services, to strengthen their economies and reduce poverty (Sy, Mokaddem, 2022). The concept of Energy poverty, was used as one of "the three major challenges facing the world's energy system, has attracted extensive attention from the international community and academic circles" (Zhao, Dong, Dong, & Shahbaz, S: 300, 2022).

Yet, these official narratives of the state often obscure the socio-ecological costs of extractivist practices at the local level, because local communities have hardly been involved in the planning process (Rignall, 2016). On one hand, communities living near mining and new projects of extractivism sites report land dispossession, environmental degradation, and marginalisation. ‘‘The project people talk about this as a desert that is not used but to people here it is not desert; it is pasture. It is their territory. The future is in land. When you take my land, you take my oxygen.’’ (Rignall, 2016, S. 552). On the other hand, their resistance movements remain largely invisible in state-controlled media. Such processes of transformations require a whole range of political, social and economic considerations, because "The cost of energy is a concern in this chronically poor area,

especially when the most vulnerable households cannot afford to connect to the grid" (Rignall, 2016, S. 548).

The contributions of this study to the literature on energy transition and environmental governance are threefold. Firstly, while existing literature has largely concentrated on the technical and economic aspects of renewable energy expansion (IEA, 2021; Bridge et al., 2013), less attention has been given to the discursive, political, and justice-related dimensions. By incorporating political ecology, critical discourse analysis, and environmental justice, this study investigates both the narratives legitimizing state-led projects and the counter-narratives articulated by civil society and indigenous communities.

Secondly, it is among the few studies that focus specifically on Morocco, rather than subsuming the country within cross-country analyses of North Africa or the Global South. While regional comparative studies have provided valuable insights (e.g., El-Katiri, 2014; Werenfels, 2018), they often overlook the unique institutional, political, and social context shaping Morocco's trajectory. Thirdly, this research moves beyond conventional energy transition models by explicitly analysing structural inequalities and contested power relations that underpin Morocco's integration into global green supply chains. Given the country's exposure to multiple socio-economic shocks and pressures from international investors, ignoring these dynamics risks producing incomplete or biased interpretations of Morocco's transition pathway.

By analysing policy documents, political speeches, media coverage, and statements from indigenous groups, this study aims to contribute to a deeper understanding of how Morocco's energy transition is discursively constructed, politically contested, and socially negotiated. It situates the Moroccan case within global debates on energy justice, extractivism, and postcolonial power relations, highlighting the contradictions between international green ambitions and local struggles for ecological sustainability and social justice.

This study is structured into several main sections. It begins with the theoretical framework and a literature review, which together provide an overview of the conceptual foundation and summarize relevant previous studies. The methodology section then outlines the approach used for selecting the empirical model, the data, and the estimation strategy. Subsequently, the key findings derived from the analysis are presented and discussed in the results and discussion section. Finally, the study concludes with a conclusion section that summarizes the main insights and offers concluding remarks.

2: Theoretical Framework

This research draws on an interdisciplinary framework that integrates political ecology, environmental justice and energy poverty. These perspectives provide essential and analytical tools for examining the current socio-environmental transformations and understanding Morocco's energy transition. This requires such an integrative lens that connects environmental, political, and social dimensions. This section therefore outlines the theoretical foundations of the study and positions them within the broader literature on energy transitions, resource extractivism, and socio-ecological contestations in the Global South.

2.1. A Political Ecology Approach of the State: Environmental Changes and Actors' Interests

The past 30 years in Morocco have witnessed a major transformation in the energy systems with complex social and political issues emerging as an analytical factor. Political ecology emerged from cultural ecology, a field of research concerned with how local communities adapt to and rationalize their interactions with the environment (Robbins, 2020). As an approach, it provides a critical lens to analyze the interactions between environmental changes, resource exploitations, and its impacts on power and social dynamics (Paulson, Gezon & Watts, 2003). It emphasizes that environmental transformations are never neutral but are deeply embedded within political economies, governance structures, and global hierarchies (Peet, Robbins, & Watts, 2011; Robbins, 2020). The term political ecology originated from political economy (Walker, 2005), and its definition is closely connected to political economic analysis, as outlined by Robbins (2020). In the Moroccan context, this perspective allows for an examination of state-led renewable energy and extractive projects, which, although framed as pathways to sustainability, may reproduce neocolonial dependencies and exacerbate local socio-economic inequalities (Sabry, 2025).

As Swyngedouw and Heynen (2003) highlight, political ecology is concerned with issues of distribution, asking *who profits and who pays the price* (Swyngedouw & Heynen, 2003). Morocco has positioned itself as a regional leader in renewable energy development, notably through projects such as the Noor Solar Power Station in Ouarzazate, one of the largest concentrated solar power plants in the world (Benbba et al,. 2024). These initiatives are often presented as part of a "green modernization" strategy, promising both ecological and economic benefits. However, critics question whether these projects truly foster equitable and inclusive development or reinforce existing power structures and inequalities (Haddad, 2022).

A core concern of political ecology is the analysis of diverse actors' interests and the power relations that shape environmental change. Political ecologists examine how local landscapes are affected by broader regional or global dynamics. For example, they might

explore how indigenous communities are impacted by large-scale political-economic processes, emphasizing the need to foreground their perspectives and experiences (Brown & Purcell, 2005). In Morocco, this includes the state, which aims to enhance energy security and strengthen international partnerships through renewable energy promotion (Wehrey & Bonney, 2025). Business actors, on the other hand, benefit from investment opportunities in renewable sectors, while local communities are affected by land-use changes and environmental disruptions. Political ecology investigates how these divergent interests conflict or intersect and what social and ecological consequences arise (Domínguez, 2017).

Moreover, environmental organizations and civil society actors have criticized Morocco's green transition for being associated with social and ecological injustices (Hamouchene, 2023). Local communities, particularly in rural areas, are often insufficiently included in decision-making processes and bear the negative impacts of projects, such as water scarcity or land dispossession, while economic benefits are unevenly distributed (Rignall, 2016; Greenpeace, 2025). This perspective highlights the importance of using political ecology as an analytical tool to critically examine the complex dynamics of Morocco's green transition and to explore alternative, more equitable development pathways.

2.2: Environmental Justice and Social Movements in Morocco: Toward Alternative Socio-Ecological Pathways

As defined by Schlosberg (2007) and Walker (2012), the Environmental Justice (EJ) framework addresses the social unequal distribution of environmental benefits and burdens, as well as the exclusion of marginalized groups from decision-making processes (Schlosberg, 2007; Walker, 2012). According to Jenkins et al. (2016), the concept of energy justice is built upon three key pillars: distributive justice, which focuses on the fair allocation and redistribution of energy resources; recognition justice, which emphasizes the inclusion of marginalized groups and voices in energy discussions; and procedural justice, which demands equal opportunities for participation in decision-making.

The framework of environmental justice is structured around these three dimensions: distributional justice (how environmental goods and harms are distributed), procedural justice (who participates in environmental decision-making), and recognitional justice (whose knowledge, culture, and rights are acknowledged) (Jenkins et al, 2016). These dimensions are particularly relevant in the Moroccan context, where large-scale renewable energy projects and mineral extraction often provide economic benefits to national elites and international investors while imposing disproportionate costs on rural communities and indigenous populations (Sabry, 2025; Haddad, 2022).

The EJ perspective helps to evaluate both material inequalities and normative claims of communities seeking recognition, inclusion, and fairness. According to Healy and Barry (2017), the politics of just transitions is crucial because the dynamics of socio-ecological change are not only technical but also inherently political, involving struggles over power, resource access, and the distribution of benefits and burdens. For instance, local populations affected by solar farms or mining projects often face restricted access to land, water scarcity, or displacement, yet are rarely included in planning or compensation decisions. Civil society organizations and environmental advocacy groups increasingly mobilize around these issues, calling for more participatory governance and equitable benefit-sharing in renewable energy transitions (Domínguez, 2017; Greenpeace, 2025). This highlights the tension between Morocco's ambitions for "green growth" and the lived experiences of marginalized actors.

Environmental justice also provides an analytical tool to understand alternative socio-ecological pathways. In contrast to extractive models of green transition, which primarily benefit elites and powerful investors, EJ-oriented approaches emphasize inclusive and participatory planning processes that integrate local knowledge, needs, and rights. Such approaches can enhance social acceptance, reduce conflict, and ensure that the green transition does not exacerbate existing inequalities (Schlosberg & Collins, 2014). In Morocco, this could involve more equitable land allocation for renewable projects, transparent consultation mechanisms, and compensation schemes that prioritize affected communities.

Finally, EJ intersects with broader social movements advocating for sustainable and fair development. Local, national, and transnational actors—including NGOs, youth movements, and grassroots organizations—have increasingly demanded alternative social contracts that recognize community rights while promoting ecological sustainability. These movements challenge the conventional top-down, state-centric approach to energy transition, advocating for governance models that distribute benefits broadly and protect vulnerable populations (Agyeman et al., 2016; Sabry, 2025). In this sense, environmental justice is not only a normative ideal but also a practical framework for shaping Morocco's transition toward socially and ecologically sustainable energy futures.

3: Literature Review

3.1: Overview of Social Movements and State–Society Relations in Morocco (2011–2020)

The energy sector in the coming decades will face three interlinked challenges: ensuring energy security, addressing climate change, and alleviating energy poverty—issues that together define the global agenda of sustainable energy transitions (Gonzalez-Eguino,

2015). In Morocco, as elsewhere, the process of energy transition intersects with several social and political dynamics, including historical patterns of state–society interaction and evolving forms of collective mobilization.

Early studies of Morocco's energy sector tended to emphasize quantitative or single-index evaluations of energy justice, and renewable energy adoption, thereby capturing only limited dimensions of a more complex transformation (Kyriakopoulos, Streimikiene, & Baležentis, 2019). More recent scholarship, however, conceptualizes energy transition as a multidimensional process that entails structural shifts in production, consumption, governance, and societal values (Geels, Sovacool, Schwanen, & Sorrell, 2017; Sovacool, 2016). This broader perspective reframes energy transition not merely as a technological substitution of fossil fuels with renewables, but as a socio-political reconfiguration involving questions of equity, participation, and environmental justice (Bridge, Bouzarovski, Bradshaw, & Eyre, 2013; Meadowcroft, 2009).

Against this backdrop, Morocco's modern political trajectory has been shaped by cycles of protest and reform, beginning with the 20 February Movement (F20M) of 2011. Emerging in the context of the Arab uprisings, the F20M mobilized diverse groups around demands for social justice, political accountability, and an end to corruption (Hibou, 2011). Weekly demonstrations across Moroccan cities reflected growing popular frustration with entrenched inequalities and limited political freedoms. In response, King Mohammed VI reasserted his authority by announcing constitutional reforms in March 2011, which introduced modest political openings such as guarantees of public freedoms, the right to protest, and limited checks on royal power. These reforms, however, were largely symbolic, aiming to absorb popular anger while maintaining the monarchy's central dominance in governance.

Between 2011 and 2016, the state–society relationship underwent renewed tension as new waves of protest revealed the limits of these reforms. The Hirak movement in the Rif region, which erupted in 2017 following the death of the fish vendor Mohcine Fikri, marked a turning point. Fikri's death, caused when he was crushed in a garbage compactor while attempting to retrieve confiscated goods, ignited widespread indignation and protests in Al-Hoceima. The Hirak articulated broader demands for social equity, public investment, and regional development. The state's harsh repression of these demonstrations contrasted sharply with its measured response in 2011, highlighting the persistence of authoritarian practices beneath reformist rhetoric. The Hirak, and subsequent mobilizations in marginalised regions, exposed deep-seated grievances related to unemployment, regional inequality, and infrastructural neglect—core issues that continue to shape Morocco's political landscape.

The Jerada movement of 2017–2018 further underscored these tensions. Triggered by the deaths of two miners, Jedouane and Houcine, in an abandoned coal shaft, the protests in Jerada revealed decades of economic marginalization following the 1998 closure of the state-owned coal mine Charbonnages du Maroc (CDM). The closure left the region economically devastated, with unemployment exceeding 30%—three times the national average—and poverty rates significantly higher than the national level. These protests exemplified a broader pattern of discontent associated with extractive industries, where environmental degradation, social exclusion, and economic dependency converge. The mining sector, both in Morocco and globally, has faced criticism for poor environmental practices, human rights violations, and failure to secure a sustainable social license to operate.

Earlier, the Imider movement of 2011 had already foreshadowed this new wave of rural mobilization. In the southeastern province of Tinghir, residents of Imider established a protest encampment on Mount Albban, cutting the water supply to a silver mine operated by Managem, a subsidiary of the royal holding company Al Mada (Benidir, 2017b; Bogaert, 2018b). The protest became one of the longest-running environmental and social justice movements in Moroccan history. Organized through Amazigh community networks, the movement called for equitable access to water and land, and for an end to exploitative extractive practices. It symbolized a wider network of small-scale, rural mobilizations that diverged from the urban and institutional strategies of the 20 February Movement, instead centering on rights to land, water, and recognition. These community-based struggles also anticipated later movements such as the Hirak, linking environmental grievances to broader claims for dignity and socio-economic inclusion (El Kahlaoui & Bogaert, 2019; Chapi, 2019).

3.2: Energy Transitions and the Redefinition of State–Society Relations in the Morocco context

In developing contexts, energy transitions unfold within complex political and economic conditions characterized by demographic growth, dependence on external markets, and uneven access to resources. Elias and Victor (2005) emphasize that transitions in the Global South are constrained by limited financial capacity, institutional fragility, and structural dependency on international investment. Hoppe and Miedema (2020) add that energy transition is inherently political, shaped by competing interests between governments, private capital, and civil society actors. It represents a contested terrain where questions of justice, governance, and sovereignty intersect with technical and economic concerns.

Morocco has positioned itself as a regional pioneer in renewable energy, aiming to generate 52% of its electricity from renewable sources by 2030 (IEA, 2021). Flagship

projects such as the Noor Solar Complex and large-scale wind farms are promoted as symbols of modernization and environmental leadership (El-Katiri, 2014; Werenfels, 2018). Supported by international financial institutions and foreign investors, these projects are framed within a narrative of green growth and sustainable development (World Bank, 2020).

However, critical scholarship challenges this celebratory narrative. Analysts argue that Morocco's renewable energy strategy remains deeply embedded in global green supply chains, reliant on extractive activities—particularly in phosphate and cobalt mining—central to global decarbonization technologies (El Khatabi, 2024; M. Vervaecke, 2020). This "green extractivism" reproduces patterns of land dispossession, ecological degradation, and social exclusion, particularly among indigenous and rural populations (Bouet, 2022). Local resistance movements, though often marginalized in official discourse, articulate alternative visions of environmental justice that emphasize equity, participation, and sovereignty over natural resources (Haag, 2022).

3.3: Gaps in the Literature

Despite the growing body of research on Morocco's renewable energy agenda and extractive economy, several gaps remain. Few studies have systematically examined the interaction between state-led energy discourses and grassroots mobilizations. Moreover, the mediating roles of political parties, local governance structures, and civil society organizations in shaping the energy transition remain underexplored. This study addresses these gaps by integrating insights from political ecology, environmental justice, and discourse analysis to provide a holistic understanding of Morocco's evolving energy landscape and its implications for social inclusion, governance, and sustainability.

4: Methodology and Data Collection

This research examines the governance of Morocco's energy transition, focusing on how state actors, private developers, civil society organizations, and local communities interact, negotiate, and contest authority throughout the transition process. The study aims primarily to uncover; how competing interests, socio-political dynamics, and trade-offs shape energy policy decisions and influence the broader trajectory of Morocco's shift toward renewable energy. Particular emphasis is placed on the intersection of extractivist practices, environmental justice, and social mobilization, highlighting how state-led narratives of green modernization coexist with grassroots resistance.

Data has been collected from a variety of sources to capture multiple perspectives, including official government documents, parliamentary debates, political party manifestos, policy statements, and speeches; publications and reports from national and international organizations and NGOs (e.g., Human Rights Watch); academic studies;

media coverage (mainstream and independent); and social media content, such as Facebook posts, YouTube videos, and online campaigns. These sources provide insights into the strategies, discourses, and claims of state actors, local communities, and social movements engaged in debates over renewable energy, mining, and environmental justice in Morocco.

The study focuses on the period between 2010 and 2020, encompassing the launch of major renewable energy projects (e.g., the Noor Solar Complex) and the wave of protests and mobilizations around mining, water access, and socio-environmental grievances. A purposive sampling strategy has been employed to select materials that offer relevant evidence on policy narratives, community demands, mobilization strategies, and outcomes. Data has been systematically categorized and coded to identify key concepts, discursive frames, and recurring narratives. This triangulation of government, civil society, and media sources has been applied to ensure credibility and provide a balanced representation of multiple perspectives.

The study adopts also analytically a qualitative research design, guided primarily by critical discourse analysis (CDA), to examine how official narratives on energy transition, sustainable development, and extractivism are constructed, and how they are contested or reframed by social actors. Drawing on discourse theory, CDA (Fairclough, 2012), and multimodal analysis, the analysis focuses on mechanisms such as articulation, framing, counter-narratives, and legitimacy-building. Insights from political ecology and social movement theory have been further guided by interpretation, highlighting interactions between state power, international investment, and grassroots mobilizations.

This methodological approach aims to provide a comprehensive and nuanced understanding of how governance, discourse, and social mobilization shape Morocco’s contested energy transition, revealing the mechanisms through which narratives of progress, resistance, and environmental justice intersect.

5: Results and Analysis

5.1: Voices of Resistance: Social Movements as Agents of Recognition in Morocco’s Energy Transition

Empirical evidence indicates that social mobilisations around energy and extractive projects in Morocco are rarely formed primarily as “environmental” protests. Instead, local communities emphasize its social and economic concerns such as livelihoods, employment opportunities, compensation, and fair inclusion, because they have hardly been involved in the planning and implementation of those projects (Haddad, 2022; EJAtlas, 2021; Rignall,

2016). The mega solar power plants, as experiences from CSP Ouarzazate and the long-standing protest in Imider illustrates this well (Bogaert & El Kahlaou, 2024). Rather than focusing on abstract environmental protection, villagers have been mobilised against water exploitation in the region and its expanding appropriation, as well as the exclusion from economic benefits of the extractive projects. Their demands combined water justice with several calls for a fair distribution of jobs and revenues (Salime, 2022).

Figure: (1) In a scene reminiscent of the policing that has occurred in Standing Rock, police in Morocco march in parallel to the Indigenous villagers from Imider to prevent them from reaching the Managem silver mine. (Photo: Lokwood, 2016).

Salime's study (2022) in the context of *Mining and Resistance in Morocco* examines critically how mining struggles, particularly the long-standing protest in Imider, generate what she calls a "gendered counter-archive." Rather than being peripheral actors, women are shown as central to sustaining resistance practices, whether through the organisation of everyday life in protest camps, the circulation of testimonies, or the intergenerational transmission of memory. Salime argues that this archive is "gendered" because it foregrounds forms of knowledge, care, and embodied resistance that are often invisible in dominant state or corporate narratives about development and extractivism. highlighting how subaltern communities create their own epistemologies of justice and survival in the face of extractive capitalism.

Haddad's (2022) study of the Moroccan solar programme highlights similar dynamics. Communities often associate project acceptance with concrete benefits (such as employment, infrastructure, and services) and protest when these expectations are unmet. Social movements act as local watchers of distributive justice. They contest not only ecological impacts but, more importantly, the social contract of who benefits from the green transition. Mobilisation is particularly strong where participation channels are weak and benefit-sharing is absent (Haddad, 2022; EJAtlas, 2021).

Social movements that were led by local communities in Morocco do not merely articulate opposition to the exploitation of natural resources, but they also highlight the broader social and environmental consequences of extractivism for their everyday life. By framing grievances in terms of livelihood, cultural continuity, and environmental degradation, these movements function as mechanisms to render visible the often-hidden costs of state and corporate projects (Salime, 2022; Temper et al., 2015). In this sense, protest becomes both a political and epistemic practice: it produces counter-narratives that challenge dominant discourses of "green growth" and modernization, while drawing public attention to uneven access to land, water, and employment opportunities. Such dynamics demonstrate that resistance is not only about material redistribution but also about

symbolic recognition and the right to participate in defining development pathways (Haddad, 2022; Hall et al., 2015).

At the same time, these mobilisations are deeply connected to and formed by the historical and cultural trajectories of resistance in Morocco, particularly within Amazigh communities. Many local actors and communities draw on memories of anti-imperial struggles to articulate contemporary claims, linking extractive injustices to broader histories of dispossession and domination (Zemni, 2016; Salime, 2022).

This perspective frames land not only as an economic asset but as a spiritual and cultural foundation, inseparable from the perception of identity and freedom. When multinational companies or state actors and agencies profit from natural and local resources without consulting or ensuring equitable benefit-sharing, local communities perceive this as a continuation of external exploitation, reminiscent of colonial and imperial practices (Bebbington et al., 2008). Thus, local resistance embodies both material demands for distributive justice and a moral-political struggle for autonomy, dignity, and self-determination.

5.2: Between Hegemony and Participation: Negotiating Power and Justice in Morocco’s Energy Transition

Negotiations around the energy transition in Morocco are processes that are characterised by significant characteristics. On the one hand the state with its agencies and large public–private actors, such as ONEE or international investors, largely control project design and financing (MERIP, 2021). On the other hand local communities and grassroots organisations typically enter from a weaker position.

Processes labeled as “negotiation” in the context of Morocco’s extractive and renewable energy projects are in reality marked by deep imbalance of power. Negotiation presupposes a level playing field, yet local communities and state actors do not enter discussions on equal terms. State agencies and corporate actors possess financial resources, political legitimacy, and coercive instruments, while affected communities often lack the institutional capacity and economic security to sustain long-term mobilisations (Haddad, 2022; Verhoeven, 2021).

As a result, what is framed as participatory dialogue often reproduces existing hierarchies, with consultation processes serving more as symbolic gestures than as genuine opportunities for influence. This reflects what scholars describe as *green authoritarianism*, in which renewable energy transitions are pursued through top-down governance structures that limit local agency (McDonnell, 2020).

The vulnerability of local communities further exacerbates these inequalities. Many protesters face constraints linked to livelihood pressures, family responsibilities, or employment in the public sector, where open dissent may lead to intimidation or job insecurity (Salime, 2022; Cavatorta, 2009). These conditions undermine the sustainability of collective actions (Imidr as an example) and create structural disincentives to prolonged resistance, even when grievances remain unresolved.

Consequently, what appears as negotiated agreements often masks underlying coercion or forced acquiescence, raising the question of whether “negotiation” is an appropriate analytical term in such contexts. Instead, these dynamics can be better understood as contested spaces where communities seek to carve out recognition and distributive justice within a framework heavily tilted in favor of state and corporate interests (Temper et al., 2015).

Figure: (2) Noor Ouarzazate Solar Project complex (Photo: Ryser, 2018).

Research on the Noor Ouarzazate and Noor Midelt complexes illustrates recurring patterns: top-down planning, promises of local benefits, and subsequent dissatisfaction when those benefits fail to materialize or when access to land and water is curtailed (Zemlickienė, Amraoui, El Idrissi, 2024). Critics describe this as a form of “green grabbing” (Pau Bouet, 2022).

While state-linked NGOs or well-funded organisations may participate in consultative mechanisms, grassroots groups (particularly rural Amazigh assemblies) often rely on direct action and media campaigning to make their claims visible (Haddad, 2022). Consultation processes are frequently superficial, leaving communities with few alternatives but counter-mobilisation. Negotiation is not a symmetric bargaining process but a contested and uneven one. Where meaningful participation exists, conflict tends to diminish; where consultation is symbolic or compensation inadequate, protests escalate and become long-term (MERIP, 2021).

5.3: Who Speaks for the People? Civil Society, Political Representation, and the Politics of Critical Mineral Extraction

Morocco’s political system functions as an executive monarchy, where the king occupies a central position and plays a role in shaping the distribution of power across state institutions (Bank, Richter, & Sunik, 2014). Although the constitutional reforms of 2011 formally expanded the authority of parliament and other government bodies, the monarchy has largely retained its pre-eminence “ In fact, as shown below, although it introduced some relevant democratic novelties, it continues to grant the King near absolute powers.” (Biagi, 2014, p.12). Through the mechanisms of the “*makhzen*" and its influence over key

central state institutions, the royal palace continues to safeguard and project its political and economic interests (Pinelli, 2012; Vidican, 2015; Hamouchene, 2016; Ryser, 2019).

*Figure (3): The villagers set up a resistance camp on Mount Alebban in 2011. The water valve turned off by the people of Imider (Photo: Nadir Bouhmouch) (*Brour, 2020*)*

At the beginning of the 1970s, John Waterbury argued that the survival of the monarchy resulted primarily from the defensive use of political power and its preservation through the division of a narrow elite: “political life in Morocco consists [...] of a permanent rebellion among political units, in an atmosphere of crisis and tension which in fact helps to maintain the balance of society and to restore it when necessary” (Waterbury, 1975, p. 24). Political parties operate within this constrained political environment, where decision-making is heavily influenced by the state and its elite powerful economic actors (Bennani-Chraïbi, M. 2019).

In practice, political parties often serve as intermediaries, translating state narratives into local contexts and managing public perceptions. They attempt to pacify grievances by framing extractive projects as matters of national interest or by offering promises of employment and local development. Yet, Morocco lacks political parties explicitly focused on environmental protection or climate justice. Instead, political debates are dominated by social and economic issues, such as economic growth, social equity, and access to education and healthcare. This ideological focus channels the rise of parties promising inclusive development while sidelining environmental concerns.

Empirical evidence suggests that political parties have limited independent leverage over extractive policies. Their primary function is mediation and legitimation: encouraging communities; or at times pressuring them; to accept extractive projects in the name of modernization, national development, and future generations, rather than advocating for redistributive or ecological outcomes (Transnational Institute, 2021). As a result, decision-making power remains concentrated within state institutions and corporate actors. Trust in political parties is increasingly low, as they are perceived to prioritize access to power and resources over genuine representation of social and cultural interests.

The tension between state-led extractive strategies and grassroots claims is further intensified by the dual pressures on indigenous groups. On one hand, these communities compete for recognition of cultural and environmental rights before national and international institutions. On the other hand, the same institutions actively support extractive projects as a primary economic development strategy for Morocco and other Global South countries. Social movements often emerge from communities most affected by mining activities and are frequently organized with the support of opposition parties. However, these movements reflect reactive resistance rather than proactive policy

influence, highlighting the limited structural power of political parties in shaping extractive policy outcomes.

The complex relationship between social movements and their protest practices and Morocco's broader political crisis reveals a deep structural weakness in the country's traditional mechanisms of political mediation. Within a society undergoing unequal transformation, the intermediary political institutions that were historically channelled grievances; namely political parties and trade unions; have become increasingly ineffective in the social and political change. Morocco's political scene today is characterised by a complex paradoxical dynamic; a formal pluralism in the number of political parties, coexisting with a striking uniformity in their programs and discourses. Political parties, associations, and trade unions represent controlled spheres of engagement, where political agendas often overlap with short-term electoral strategies that are primarily framed around participation in a tightly managed political process rather than the pursuit of substantive policy alternatives or social justice (Zerhouni, 2019).

This convergence of party platforms has blurred ideological distinctions and eroded public trust, however the Internet and social media allowed young people to bypass state censorship, hierarchies, and the lack of internal democracy in formal political institutions (Zerhouni, 2019). Rather than articulating citizens' demands, many parties focus on maintaining proximity to power and securing access to state resources. Similarly, trade unions; historically rooted in political party structures, have largely lost their autonomy and became as Zarhouni argued a controlled sphere of engagement (2019). Their organisational logic mirrors that of their parent parties: hierarchical, clientelist, and constrained by allegiance to political elites. As a result, unions and parties as civil society actors alike have been unable to fulfil their traditional role as independent mediators between the state and society (Sater, J. N. 2007).

This vacuum in political representation has created fertile ground for the rise of new, extra-institutional forms of mobilisation. Grassroots movements (such as those in Imider, Jerada, and the Rif) have stepped in to fill the representational gap left by weakened formal institutions (Bouaz, A. 2020). These movements have developed their own repertoires of negotiation, protest, and conflict management, often relying on local solidarity networks, digital activism, and informal governance mechanisms. Their emergence highlights a critical shift in the nature of state–society relations: the decline of institutional mediation and the growing capacity of local actors to articulate grievances autonomously in the face of extractive and energy-related injustices.

As a result this exemplifies how the erosion of traditional political intermediaries not only undermines trust in representative institutions but also redefines the terrain of contention. Protest movements have become both a symptom and a consequence of a political system

that centralises decision-making while delegitimising participatory spaces. Thus, understanding Morocco's energy transition and its associated social conflicts requires recognising this deeper crisis of mediation; a condition where the boundaries between governance, resistance, and negotiation are continuously renegotiated outside conventional political frameworks.

5.4 Official narratives of extractivism and energy transition: (re)production of power relations

Historically, many countries in the Global South have relied on the export of natural resource-based commodities as the backbone of their economic development (World Trade Organization, 2015). This resource-driven growth model, though it has contributed to economic advancement in some contexts, often reinforces dependency on volatile global markets and external actors. Countries such as Morocco, which depend heavily on oil, gas, and mineral extraction, are classified among the world's middle-income economies (World Bank, 2017). However, for most resource-exporting nations in the Global South, revenues from these sectors remain the dominant source of national income, limiting economic diversification and deepening structural inequalities (Edwards, 2017).

Within this context, demands from social movements for social justice, transparency, and democracy often confront entrenched political and economic interests. To understand how these claims are resisted or neutralized, we examine the narratives employed by state and corporate actors to manage, deflect, or co-opt popular demands in ways that protect their own power and priorities (Moezzi et al., 2017).

Political elites, particularly those aligned with interests from the Global North, often find themselves defending extractivist projects that are increasingly contested and mired in tensions, leading to widespread protests and resistance (Hamouchene, 2022). In North Africa, it is the rural working poor and the unemployed who bear the brunt of these multidimensional crises. To justify and sustain extractive development models, political actors deploy various narratives to legitimize their actions and shape public understanding of social realities, events, and power relations.

Narratives can be understood as interpretive accounts of past events that not only assign meaning to social realities but also guide future actions. In contexts of conflict, they serve as tools through which actors articulate grievances, express claims, and defend or promote particular interests (Polletta & Chen, 2017; Verloo, 2018). Functioning as discursive strategies, narratives become mechanisms through which power is exercised—sometimes facilitating social transformation, but more often reinforcing control and limiting change. However, narratives are not inherently powerful or static; their influence emerges from how effectively they resonate with local cultural norms, perceptions, and

beliefs, and how closely they align with the lived experiences and social contexts of their audiences (Vervaecke, 2020).

5.4.1: The myth of extractivist promises: Modernization, energy security, and growth discourses

In the early stages, many less-developed regions embraced extractive industries with optimism, encouraged by corporate and state promises of development and job creation (Parks, 2021). Large corporations often portrayed extractive projects as engines of modernization and progress that would uplift local communities. However, as Acosta (2013) argues, extractivism rarely generates substantial employment because of its capital-intensive technologies and the prevalence of rent-seeking practices that concentrate benefits among elites.

In Morocco, official narratives similarly frame extractive projects and the green transition as essential for national modernization, energy security, and economic growth. Government discourse highlights initiatives such as the Noor Solar Complex and large-scale desalination plants as symbols of progress that will create jobs and secure prosperity for future generations. Yet, in practice, local residents are often engaged only in temporary, low-wage positions, with limited long-term benefits. This disjunction between promise and reality helps explain the persistent paradox of resource-rich regions where much of the population continues to live in poverty despite extensive natural wealth (Acosta, 2013).

5.4.2:“As They Did”: The Modernization Imperative and the Western Development Model

Official narratives in Morocco often draw parallels with the trajectories of industrialized nations such as the United States, Germany, and Scandinavian countries. These comparisons argue that industrialization, large-scale infrastructure, and the exploitation of natural resources were essential steps in achieving modern prosperity. Accordingly, Moroccan policymakers frame extractivism as a necessary stage of national development; one that will enable economic diversification, technological advancement, and energy security (Hamouchene, 2022; Camargo et al., 2020).

Such narratives portray resource extraction as a patriotic and forward-looking endeavor: a collective duty undertaken for the land, the people, and the generations to come (For our children). Projects like the Noor Ouarzazate Solar Complex or the Boucraa phosphate mines are often highlighted as symbols of progress, modernization, and Morocco’s leadership in renewable energy (World Bank, 2018; Bues, 2021).

However, critics contend that these narratives obscure the social and environmental costs of extractivism. Concepts such as “green colonialism” or “green grabbing” illustrate how sustainability rhetoric can mask practices of dispossession, land appropriation, and deepening inequality (Fairhead, Leach, & Scoones, 2012; Hamouchene, 2022). Local communities often face the depletion of water resources, loss of agricultural livelihoods, and exclusion from decision-making processes. Despite this, dissenting voices are frequently portrayed as uninformed, unpatriotic, or anti-developmental, reinforcing the idea that extractive projects are indispensable for Morocco’s progress and modernization.

5.5 Indigenous Perspectives and Responses to Extraction Projects and the Energy Transition

In the Central High Atlas of Morocco, traditional land management and its practices such as *“Agdal”* remain widely practiced. The institution of the *“Agdal”*, a local, communal system developed by the ancient Amazigh communities, serves to govern access to natural resources while embedding local conservationist and egalitarian values. Locally, the Agdal-System; typically includes a seasonal ban on herding often lasting three months in the spring; to allow vegetation to regenerate and to ensure equitable access to pasture for all households. Its integration within local religiosity and ethical norms reinforces a community-centered, environmentally sustainable approach to land management (Bencherifa, 1983; Bourbouze, 1997; Ilahiane, 1990).

These systems encompass high-altitude pastoral areas (above 2300 m) as well as wooded areas near villages, which serve as “standing granaries,” providing fodder for livestock, firewood, and timber. Agdal territories are governed by precise rules developed in village or inter-village assemblies *“Jmaâa”*, which define rights, usage periods, and enforcement mechanisms (Domínguez, 2021).

Local production systems combine three ecological layers, linking intensive irrigated agriculture with extensive livestock grazing, although these practices have undergone significant changes in recent decades (Fouilleron, 2004; Kerautret, 2005). Multi-use forest areas are essential for villagers, offering fodder, timber, firewood, and medicinal or aromatic plants. Verticality structures not only vegetation layers but also access: irrigated farmlands *“melk”* are privately managed by households, while sylvopastoral areas around villages *“Taqbilt”* are communal. Forested areas further from the valley are shared among multiple villages, though each often maintains preferred zones; these areas are subject to weaker governance and high exploitation pressure. High-altitude pastures are managed by multiple villages or tribal fractions, sometimes under Agdal rules with seasonal closures aligned with complex pastoral calendars (Domínguez, 2021).

Indigenous and Amazigh communities in the Moroccan High Atlas, whose livelihoods still depend on the integration of pastoralism and crop cultivation (Woodmansee et al., 2025),

maintain a deeply rooted perception of themselves as inseparable from the land. Their survival, culture, and identity are intrinsically linked to ecological stewardship and collective land management practices. The Agdal system, a traditional institution for the communal governance of natural resources, embodies this ecological knowledge. It regulates seasonal access to pastures and forests, ensuring resource regeneration and social equity among community members (Domínguez, 2021).

However, these traditional systems now face increasing pressure from both climate change and energy transition policies. Decreasing precipitation, changing land-use patterns, and socioeconomic transformations are leading to the erosion of biocultural knowledge and the weakening of communal management institutions (Soldal et al., 2023; El Aayadi et al., 2021). At the same time, large-scale renewable energy and extractive projects—often justified through national modernization narratives—are expanding into indigenous territories, intensifying competition over land and water resources. While the state frames these projects as engines of green growth and sustainability, local Amazigh communities perceive them as new forms of dispossession that threaten their autonomy and traditional ecological balance (Elder, 2022).

Extraction projects and energy transition initiatives, are often perceived as threats to these systems. Projects like the Imider mine have raised concerns about water depletion, damage to traditional irrigation systems *“khettara”*, and loss of grazing lands (EJAtlas, 2021; Al Jazeera, 2018). Responses by indigenous communities range from legal claims and consultation participation to encampments and direct action when formal channels fail. Cultural identity, customary governance, and intergenerational resource management play a key role in framing grievances and asserting legitimacy (The GroundTruth Project, 2020).

Foreign and transnational investment plays a crucial role in Morocco’s renewable and extractive sectors, enabling technology transfer and infrastructure expansion. However, the local effects are ambivalent. While projects improve macroeconomic indicators and sometimes create employment, they also intensify competition for water and land, and profits are frequently externalised rather than reinvested locally (Transnational Institute, 2021; EJAtlas, 2021). Local content and recycling measures often fall short of compensating for ecological and social costs. Tensions over job quality, revenue distribution, and technology dependency highlight wider concerns about neocolonial dynamics in global green supply chains.

Indigenous communities' responses integrate ecological, cultural, and socio-economic concerns. When official recognition or reparations are denied, communities often resort to sustained, visible forms of protest to assert their rights and protect their resources. The Agdal system exemplifies how traditional ecological knowledge and communal ethics can

guide land use sustainably while fostering social equity, even under pressures from modern extractive and industrial projects. Understanding the interaction between indigenous land governance systems like Agdal and state-led energy transition strategies is crucial. These local practices represent alternative, community-based models of sustainability that challenge top-down, extractivist approaches to the green transition.

6: Discussion

Morocco's energy transition reveals a complex negotiation between state-led modernization, corporate power, and local resistance. What stands out most is the profound asymmetry between those directing the transition and the marginalized communities who absorb its social and ecological costs. While official discourse celebrates renewable energy as a path toward modernization and sustainability, local movements (especially in Amazigh communities and rural regions) expose its continuities with older forms of extractivism, now rebranded as green (Barca, 2020; Bues & Sharp, 2022).

Rather than breaking from those extractivist logics, Morocco's transition reconfigures them. Large-scale, capital-intensive projects like Ouarzazate's Noor solar complex reproduce patterns of land appropriation, water depletion, and centralization of decision-making. The state's narrative, drawing parallels with the industrialization of Northern nations, frames extractivism as a patriotic duty and a necessary stage of progress. Yet this "developmental mirroring" conceals global inequalities: the Global North industrialized through extraction, while the Global South now supplies the green resources to sustain Northern decarbonization (Hamouchene, 2022; Fairhead et al., 2012).

Grassroots mobilizations in Imider, Jerada, and Ouarzazate articulate a counter-vision of energy justice. Their struggles for water, land, and dignity challenge both the material and symbolic dimensions of the green transition. As Haddad (2022) and Salime (2022) argue, these movements transform marginalized groups into agents of knowledge production, generating alternative understandings of sustainability grounded in care, memory, and communal reciprocity. The revival of indigenous governance systems like the Agdal reflects such counter-narratives; offering relational, regenerative approaches to resource use.

At the same time, the erosion of trust in political parties and unions weakens formal channels of mediation (Zerhouni, 2019; Sater, 2007). Their alignment with state agendas has turned them into legitimizing agents rather than representatives, pushing activism into informal arenas. This dynamic reinforces what McDonnell (2020) calls green authoritarianism: a governance model that pursues environmental goals through centralized, technocratic control, where "participation" remains largely procedural.

Ultimately, Morocco's energy transition is not only a technical or economic project; but it is also a social, political and epistemic one. Competing worldviews underpin it: the state's extractive vision of land as a resource contrasts sharply with Amazigh understandings of land as a living, interdependent entity. Recognizing and integrating indigenous ecological systems such as Agdal into national energy policies could help move from technocratic transition toward energy democracy—a model grounded in justice, reciprocity, and genuine participation. In his recent speech (July 2025), the King acknowledged that Morocco's development "moves at two speeds," a phrase that powerfully captures the country's growing social and regional inequalities. This dual-speed evolution (between urban centers and rural peripheries, between elites and marginalized youth) has become increasingly visible in the streets.

Conclusion: Rethinking energy transition in Morocco

While I am writing this conclusion, Morocco's "*Generation Z"* is taking to the streets; demanding dignity, health, education, jobs, and a voice in shaping their future. Their protests, often organized through social media and outside traditional political structures, express a profound sense of disillusionment but also a renewed political imagination. These mobilizations remind us that the question of social justice in Morocco is not abstract; it is alive, urgent, and unfolding in real time. They resonate deeply with the rural and local indigenous communities whose struggles I have analyzed throughout this research. Both movements (one rooted in ancestral land and another emerging in digital space) reveal a shared desire to reclaim agency from systems that have long concentrated power and privilege.

This study has sought to understand how state policies and social movements interact in shaping the Moroccan energy transition. What emerges is an intersectional complex picture of competing narratives. On the one hand, the state's promise of modernization, energy security, and sustainable growth, on the other, citizens' claims for basic rights, recognition, participation, and justice. The Moroccan case shows that the current model of transition (technocratic, growth-oriented, and centralized) has significant limits. Without confronting the distributive, procedural, and recognition-based dimensions of justice, renewable energy projects risk reinforcing the same inequalities and patterns of exclusion that characterized fossil-fuel capitalism, now under a "green" label.

As I reflect on these findings, it becomes clear that moving beyond green extractivism requires more than new technologies; it requires new politics. Morocco's energy transition must be reimagined as a democratic process that redistributes not only material benefits but also decision-making power. This involves: (1): Repoliticizing participation, so that local and national dialogues move from symbolic consultation to genuine co-decision. (2): Institutionalizing benefit-sharing mechanisms, allowing local communities and

marginalized youth to directly benefit from renewable energy projects. (3): Integrating indigenous governance systems, such as Agdal, whose ecological principles offer valuable lessons in sustainability and collective management. (4): Reconceptualizing development, moving beyond GDP and infrastructure growth to emphasize well-being, resilience, and ecological balance. These directions align with the idea of energy democracy, which envisions renewable transitions as opportunities to redistribute power and redefine citizenship; not merely to decarbonize the economy.

The findings of this paper reveal that; Morocco's transition toward renewable energy has been shaped by a complex intersection of political, economic, and social dynamics. State-led strategies, supported by foreign investment and framed through discourses of modernization and sustainability, have unified power within a narrow state–corporate alliance. While these strategies align rhetorically with Morocco's international commitments under the Paris Agreement and the United Nations 2030 Agenda for Sustainable Development, in practice they often reproduce existing inequalities and forms of exclusion. At the same time, local resistance movements and community-led initiatives have emerged as key actors contesting the centralized nature of energy governance. Their demands for social justice, land rights, fair water access, and meaningful participation expose the social and environmental costs hidden behind "green growth" narratives. Overall, the findings demonstrate that Morocco's renewable energy transition remains deeply political: it is not only about technological innovation but also about struggles over power, recognition, and justice. Ensuring a socially equitable and ecologically sustainable transition will require rethinking governance frameworks to integrate local knowledge, redistribute benefits, and enhance democratic participation.

In the end, the Moroccan energy transition cannot be understood as a purely technical or environmental issue. It is a deeply political project, embedded in historical continuities of extractivism and in new struggles for recognition and participation. As I finish writing, the protests of Morocco's youth (together with the long-standing resistance of rural local communities) remind us that the transition to renewable energy will only be just if it is also democratic. Their voices, rising from both villages and city streets, suggest that the future of energy in Morocco will depend not only on the sun and the wind — but on who gets to decide how they are used.

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Data Availability

All data generated or analysed during this study are included in this published article.

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Figures



Figure 1

In a scene reminiscent of the policing that has occurred in Standing Rock, police in Morocco march in parallel to the Indigenous villagers from Imider to prevent them from reaching the Managem silver mine. (Photo: Lokwood, 2016).



Figure 2

Noor Ouarzazate Solar Project complex (Photo: Ryser, 2018).



Figure 3

The villagers set up a resistance camp on Mount Alebban in 2011. The water valve turned off by the people of Imider (Photo: Nadir Bouhmouch) (Brour, 2020)