THIRD WORLD QUARTERLY
https://doi.org/10.1080/01436597.2021.2014315

Imagined inclusions into a 'green modernisation': local politics and global visions of Morocco's renewable energy transition

Christian Haddad[a,b], Cengiz Günay[a], Sherin Gharib[a] and Nadejda Komendantova[c]

[a]Austrian Institute for International Affairs—oiip, Vienna, Austria; [b]University of Vienna, Department of Science and Technology Studies, Vienna, Austria; [c]International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

ABSTRACT

Energy transitions in the Global South are typically said to sit somewhere between autocratic mega-projects with considerable fallout for local communities on the one hand, and promissory projects to foster a better, sustainable and more inclusive future on the other. Morocco's ambitious energy strategy entails the construction of 20 concentrated solar power (CSP) plants across the country and aims to provide energy security and position Morocco as an exporter of green energy. While energy transitions usually reflect existing power hierarchies, this article focuses on the dynamics Morocco's energy transition plan has set in motion at the local level in affected communities. Based on fieldwork in the province of Tata, where two CSP plants are planned, the article argues that the promising yet elusive vision of solar energy has created a space for political articulation and agency at the grassroots level. Morocco's energy transition is conceptualised in terms of an imaginary of 'green modernisation' that operates in two diverging dimensions: as an ideological glue legitimising and reproducing the regime's existing power by 'greening' its political-economic system; and as a site for novel forms of activism to problematise power structures and articulate demands for political participation, inclusion and public infrastructural investments.

ARTICLE HISTORY
Received 5 October 2020
Accepted 25 November 2021

KEYWORDS
Sociotechnical imaginaries
Morocco
green modernisation
energy transition
inclusive governance
participation and power
state power and civil society

Introduction

In 2009 Morocco launched its national energy strategy, which aims to radically shift energy production away from import-based fossil sources to renewables. The ambitious goal was to cover more than half of Morocco's power-generating capacities through renewables by 2030. This would not only increase the country's energy security but also make it into a 'green energy' exporter to Europe and Africa. Morocco's ambitions have resonated with global, and particularly European, debates on climate change mitigation and energy transition plans, and they have received considerable international recognition (Fritzsche, Zejli, and Tänzler

CONTACT Christian Haddad christian.haddad@oiip.ac.at

2011; Amegroud 2015; Far 2018). Western media and international finance institutions have presented the country's energy transition plans as a model for other so-called developing countries (Hicks 2016).

A cornerstone of the national energy strategy is the Solar Plan, which provides for the construction of more than 20 large- and medium-scale concentrated solar power (CSP) plants called *Noor* – Arabic for 'light' – across the country, many of them to be situated in marginalised rural areas. By 2019, three CSP plants (*Noor* I, II and III) located in Ouarzazate in south-central Morocco became operational. Covering a giant field with around two million mirrors, *Noor* Ouarzazate constitutes the world's largest CSP complex, producing around 6% of Morocco's total energy supply (Climate Home News 2019). The *Noor* plants are promoted as eco-friendly, high-tech industrial complexes that not only transform sunlight – often framed as Morocco's most abundant but underexploited natural resource (Rignall 2016) – into energy, but also stimulate local development (CNN 2018; MASEN 2020; Wuppertal Institute; Germanwatch 2015).

However, local communities have hardly been involved in the planning and implementation phases of the mega solar power plants, as experiences from CSP Ouarzazate indicate (Rignall 2016). In Ouarzazate, local communities faced a series of negative implications from the giant solar plants, including severe water shortages and the expropriation and nationalisation of community-owned land (Rignall 2016; Ryser 2019; Hamouchene 2016).

The top-down planning and implementation of the Solar Plan have come into conflict with the participative governance methods that have been deployed by the Moroccan government for many years. In line with the neoliberal 'inclusive development' policies propagated by international finance institutions, such as the International Monetary Fund (IMF) and the World Bank, Morocco has introduced participatory practices which have aimed to mobilise local know-how and expertise in marginalised rural and urban areas through the inclusion of stakeholders in the elaboration of local development strategies (Craig and Porter 2005; Berriane 2010; Bergh 2012b). Participatory governance practices have induced the multiplication and diversification of local actors and supported their regular exchange with state authorities. However, this has only superficially broken with the entrenched power relations between the state and local communities, as well as between donors and recipients (Lie 2015).

To begin with, although many observers have pointed to the emergence of a vivid and diversified civil society sector, participatory governance approaches have largely remained limited to narrow, thematic areas that do not touch upon delicate questions of power and high politics (Dalmasso 2014). Critical scholarship has thus argued that inclusive neoliberal governance methods have often served to 'redeploy' state power (Bergh 2012b) rather than enabling forms of true participation. Hence, these new governance arrangements are conceived of as pseudo-participatory spaces of 'controlled contestation' that serve to prevent 'real' democratic representation (Bergh 2017; Benchemsi 2012; Desrues 2013; Cavatorta 2016; Bogaert 2018).

In this article, we examine how participatory governance practices at the local level articulate with Moroccan energy politics, and what novel forms and spaces of political agency these articulations enable. The study of energy politics is particularly intriguing, as this is a policy field that has been dominated by national security considerations, the interests of the national elites, and international investors and a field that does not leave much space for 'inclusive' governance methods and local stakeholder participation. And yet, a closer look at the local reactions to the top-down implementation of the Solar Plan reveals not only

that civil society organisations have become indispensable partners for inclusive governance practices, but also that they have developed into channels through which local political demands are formulated. In the rural areas where the giant solar power plants are planned, an increasingly self-confident, knowledgeable and diverse local civil society sector has made itself heard. These developments indicate shifts in state–society power relations and governance practices beyond the narrow question of 'democratisation', as well as a proliferation of political visions of inclusive and sustainable development pathways.

This article builds on field research in Morocco's south-eastern province of Tata. In Tata, a predominantly rural area, Moroccan authorities have planned the construction of two solar power plants: a large-scale concentrated solar power complex in the commune of Akka Ighen and a medium-large complex in the commune of Taghmout. The mere announcement of the construction of the two plants has set in motion societal and political dynamics in Tata and has created the opportunity for local stakeholders to enter into negotiations with state authorities over the benefits for the local communities. Observations in Tata highlighted how the modernist rationality and top-down practices of the postcolonial Moroccan state (Wyrtzen 2011) have become problematised and challenged by young local civil society initiatives, which often articulate their demands through environmental issues.

To conceptually grasp the conjuncture of visions of modernisation and economic advancement through giant solar power projects and local communities' demands for a share in this vision, we draw on the concept of sociotechnical imaginaries (Jasanoff and Kim 2009). The concept allows us to analyse the ways in which narratives, visions and expectations of renewable energy and inclusive development have created a commonly shared frame of reference for multiple (and highly unequal) social actors to engage in debates over desirable development pathways for the country. We conceptualise Morocco's vision of modernisation and advancement through renewable energy technology as an imaginary of 'green modernisation' (Bergius and Buseth 2019). This imaginary has provided for a discursive toolbox, strategically deployed by different actors, to support, negotiate, criticise and contest the terms of modernisation in the country. Yet, as the promises of inclusive development policies and the projected benefits of green energy transition remain, at this point, contingent on the realisation of the solar power plants, we conceptualise these new spaces of articulation and interaction as sites of 'imagined inclusions' (Craig and Porter 2005) into a green global modernity.

The article proceeds as follows: after a brief note on methodology, we discuss energy transitions in the Global South driven by global discourses of inclusive green growth. We argue that these are embedded in broader political economic and geopolitical imaginaries and remain deeply anchored within modernist notions of development. On this basis, we analyse the broader political and economic contexts in which Morocco's Solar Plan has taken shape. We then turn to the south-eastern province of Tata as an imaginary construction site of Morocco's green modernisation and describe and analyse the ways in which the planned CSP plants have given rise to new forms of engagement between state representatives and local community-based associations. We conclude by discussing the forms of inclusions – imagined and actual – that characterise the state of Morocco's green modernisation.

Methodology and research process

This article draws on data gathered in the course of project-based fieldwork in April and October 2017 in Marrakesh, Agadir, Zagora, Ouarzazate and Tata.[1] Fieldwork was informed

by 'ethnographic sensibility' (Schatz 2013; , Pader 2015), which also involved a critical reflection of our positionality as researchers in a postcolonial context and the power asymmetries connected therewith (Huisman 2008; Karnieli-Miller, Strier, and Pessach 2009; Haddad and Benner 2021).[2] The field research included participatory observation, qualitative interviews and informal background conversations (see Table 1 for the sample of our interlocutors).[3] The first visit involved a series of 22 semi-structured interviews (ITV) with stakeholders at local, regional and national levels.[4] The semi-structured open-ended interviews aimed to explore interactions between locals and state authorities, the (anticipated) implications of the planned solar power plants for local communities, and people's expectations regarding the energy transition.

During the second visit, the authors co-organised two participatory events with the support of Moroccan project partners and local authorities in the province of Tata – a stakeholder forum (SF) and a focus group discussion (FGD). Around 40 persons participated in the SF. The FGD, organised the next day in a more informal setting, involved eight participants from local civil society organisations and two elected representatives from local communes. The FGD focussed primarily on the local dimensions of the energy transition, its links to local socio-economic development issues, and the role civil society associations can play in energy transition.

Energy transitions in the Global South: visions of modernisation through green technologies

Energy transitions are commonly understood as complex processes of managed change towards a more sustainable and effective use and provision of energy (Rutherford and

Table 1. Overview of fieldwork sample.

	Interviews (ITV) with 22 individuals (April 2017)	Stakeholder forum (SF) with over 40 participants (October 2017)	Focus group discussion (FDG) with 10 participants (October 2017)
Overview of fieldwork interlocutors and informants (selection)	• Governor of Tata • President of provincial council • Other council members • President of the Sousse-Massa region • Representative of ONEE (the national electricity distributor) • Young entrepreneur, Agadir • Local government representatives from Akka Ighen and Taghmoute • Regional civil society representatives from Agadir, Rabat and Casablanca • *Jema'a* civil society representatives, Tata • Young civil society representatives, Tata • German Development Agency (GiZ), Agadir and Tata	• 26 local civil society representatives • 4 local government representatives (Akka Ighen, Taghmoute, Foum Lahcen) • 2 state officials • 4 provincial council members (elected) • 2 German Development Agency members • 1 Austrian Climate Research Fund member	• Members of associations in the field of environment, energy transition and sustainable development • Members of youth associations • Local government representatives

Coutard 2014). Such processes require a whole range of political, social and economic transformations along with a set of changes in technology (O'Connor 2010; Sovacool et al. 2017). As these are anything but smooth processes, and involve conflicts over competing ideas, values and economic interests, they need to be conceptualised as political struggles (Burke and Stephens 2018) over a broader socio-ecological transformation (Brand, Görg, and Wissen 2020). The form and scale of energy transitions differ strongly according to the socio-political, economic and geographic context in which they unfold (Bridge et al. 2013; Gailing and Röhring 2016).

As complex and contentious processes, energy transitions are guided and accompanied by sociotechnical visions of desirable futures (Jasanoff and Kim 2009, 2013; Levenda et al. 2019; Longhurst and Chilvers 2019). As analytical concepts, sociotechnical imaginaries center on collective visions of desirable societal futures, and how such futures can be attained through advancements in science and technology – here, in particular, advancements in energy technologies and infrastructure. As such, imaginaries are sites where collective values, preferences and expectations become (re-)articulated and (re-)ordered alongside particular technological choices and infrastructural investments (Jasanoff and Kim 2009; Tidwell and Tidwell 2018). Imaginaries stabilise collectives by gluing together diverse social interests, values and meanings (Laclau 1996). Yet they do so despite (or because of) their constitutive indeterminacy. Imaginaries remain vague and elusive visions that allow for different interpretations and cannot be 'spelled out' in any precise and ultimate meaning. For instance, different actors can confer diverse and even contending meanings on notions such as 'renewable energy transition' or 'green modernisation'. This indeterminacy renders imaginaries as crucial sites for political negotiation and societal struggles over their concrete meanings and social implications. This shifts the perspective towards questions of power sensitive to both technological aspects and broader political-economic contexts.

In many cases, energy transition strategies in the Global South have evolved in tandem with sustainable development and inclusive green growth programmes that are promoted by international finance institutions, such as the IMF and the World Bank, from the early 2000s on (Bergius and Buseth 2019). Inclusive green growth suggests that developing countries can grow in a socio-environmentally sustainable way by using their natural resources more efficiently (World Bank 2012). In many countries of the Global South, green growth strategies have married with deeply entrenched postcolonial modernisation policies (de Souza et al. 2018). In that sense, instead of breaking with the postcolonial legacies of development and modernisation, green growth strategies have often merely 'greened' the predominant national modernisation paradigm (Bergius and Buseth 2019).

Renewable energy production has often been seen as another way of overcoming energy scarcity, by attracting international donors, boosting economic development and improving the image of the country (Moseley 2017; Bridge, Özkaynak, and Turhan 2018). All too often, however, energy transition has remained limited to investments in renewable energy production, while other aspects such as the improvement of energy efficiency, energy systems management or access to energy have often been marginalised or disregarded (Parthan et al. 2010). In many cases it has also not ruled out parallel investments in fossil-based energy production.

Energy transitions have usually been aligned with the requirements of a neoliberal globalised market (Wanner 2015; Buseth 2020). In the Global South, energy transitions have often been guided by technologist notions of progress and the output expectations of

international investors. This has supported a focus on large-scale concentrated renewable energy production systems, whereas decentralised, bottom-up projects have remained rare (Burke and Stephens 2018). One explanation for this trend may lie in the assumption that concentrated renewable energy production units allow central authorities to better control the energy market, as opposed to decentralised solutions at the grassroots level (Burke and Stephens 2018). Moreover, large-scale projects are not only more visible and seem more suitable to attract foreign investors, but they are also deemed more effective in producing large amounts of energy for the export to the international market.

Energy transition processes have hardly mitigated structural socio-economic inequalities in the Global South (Bäckstrand and Lövbrand 2006), nor have they induced democratisation (Burke and Stephens 2017). Instead, in many cases, by 'greening' the carbon-based economic and political power structures, energy transitions have actually supported the market domination of large transnational companies and helped preserve the hegemonic status quo (Baker, Newell, and Phillips 2014; Newell and Phillips 2016; Hansen et al. 2018; Buseth 2020; Allan, Lemaadel, and Lakhal 2021).

Moreover, in most cases, large-scale renewable energy projects have been implemented top down, without much public involvement (Anand, Gupta, and Appel 2018). Where they exist at all, consultative processes regarding energy transition have only been deployed in a way to create social acceptance for large-scale projects, rather than allowing for co-design or participation (Burningham, Barnett, and Thrush 2006; Hess and Sovacool 2020).

Nevertheless, as a survey (Hanger et al. 2016) in the community of Ouarzazate in Morocco reveals, affected communities in marginalised areas may show a high rate of acceptance of large-scale solar power plants, despite significant uncertainty regarding their concrete impact. The study highlights that acceptance was mainly driven by trust in the authorities, as well as expectations of socio-economic benefits from the CSP project for the communities.[5]

Situating Morocco's energy transition in broader socio-political power structures

Energy security and clean energy supply

Greening Morocco's economy is considered to be a royal vision. King Mohammed VI declared early on that energy availability, security of supply, environmental protection and development through green growth were the top priorities for his reign and would make the country internationally competitive (MASEN 2020). Morocco's national energy strategy, launched in 2009, forms part of this broader political vision of modernising the country through greening its economy (Cantoni and Rignall 2019).

The energy strategy has also been a response to Morocco's constantly growing demands for energy. Comprehensive electrification, demographic growth, increased standards of living, industrial development, urbanisation and the effects of climate change led to a tripling of the demand for energy in the years between 1999 and 2016 (Schinko et al. 2019). Estimates highlight that demand is likely to continue to grow, by 7% per year (Komendantova, Riegler, and Neumueller 2018). At present, Morocco can only meet these growing energy demands

through imports, which have increasingly piled pressure on the country's gross domestic product (Erdle 2010; Rignall 2016).

Hence, the national energy strategy aims to decrease dependence on energy imports, to reduce the impact of the price volatility of fossil fuels and to increase Morocco's energy self-sufficiency. The strategy sets the ambitious goal of meeting 42% of Morocco's power-generating capacity needs through renewables by 2020 and of increasing this share to 52% by 2030 (Steinbacher 2015). As part of its energy-transition strategy, Morocco has also liberalised the renewable energy market. This has included the creation of new financial mechanisms to stimulate private-sector investments and the fostering of a range of public–private partnerships. The country has also opened the high-voltage grid to private producers (Nachmany and Fankhauser 2015; Vidican 2015; Choukri, Naddami, and Hayani 2017). Meanwhile, privately owned large-scale power plants account for slightly over 50% of the country's electricity generation (Usman 2019). However, while Morocco's energy market was opened to large national and international corporates, the liberalisation of the low-voltage market, which would provide a huge potential for individual and community-based small-scale producers, has been pending for years (Choukri, Naddami, and Hayani 2017, Cantoni and Rignall 2019).

Besides large-scale wind parks and hydropower stations, the more than 20 planned large- and medium-scale CSP plants are a cornerstone of the energy-transition strategy (Cantoni and Rignall 2019). Investments of roughly USD 2.2 billion in the solar power plants aim not only to guarantee renewable energy for Morocco's own needs, but also to produce energy for export to the European and African markets (World Bank 2018; Fritzsche, Zejli, and Tänzler 2011).

Positioning Morocco as a producer of large amounts of 'clean' solar energy corresponds to European discourses on climate change and the mitigation goals of the European Union (Rignall 2016). In that regard, the Solar Plan joins a list of various geo-strategic visions of 'capitalising' on the sun in North Africa's desert regions for Europe's energy supply (de Souza et al. 2018), among which Desertec Industrial Initiative is the most prominent. Desertec provided the construction of a network of concentrated large-scale solar power plants across the Sahara region, as well as new high-voltage transmission lines connecting the Middle East and North Africa (MENA) region with the EU (Schmitt 2018). The aim was to source 15% of Europe's energy needs by 2050 from solar power generated from the MENA region (Carafa and Escribano 2017). Desertec failed due to a lack of public acceptance, geopolitical risk assessments, European protectionism and disputes over its implementation (Schmitt 2018; Carafa and Escribano 2017), but it laid the groundwork for the exploitation of desert regions for solar energy production and its export to Europe (Komendantova, Riegler, and Neumueller 2018). While such trans-regional infrastructure projects often shape postcolonial power relations between North and South (de Souza et al. 2018), Morocco's claim to power over West Sahara, which is also being maintained and expanded by means of energy infrastructure (Allan, Lemaadel, and Lakhal 2021), further complicates this picture.

The 'implementation' of a royal vision

The completion of the first stage of the Solar Plan, the giant *Noor* solar power plants in Ouarzazate, attracted international media attention and helped support Morocco's international image as a modern 'green' monarchy (Hicks 2016; Jenkins 2016; Schields and Masters

2019). The CSP plants involved substantial international investments from companies such as Acciona (Spain), ACWA (Saudi Arabia) and Shandong Electric Power Construction (China), and these plants are largely funded by the World Bank, the African Development Bank and the International Bank for Reconstruction and Development (IBRD) though the Clean Technology Fund, with guarantees from the Moroccan government and the Moroccan Agency for Sustainable Energy (MASEN).[6]

MASEN, together with the National Agency for Renewable Energies and Energy Efficiency (ADEREE) and the Energy Investment Company (SIE), have managed the planning, financing and implementation of the Solar Plan. Set up as limited public companies and overseen by the royal palace and the *makhzen* (the elites loyal to the palace), these three agencies represent hybrid governmental arrangements, where state policies, regime interests and the requirements of the market become condensed.

MASEN, which co-owns the *Noor* solar power plants along with a number of private companies and whose chief executive is appointed by the King, combines features of a public institution and a private company. The agency hosts competitive bidding processes, selects the private sponsors and establishes public–private partnerships. In addition, MASEN also purchases and sells the solar energy produced (Frisari and Stadelmann 2015). Moreover, the agency has also played a central role in the acquisition of communally owned pastoral land for the construction of the giant solar power plants in Ouarzazate and in Tata (FGD, Tata 2017). In both cases, MASEN set the price much lower than the market value and deposited the money from the sales into an account controlled by the Ministry of Interior (Hamouchene 2016; Rignall 2016). Local communities can only access the money through projects that must be approved by the ministry (FGD, Tata 2017). This kind of transfer of ownership of land from marginalised ethnic groups to powerful elites for purportedly environmental purposes constitutes a practice of 'green grabbing' that often thrives in postcolonial contexts (Fairhead, Leach, and Scoones 2012; Rignall 2016; Hamouchene 2016), and is a power instrument to subjugate and discipline marginal communities (Allan, Lemaadel, and Lakhal 2021).

Local politics and civil society organisations in hybrid political arrangements

In an executive monarchy like Morocco, the king is considered to be the 'linchpin around which other centers of political power revolve' (Bank, Richter, and Sunik 2014, 166). Although a constitutional reform in 2011 increased the role of the parliament and the government, the royal palace has managed to maintain its dominant position and continued to channel its interests through the *makhzen* and the key institutions of the state (Vidican 2015; Hamouchene 2016; Ryser 2019). This has led to the emergence of a hybrid system, characterised by the duality of elected and appointed authorities, where the latter are controlling elected bodies and define the radius of political activism (Berriane 2010).

The continuing dominance of the central state has been particularly tangible in rural areas. Despite administrative reforms that have aimed to decentralise the concentrated power structures, the governors have preserved their powerful position. Appointed by the king, the governors function as the extended arm of the interests of the monarch in the provinces, rather than the civil servants of the elected government – and local government representatives lament the confusion and collusion between these two perceived roles (FGD, Tata 2017). Although the constitutional reform of 2011 also increased the power of local

governments, their capabilities have been quite limited, as matters of security and finances have remained within the exclusive purview of the governors.

While political reforms have hardly broadened the room for democratic participation, they have supported the emergence of a growing and diverse civil society sector. Meanwhile, the number of non-governmental organisations (NGOs) in Morocco has reached more than 80,000 (Chtatou 2019). Many of them are grassroots organisations, established in marginalised urban and rural areas.

Moroccan civil society has evolved and operates under the conditions of an authoritarian state. The activities of NGOs are generally controlled by the Ministry of Interior. At t the local level, the mqaddem, persons appointed by state authorities monitor public order, and they oversee and report the daily activities of local NGOs (Berriane 2010). Hence, dependent on the approval of the state, observed and rigorously controlled by the authorities, Moroccan civil society organisations could hardly evolve into independent-control institutions that form a counterweight to the state. In consequence, most civil society organisations have tended to adopt a rhetoric that is indirectly, if at all, political and avoids openly challenging the regime and its policies (Dalmasso 2014). And yet, in the absence of strong democratic representation and due to the fact that, in the eyes of many citizens, political parties have become highly discredited, civil society organisations have been surrogates that have provided space for political agency (Cavatorta 2009).

Particularly in rural areas where political party structures are largely absent, NGOs have developed into channels for societal and political agency; however, they are limited to certain thematic areas. At the same time, NGOs have functioned as important links between the appointed state representatives and the rural communities. In that regard, NGOs in rural areas have often continued the role of the tribal *jema'a*, the traditional assembly presided by the *amghar*, an elder who is elected from within the community (Bergh 2009). The *jema'as* traditionally played an important role in regulating communal issues, such as the usage of water, the use of roads, or conflict settlement, but they were also intermediaries between the community and state authority (Bergh 2009). From the 1980s on, the *jema'as* have gradually transformed themselves into associations and cooperatives (FGD, Tata 2017). The fact that only recognised civil society organisations can participate in government- or donor-funded projects supported the conversion of *jema'as* into NGOs (Bergh 2009). Despite this conversion, however, generational hierarchies and clan alliances have continued to characterise the organisational structures of *jema'a*-based NGOs.

Local NGOs have also been indispensable partners of the neoliberal hybrid governance arrangements implemented in Morocco's economically marginalised areas. The Moroccan state – a 'stellar student of development policy trends since independence' (Cohen and Jaidi 2006, xvi) – has implemented inclusive neoliberal policies in line with the prescripts of the international financial institutions. 'Inclusive neoliberal' (Craig and Porter 2005) policies have promoted the 'decentralisation' of development and growth by mobilising local know-how and expertise through inclusion in participative governance methods. The National Initiative for Human Development (generally known by its French abbreviation, INDH) has been exemplary for Morocco's inclusive neoliberal development policies (Berriane 2010; Bergh 2012b). Implemented at the level of local governments, such as communes and urban neighbourhoods, the INDH has supported the establishment of local committees for development. In these committees, local government representatives and local NGOs, together with central

state authorities, jointly set the local development priorities (Bergh 2012a; Bergh 2017; Berriane 2010; Martín 2006).

Inclusive neoliberal policies have shifted the focus of development strategies to marginalised rural and urban areas, and they have allowed for the inclusion of local stakeholders in policy elaboration and implementation (Bergh 2012b; Craig and Porter 2006). However, participatory governance practices should not be hastily interpreted as political liberalisation, let alone democratisation. The inclusion of NGOs has remained limited to rather technical issues. They have not been integrated into any decision-making processes with a political dimension. Moreover, participatory governance structures have rather often reflected traditional local power hierarchies and they lack societal diversity.

Although the INDH has supported the 'marketisation' of local development by introducing open competition among local civil society organisations in calls for project proposals and the requirement of co-financing of these projects (Bergh 2012b, 411), usually, *jema'a*-based local NGOs with strong links to local governments and state authorities have been the beneficiaries. While *jema'a*-based NGOs have become indispensable partners of inclusive governance methods, smaller and younger initiatives have often been ignored. Yet energy transition plans have set dynamics within the communities in motion. Particularly in affected communities, such as Tata, where the construction of large-scale solar power plants is planned, local NGOs have diversified.

The state's green and sustainable growth strategies, and not least the United Nations' Climate Change Conference (COP 22) – which was held in Marrakesh in 2016 and used by the government to improve Morocco's 'green' image – have not only channelled economic promises on a national level, but have also inspired and mobilised many young people at the grassroots level. An emergent young generation of activists, focussing on questions of climate change mitigation, the environment and sustainability, has claimed a seat at the negotiation table over the terms of a better future. As we shall see subsequently, they challenge not only state policies and local power hierarchies, but also the very meaning of Morocco's sociotechnical imaginary of green modernisation.

Imaginary construction sites for an inclusive green modernity

Tata: centring the internal periphery

Within Morocco's political geography, Tata is off the beaten track. Borrowing the metaphor used by a representative of the national electricity distributor ONEE, Tata is situated *au bout de ligne* – at the end of the line – literally, in terms of the energy grid, but also in terms of other basic infrastructures and economic development (SF, Tata, October 2017). Not only does the energy power line end here, but after Tata, there is only the desert, small oases and the unyielding Algerian border.

Job opportunities and private investments have been scarce in the economically poor province. Most of Tata's approximately 120,000 inhabitants live in the rural parts of the province and make their living in oasis-based small agriculture. The region has been severely affected by climate change. Increasing levels of heat waves, sudden floods, water scarcity and rampant desertification have hit the province in recent years. Water scarcity and desertification have particularly affected agriculture, increasing the need for water pumps and

irrigation. Many young people leave the province for larger cities such as Marrakesh, Casablanca and Rabat to pursue higher education and to find jobs.

The prospect of the construction of two solar power plants has generated hopes about economic development and job opportunities in the province. As a legacy of modern state formation under the French Protectorate (1912–1956), 'development' and 'modernisation' have traditionally been driven by the capital, under the auspices of the central state, and have flown along transport routes (Peet and Hartwick 2015). The expansion of infrastructure and technology have also entailed the extension of the administrative powers of the central state (Wyrtzen 2011). More than 60 years after independence, and despite neoliberal market liberalisation, the state and its agencies have remained the major economic actors and employers in marginalised areas such as Tata. This has supported clientelism and perpetuated neo-patrimonial social relations.

Social structures in Tata are strongly influenced by ethnic Amazigh and tribal elements. Traditional *jema'a* structures have infused associations and local governments at the commune level and at the provincial level. Most of the local government representatives in Tata emerged from *jema'a*-based local associations. The *jema'as* have been considered by the central authorities as important links to the local communities. As Mahmoud, a local government representative in Tata, asserted, 'NGOs function as an intermediary for local state authorities; they function as a link to broader society' (ITV, Tata 2017). While the close collaborations between the governorate and the *jema'a* helped integrate local interests into the implementation of national policies, they have at the same time reinforced local power hierarchies and relations of authority based on tribal affiliation and principles of seniority.

By contrast, the rural youth and their emerging associations have often been excluded from participative governance settings, such as local development committees within the framework of the INDH, as well as from the financial support programmes (Giuliani et al. 2017). Young people often experience difficulties in accessing authorities, as they usually lack the social networks and material resources to do so (Ftouhi, Kadiri, and Mahdi 2020). Hence, the disaffection among a younger generation in rural areas has supported the adoption of positions and ideas that diverge from those of their elders. They have often developed political perspectives and strategies that lie outside the traditional structures of representation (Desrues and Garcia De Paredes 2021).

While other parts of Morocco have seen a growing youth movement, in Tata, this has led to the emergence of many small associations established and run by younger members of the communities. Many of them are professionals with higher educational degrees, who have returned to Tata from their studies in larger cities, not least because they have experienced a lack of opportunities as well as a sense of disconnection at the level of the national political system (Goeury and Deau 2019). Their political activism has focussed on the local rather than the national level, but their rhetoric and approach have been influenced by more global environmental discourses. This younger generation of activists is sensitive to local contexts and political debates – however, without being entrenched in local political dynamics (Goeury and Deau 2019).

As the effects of climate change are tangible in the rural areas of Tata, the majority of youth-based associations focus on climate change mitigation, environmental protection, sustainability and renewable energy at the grassroots level. These young local activists are

driven by the ambition to make a change and to transmit their new knowledge and skills to their communities (FGD, Tata 2017).

Negotiating the local in the national imaginary

Against this background, 'green modernisation' has served as transmission belt for local interests and a discursive toolkit through which a broad variety of political demands can be expressed without openly and directly challenging the regime. In the context of the stakeholder forum, the strikingly different interpretations of 'green modernisation' and diverging expectations from the construction of the two solar power plants became apparent.

The representatives of the central state have assessed the construction of solar power plants from a national perspective as one piece of a larger project to the benefit of the Moroccan nation. They have tended to downplay local demands and expectations from the solar plants. At the same time, however, they emphasised the importance of local governments and NGOs in creating public acceptance for this national project (SF, Tata 2017).

Local government representatives and NGOs, in turn, lamented their weak involvement. With reference to the mid-scale *Noor* plant planned in Taghmout, Hassan, a local government representative, complained about the lack of actual inclusion: 'What we can see here is more of a "DAD model" – decide, announce, defend. It's not truly inclusive for locals' (ITV, Taghmoute 2017). Férid, another local government representative, argued that 'authorities do not consult with us, they only visit when they need solutions in the implementation phase' (ITV, Tata 2017). Ahmed, a local government representative, emphasised, 'People in [my village] are not included into the question, which technology is chosen, or how things are done. Until now we have not benefited, and we will not benefit from large projects' (FGD, Tata 2017).

Local government representatives and the representatives of *jema'a*-based associations have mainly expected the solar power plants to contribute to sustainable development and job creation in the province. Aisha, from a local NGO, captured the local re-interpretation of green modernisation:

> We start dreaming of the impossible. We are waiting for this project to boost other development projects and to create dynamism in the local economy leading to job creation. I have a dream of making of Tata a green and sustainable province, and to adopt a participative partnership between public and private actors for the development of the province. (SF, Tata 2017)

Beyond that, local government representatives and NGOs have also demanded investments in education, infrastructure, hotels and ecological tourism. The example of *Noor* Ouarzazate, where mainly foreign workers were employed in the construction and hardly any jobs were created in the communes, has fuelled fears among local governments and NGOs in Tata. Ibrahim, representing a commune in Tata, asked, 'It is estimated that around 3000 workers will be there for the time of 5 years. So, will these workers be hired from the commune? So far no one has ever contacted the local authorities of the commune regarding a timetable' (SF, Tata 2017).

Another key concern uttered by several local stakeholders is the nexus between CSP technology and water supplies. The narratives of national development and market competitiveness have often ignored the fact that renewable energy technologies are highly

dependent on water. Specifically, CSP technology, as applied in Morocco, requires large volumes of water for the cooling and cleaning of panels (Komendantova et al. 2020). Ahmed highlights that 'ground water in Tata is mostly salty and cannot be used for the power station. […] This will lead to a decrease in already scarce good water resources' (ITV, Tata 2017). This would have serious effects for agriculture, the major source of income in the province.

The young 'green' associations have been the most vocal critics of large-scale CSP solar energy plants, and their demands have also been more political. As Farook, a young green activist, argued:

> *Noor* helps the state branding a good international image. It's a national project. It is only participative on the level of national market. It is presented as a privilege for Tata, but it is not clear how the state actually will make this happen. (FGD, Tata 2017)

Framing their political demands through criticism of the scale and form of Morocco's energy transition, these grassroots organisations have called for further decentralisation. Salma, another green activist, stated:

> Now, what we have here in Tata, is a centralised solution, centralised energy, distributed through the national grid. Tata is at the end of the electrical network. This has a lot of disadvantages – instability, frequency drops, and, of course, dependence. So decentralised energy production would better fit to our local needs. (FGD, Tata 2017)

The decentralisation of electricity production also has an economic dimension, as electricity costs around 200–300 Dirham, amounting to a substantive part of individual households' finances. In economically poor rural areas, many families can barely afford these prices (ITV with local government representative, Tata 2017). At the same time, as Ismail, a local resident of Ouarzazate, illustrated, any theft of electricity is punished with draconian penalties, including financial fines and jail sentences (ITV, Ouarzazate 2017).

Thus, dependence on the central energy grid has been symbolic of the economic and political dependence on decisions taken by the central state bureaucracy. Adil, from a local NGO, argued, 'decentralisation means that decisions are taken at the local level, while centralisation means top-down […] It is important to include the locals, to listen to the population, [but] this is not really done here' (FGD, Tata 2017).

Environmental activists demand international funding for their grassroots initiatives. As a matter of fact, many initiatives that promote decentralised and distributed individual solar energy production – such as rooftop photovoltaic panels – have failed because of the lack of funding by the state, a lack of professional coordination, and a lack of skilled personnel with know-how for maintenance. Hence, as Salma highlights: 'The communes ask for institutions and trainings for young people. It's the youngsters who maintain things, just with their own means' (FGD, Tata 2017). But decentralised governance is also rendered difficult due to the financial power of the governors vis-à-vis the communes. The governors, as representatives of the central state, control the flow of money. Rafik, a local representative of a commune in Tata, highlights: 'The local governments are only allocated small budgets. Basically, all investments, all activities need to be approved and funded by the governor. If you do not have the support of the governor, nothing works' (FGD, Tata 2017). This situation is aggravated by the fact that NGOs cooperating in development projects need to co-finance 30% of the project's budget (ITV, Tata 2017).

Conclusions

Conceived as a central pillar of Morocco's sociotechnical imaginary of green modernisation, the Solar Plan – shaped by global climate politics, regional geopolitical interests and neoliberal forms of governance – offers a nuanced perspective on the power structures in the kingdom. While energy transition seems to reproduce existing economic and political power hierarchies that exhibit only a little space for democratic deliberation or public participation, experiences from Tata highlight that energy transition has set in motion political dynamics at the local level.

The mere announcement of the construction of two solar power plants in the remote province of Tata has created a momentum that enabled a plethora of local actors to enter into negotiations with state representatives on the question of energy transition and its benefits for their communities. Critical observers might demur and suggest that the state engaged with local associations only after the final plan of the solar power plants was completed and that the range of topics that were open for discussion were limited to the aspects and terms of implementation. However, interactions between local civil society organisations and state representatives have highlighted the growing self-confidence of the former. Although local NGOs lack a democratic mandate, they have served as platforms through which local political demands have been channelled. The debates on the construction of the two solar plants also revealed the power dynamics within an increasingly diverse local civil society sector.

The vision of a better future to be attained through solar power production has empowered a young generation of environmental and climate activists. In Morocco's hybrid authoritarian setting, the imaginary of green modernisation has provided them with a generative discursive framework through which political criticism, claims and demands can be articulated. Environmental issues have been a vessel for broader political demands for investments, funding and political decentralisation. In that regard, this younger generation of local activists articulates and channels its actions through global discourses of green and inclusive development, discourses that consider the local level as the site where human and economic development takes place. Their articulations challenge and subvert the implicit meanings of the national sociotechnical imaginary. They question the material interests and values that guide the energy transition and its implementation, as well as the costs and benefits it entails for marginalised groups. By strategically referring to the hegemonic terms of *green and inclusive development*, as well as political participation and decentralisation, these activists create a reference frame that appears to neatly correspond to the dominant vision of the state. At the same time, it is precisely these terms that allow them to criticise what they found desperately wanting in the implementation of these political concepts. By articulating their demands through the central values and narratives that undergird the national Solar Plan, local activists have further been able to challenge traditional tribal and generational local power structures and position themselves as defenders of local interests and, at the same time, as part of a global movement against climate change.

So far, at least until their implementation, the two solar power plants in Tata remain only elusive spaces of green modernisation, imbued with different and potentially contending visions of renewable energy transition. Its promise of progress through solar energy production has not just been passively absorbed by local communities, but has actively shaped

a political imagination caught between the promise of a brighter future and a present found desperately wanting in many ways. In that sense, Tata represents an imaginary construction site of a green future. It is a site not only where new power plants are constructed, but also where collective aspirations of modernisation and development are performed, problematised, negotiated and redefined through a range of 'imagined inclusions' (Craig and Porter 2005, 228) – of local residents into political decision-making processes; of neglected margins into the national energy grid; of tradition-bound provinces into a green and sustainable modernity; and of Morocco into a global effort of green growth and renewable energy transitions. It remains to be seen whether these forms of inclusion at the local level will generate momentum to alter power relations in the entrenched regime of state power and authority, and whether they open spaces for sustainable and equitable development strategies alongside meaningful forms of inclusion and political participation. In that regard, Tata offers an intriguing and rather rare perspective on the ambiguities and tensions that confront the aspiration to transform and modernise Morocco's energy production and power system.

Acknowledgements

This research was conducted in the context of the interdisciplinary LINKS project (*Linking Climate Change Mitigation, Energy Security and Regional Development in Climate and Energy Model Regions in Austria*), funded by the Austrian Climate Research Program (2014–2017; in addition to core funding by IIASA. The contributing authors participated jointly in field research and were all involved in the initial conceptualisation of the study, data collection (field work), data analysis and literature review. Haddad and Günay were the leading authors in terms of the development of the theoretical approach, writing the original manuscript, and revisions after peer review. We thank our Moroccan project partners Mostafa El Jamea and Driss Zejli, Jakob Pallinger for his research assistance, and Sylvia Bergh, Katharina Nicolai, Julia Sachseder and three anonymous reviewers for their helpful and important comments on earlier drafts of this paper. Special thanks to Hugh Schmidt for final checks and proofreading.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by Klima- und Energiefonds (Austrian Climate Research Program, ACRP 7) (Project number KR14AC7K11935).

Notes on contributors

Christian Haddad is Senior Researcher at the Austrian Institute for International Affairs (oiip) and a lecturer in the Department of Science & Technology Studies at the University of Vienna. His research interests are condensed around the saliency of ideas and practices of 'innovation' in contemporary technoscientific capitalism, with an empirical focus on global health, security and research policy. He has recently completed a research project investigating sociotechnical visions of innovation in the Middle East and North Africa.

Cengiz Günay is Senior Researcher and the Deputy Director at the Austrian Institute for International Affairs (oiip) and a lecturer at the University of Vienna. His fields of research are neoliberal interventions, the transformation of statehood, autocratisation and Euro–Mediterranean relations. His regional focus lies on Turkey and the MENA region.

Sherin Gharib is a PhD candidate at the University of Vienna. She has been a researcher at the oiip and a lecturer at the University of Vienna and at the Vienna University of Economics and Business. Her fields of research include political transformation processes, state and non-state actors in the MENA region and the EU foreign and security policy towards the Middle East.

Nadejda Komendantova is a research scholar with the International Institute for Advanced Systems Analysis (IIASA). Her research interests include participatory and multi-risk governance of climate change mitigation and adaptation, based on the understanding of views and risk perceptions of involved stakeholders, of governance structures, market and civil society and of social institutions and political processes towards a more adaptive and inclusive governance approach, which is central to the science–policy interface.

Notes

1. Fieldwork was part of the LINKS project, funded by the Austrian Climate and Energy Fund, which aimed to disseminate Austrian experiences with different models of renewable energy production and governance. Based on these experiences, one Work Package examined whether and to what extent the adoption of 'decentralised models' could work in/for the Moroccan rural periphery. Critically reflecting on this research experience allowed us to move beyond the instrumentalist questions of policy transfer and stakeholder participation and develop a perspective on Morocco's green energy transition situated in broader conjunctures of state power, energy transitions and neoliberal governance.
2. This ethnographic sensibility of postcolonial context guided not just field observations and analysis, but also practices of 'data collection' and 'access' to field sites, interview partners, participants and informants. This sensitivity is of particular importance in a semi-authoritarian context where informants, interview partners and participants of focus group discussions and the stakeholder forum (state representatives as well as representatives of non-governmental organisations) are hesitant to be recorded and to sign an informed consent sheet, but eager to share information, experiences, views and opinions. In terms of research ethics, these circumstances require the combination of written information with oral information and oral consent.
3. Each interview partner and focus group discussion (FGD) participant was informed about the purpose of our research. Participation in interviews as well as the FGD was entirely voluntary. To maximise confidentiality, we use pseudonyms and avoid any link between direct quotes and particular organisations (Saunders, Kitzinger, and Kitzinger 2015). Conversations during interviews as well as at the two events were not recorded, to create a safe and confidential environment. Instead, hand-written notes from interviews, the stakeholder forum (SF) and the FGD were taken individually by the authors and then compared, complemented, transcribed and collated in an extended field research protocol. This protocol served as a basis for data analysis.
4. Interviews were conducted face-to-face by the authors. Interview partners were located and contacted by Moroccan project partners.
5. In a 60-km radius around Ouarzazate, 91% of households stated they were either completely in favour or in favour of the project. This was largely due to trust in the decision-making process and the authorities behind the energy transition. However, participants also highlighted that they did not feel well informed about the project. While 92% were not sure whether the project would have a positive or negative impact on the environment, the large majority expect that the project will generate positive economic effects for their communities. Finally, 54% of all respondents would like to be employed at the power station (Hanger et al. 2016).
6. Renamed in 2014; previously termed Moroccan Agency for *Solar* Energy.

ORCID

Christian Haddad https://orcid.org/0000-0001-9656-1619

Bibliography

Allan, J., M. Lemaadel, and H. Lakhal. 2021. "Oppressive Energopolitics in Africa's Last Colony: Energy, Subjectivities, and Resistance." *Antipode*. 1–20. doi:10.1111/anti.12765.

Amegroud, T. 2015. "Morocco's Power Sector Transition: Achievements and Potential." IAI Working Papers 15/05, Instituto Affari Internazionali. Accessed February 02, 2020. http://www.iai.it/sites/default/files/iaiwp1505.pdf

Anand, N., A. Gupta, and H. Appel, eds. 2018. *The Promise of Infrastructure*. Durham: Duke University Press.

Bäckstrand, K., and E. Lövbrand. 2006. "Planting Trees to Mitigate Climate Change: Contested Discourses of Ecological Modernization, Green Governmentality and Civic Environmentalism." *Global Environmental Politics* 6 (1): 50–75. doi:10.1162/glep.2006.6.1.50.

Baker, L., P. Newell, and J. Phillips. 2014. "The Political Economy of Energy Transitions: The Case of South Africa." *New Political Economy* 19 (6): 791–818. doi:10.1080/13563467.2013.849674.

Bank, A., T. Richter, and A. Sunik. 2014. "Durable, Yet Different: Monarchies in the Arab Spring." *Journal of Arabian Studies* 4 (2): 163–179. doi:10.1080/21534764.2014.971647.

Benchemsi, A. 2012. "Morocco: Outfoxing the Opposition." *Journal of Democracy* 23 (1): 57–69. doi:10.1353/jod.2012.0014.

Bergh, S. I. 2009. "Traditional Village Councils, Modern Associations, and the Emergence of Hybrid Political Orders in Rural Morocco." *Peace Review* 21 (1): 45–53. doi:10.1080/10402650802690060.

Bergh, S. I. 2012a. "Introduction: Researching the Effects of Neoliberal Reforms on Local Governance in the Southern Mediterranean." *Mediterranean Politics* 17 (3): 303–321. doi:10.1080/13629395.2012.725299.

Bergh, S. I. 2012b. "'Inclusive' Neoliberalism, Local Governance Reforms and the Redeployment of State Power: The Case of the National Initiative for Human Development (INDH) in Morocco." *Mediterranean Politics* 17 (3): 410–426. doi:10.1080/13629395.2012.725304.

Bergh, S. I. 2017. *The Politics of Development in Morocco: Local Governance and Participation in North Africa*. London: I.B. Tauris.

Bergius, M., and J. T. Buseth. 2019. "Towards a Green Modernization Development Discourse: The New Green Revolution in Africa." *Journal of Political Ecology* 26 (1): 57–83.

Berriane, Y. 2010. "The Complexities of Inclusive Participatory Governance: The Case of Moroccan: Associational Life in the Context of the INDH." *Journal of Economic and Social Research* 12 (1): 89–111.

Bogaert, K. 2018. *Globalized Authoritarianism: Megaprojects, Slums, and Class Relations in Urban Morocco*, Vol. 27. Minneapolis: University of Minnesota Press.

Brand, U., C. Görg, and M. Wissen. 2020. "Overcoming Neoliberal Globalization: Social-Ecological Transformation from a Polanyian Perspective and beyond." *Globalizations* 17 (1): 161–176. doi:10.1080/14747731.2019.1644708.

Bridge, G., S. Bouzarovski, M. Bradshaw, and N. Eyre. 2013. "Geographies of Energy Transition: Space, Place and the Low-Carbon Economy." *Energy Policy* 53 (C): 331–340. doi:10.1016/j.enpol.2012.10.066.

Bridge, G., B. Özkaynak, and E. Turhan. 2018. "Energy Infrastructure and the Fate of the Nation: Introduction to Special Issue." *Energy Research & Social Science* 41 (C): 1–11. doi:10.1016/j.erss.2018.04.029.

Burke, M., and J. Stephens. 2017. "Energy Democracy: Goals and Policy Instruments for Sociotechnical Transitions." *Energy Research & Social Science* 33: 35–48. doi:10.1016/j.erss.2017.09.024.

Burke, M. J., and J. C. Stephens. 2018. "Political Power and Renewable Energy Futures: A Critical Review." *Energy Research & Social Science* 35: 78–93. doi:10.1016/j.erss.2017.10.018.

Burningham, K., J. Barnett, and D. Thrush. 2006. "The Limitations of the NIMBY Concept for Understanding Public Engagement with Renewable Energy Technologies: A Literature Review." Beyond Nimbyism research project, Working Paper 1.3.

Buseth, J. T. 2020. "Narrating Green Economies in the Global South." In *Forum for Development Studies*, 48 (1): 1–23. Routledge. doi:10.1080/08039410.2020.1858954.

Cantoni, R., and K. Rignall. 2019. "Kingdom of the Sun: A Critical, Multiscalar Analysis of Morocco's Solar Energy Strategy." *Energy Research & Social Science* 51: 20–31. doi:10.1016/j.erss.2018.12.012.

Carafa, L., and G. Escribano. 2017. "Renewable Energy in the MENA. Why Did the Desertec Approach Fail." In *Handbook of Transition to Energy and Climate Security*, edited by Looney, R. E., 66–78. New York: Routledge.

Cavatorta, F. 2009. "'Divided They Stand, Divided They Fail': opposition Politics in Morocco." *Democratization* 16 (1): 137–156. doi:10.1080/13510340802575882.

Cavatorta, F. 2016. "Morocco: The Promise of Democracy and the Reality of Authoritarianism." *The International Spectator* 51 (1): 86–98. doi:10.1080/03932729.2016.1126155.

Choukri, K., A. Naddami, and S. Hayani. 2017. "Renewable Energy in Emergent Countries: lessons from Energy Transition in Morocco." *Energy, Sustainability and Society* 7 (1): 25. doi:10.1186/s13705-017-0131-2.

Chtatou, M. 2019. "A Strong Civil Society Is the Only Acceptable Future of Morocco." *Morocco World News*. Accessed March 10, 2020. https://www.moroccoworldnews.com/2019/10/283930/strong-civil-society-future-morocco/

Climate Home News. 2019. "Solar Plant the Size of San Francisco Powers Morocco's Sunlit Ambitions." 22 January. Accessed March 10, 2020. https://www.climatechangenews.com/2019/01/22/solar-plant-size-3500-football-pitches-powers-moroccos-sunlit-ambitions/

CNN. 2018. "Morocco's Megawatt Solar Plant Powers Up." Accessed January 18, 2020. https://edition.cnn.com/2016/02/08/africa/ouarzazate-morocco-solar-plant/index.html

Cohen, S., and L. Jaidi. 2006. *Morocco: Globalization and Its Consequences*, Vol. 6. London: Routledge.

Craig, D., and D. Porter. 2005. "The Third Way and the Third World: poverty Reduction and Social Inclusion Strategies in the Rise of 'Inclusive' Liberalism." *Review of International Political Economy* 12 (2): 226–263. doi:10.1080/09692290500105524.

Craig, D. A., and D. Porter. 2006. *Development beyond Neoliberalism? Governance, Poverty Reduction and Political Economy*. London: Routledge.

Dalmasso, E. 2014. "Apolitical Civil Society and the Constitutional Debate in Morocco." In *Informal Power in the Greater Middle East: Hidden Geographies*, edited by L. Anceschi, G. Gervasio, and A. Teti, 146–157. London: Routledge.

de Souza, L. E. V., E. M. G. R. L. Bosco, A. G. Cavalcante, and L. da Costa Ferreira. 2018. "Postcolonial Theories Meet Energy Studies: "Institutional Orientalism" as a Barrier for Renewable Electricity Trade in the Mediterranean Region." *Energy Research & Social Science* 40: 91–100. doi:10.1016/j.erss.2017.12.001.

Desrues, T. 2013. "Mobilizations in a Hybrid Regime: The 20th February Movement and the Moroccan Regime." *Current Sociology* 61 (4): 409–423. doi:10.1177/0011392113479742.

Desrues, T., and M. Garcia De Paredes. 2021. "Participation, Association-Building and Dissent in North Africa: The Various Dimensions of Youth Activism, from the Fall of Ben Ali to the Revolt against Bouteflika (2011–2019)." *The Journal of North African Studies* 26 (2): 188–205. doi:10.1080/13629387.2019.1665274.

Erdle, S. 2010. "The DESERTEC Initiative: Powering the Development Perspectives of Southern Mediterranean Countries?" (No. 12/2010). Discussion Paper.

Fairhead, J., M. Leach, and I. Scoones. 2012. "Green Grabbing: A New Appropriation of Nature?" *Journal of Peasant Studies* 39 (2): 237–261. doi:10.1080/03066150.2012.671770.

Far, S. 2018. "Renewable Energy: A Key to Enhancing the Societal Dimension of Energy Transitions in Morocco; Recommendations for Future Cooperation." (BICC Policy Brief, 6/2018). Bonn: Bonn International Center for Conversion (BICC). https://nbn-resolving.org/urn:nbn:de:0168-ssoar-62334-4

Frisari, G., and M. Stadelmann. 2015. "De-Risking Concentrated Solar Power in Emerging Markets: The Role of Policies and International Finance Institutions." *Energy Policy* 82: 12–22. doi:10.1016/j.enpol.2015.02.011.

Fritzsche, K., D. Zejli, and D. Tänzler. 2011. "The Relevance of Global Energy Governance for Arab Countries: The Case of Morocco." *Energy Policy* 39 (8): 4497–4506. doi:10.1016/j.enpol.2010.11.042.
Ftouhi, H., Z. Kadiri, and M. Mahdi. 2020. "The Civil Society, the Commune, the Parliament: Strategies for Political Promotion of Young Rural Leaders in the Province of El Hajeb, Morocco." *Revista de Estudios Internacionales Mediterráneos* 28: 86–103. doi:10.15366/reim2020.28.005.
Gailing, L., and A. Röhring. 2016. "Is It All about Collaborative Governance? Alternative Ways of Understanding the Success of Energy Regions." *Utilities Policy* 41: 237–245. doi:10.1016/j.jup.2016.02.009.
Giuliani, A., S. Mengel, C. Paisley, N. Perkins, I. Flink, O. Oliveros, and M. Wongtschowski. 2017. "Realities, Perceptions, Challenges and Aspirations of Rural Youth in Dryland Agriculture in the Midelt Province, Morocco." *Sustainability* 9 (6): 871. doi:10.3390/su9060871.
Goeury, D., and O. Deau. 2019. "Peut-on parler d'une génération «20 février»? Interroger la jeunesse urbaine marocaine: Identité politique et participation." *Revista de Estudios Internacionales Mediterráneos* 26: 23–42.
Haddad, C., and M. Benner. 2021. "Situating Innovation Policy in Mediterranean Arab Countries: A Research Agenda for Context Sensitivity." *Research Policy* 50 (7): 104273. doi:10.1016/j.respol.2021.104273.
Hamouchene, H. 2016. "The Ouarzazate Solar Plant in Morocco: Triumphal "Green" Capitalism and the Privatization of Nature." *Jadaliyya*. Accessed April 01, 2020. https://www.jadaliyya.com/Details/33115
Hanger, S., N. Komendantova, B. Schinke, D. Zejli, A. Ihlal, and A. Patt. 2016. "Community Acceptance of Large-Scale Solar Energy Installations in Developing Countries: Evidence from Morocco." *Energy Research & Social Science* 14: 80–89. doi:10.1016/j.erss.2016.01.010.
Hansen, U. E., I. Nygaard, H. A. Romijn, A. J. Wieczorek, L. M. Kamp, and L. Klerkx. 2018. "Sustainability Transitions in Developing Countries: Stocktaking, New Contributions and a Research Agenda." *Environmental Science & Policy* 84: 198–203. doi:10.1016/j.envsci.2017.11.009.
Hess, D., and B. Sovacool. 2020. "Sociotechnical Matters: Reviewing and Integrating Science and Technology Studies with Energy Social Science." *Energy Research and Social Science* 65: 1014–1062.
Hicks, C. 2016. "Morocco Lights the Way for Africa on Renewable Energy." *The Guardian*. Accessed February 07, 2021. https://www.theguardian.com/global-development/2016/nov/17/cop22-host-morocco-lights-way-africa-renewable-energy-2020
Huisman, K. 2008. ""Does This Mean You're Not Going to Come Visit Me Anymore?": An Inquiry into an Ethics of Reciprocity and Positionality in Feminist Ethnographic Research." *Sociological Inquiry* 78 (3): 372–396. doi:10.1111/j.1475-682X.2008.00244.x.
Jasanoff, S., and S.-H. Kim. 2009. "Containing the Atom: Sociotechnical Imaginaries and Nuclear Regulation in the U.S. and South Korea." *Minerva* 47 (2): 119–146. doi:10.1007/s11024-009-9124-4.
Jasanoff, S., and S.-H. Kim. 2013. "Sociotechnical Imaginaries and National Energy Policies." *Science as Culture* 22 (2): 189–196. doi:10.1080/09505431.2013.786990.
Jenkins, S. 2016. "Morocco Blazes Solar Power Trail." *Financial Times*. Accessed February 07, 2021. https://www.ft.com/content/10f999fc-945b-11e6-a1dc-bdf38d484582
Karnieli-Miller, O., R. Strier, and L. Pessach. 2009. "Power Relations in Qualitative Research." *Qualitative Health Research* 19 (2): 279–289. doi:10.1177/1049732308329306.
Komendantova, N., M. Riegler, and S. Neumueller. 2018. "Of Transitions and Models: Community Engagement, Democracy, and Empowerment in the Austrian Energy Transition." *Energy Research & Social Science* 39: 141–151. doi:10.1016/j.erss.2017.10.031.
Komendantova, N., L. Marashdeh, L. Ekenberg, M. Danielson, F. Dettner, S. Hilpert, C. Wingenbach, K. Hassouneh, and A. Al-Salaymeh. 2020. "Water–Energy Nexus: Addressing Stakeholder Preferences in Jordan." *Sustainability* 12 (15): 6168. doi:10.3390/su12156168.
Laclau, E. 1996. "Why Do Empty Signifiers Matter in Politics?" In *Emancipations*, edited by E. Laclau. 36–46 London: Verso.
Levenda, A. M., J. Richter, T. Miller, and E. Fisher. 2019. "Regional Sociotechnical Imaginaries and the Governance of Energy Innovations." *Futures* 109: 181–191. doi:10.1016/j.futures.2018.03.001.
Lie, J. H. S. 2015. "Developmentality: Indirect Governance in the World Bank–Uganda Partnership." *Third World Quarterly* 36 (4): 723–740. doi:10.1080/01436597.2015.1024435.

Longhurst, N., and J. Chilvers. 2019. "Mapping Diverse Visions of Energy Transitions: Co-Producing Sociotechnical Imaginaries." *Sustainability Science* 14 (4): 973–990. doi:10.1007/s11625-019-00702-y.

Martín, I. 2006. "Morocco: The Bases for a New Development Model? (I): The National Initiative for Human Development (INDH)." Area: Mediterranean & Arab World, ARI 35/2006, Date: 4/5/2006.

MASEN. 2020. "A Royal Vision – King Mohammed VI Speech at National Energy Conference." March 6, 2009. Accessed January 17, 2020. http://www.masen.ma/en/the-story#

Moseley, W. 2017. "The New Green Revolution for Africa: A Political Ecology Critique." *The Brown Journal of World Affairs* 23 (2): 177–190.

Nachmany, M., and S. Fankhauser. 2015. "The 2015 Global Climate Legislation Study: A Review of Climate Change Legislation in 99 Countries: Summary for Policy-Makers." Accessed March 13, 2020. http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/05/Global_climate_legislation_study_20151.pdf

Newell, P., and J. Phillips. 2016. "Neoliberal Energy Transitions in the South: Kenyan Experiences." *Geoforum* 74: 39–48. doi:10.1016/j.geoforum.2016.05.009.

O'Connor, P. A. 2010. "Energy Transitions." The Pardee Papers 12. Boston: Boston University, The Frederick S. Pardee Center for the Study of the Longer-Range Future. Accessed March 30, 2020. https://www.bu.edu/pardee/files/2010/11/12-PP-Nov2010.pdf

Pader, E. 2015. "Seeing with an Ethnographic Sensibility: Explorations beneath the Surface of Public Policies." In *Interpretation and Method: Empirical Research Methods and the Interpretive Turn*, edited by D. Yanow and P. Schwartz-Shea, 194–208. London: Routledge.

Parthan, B., M. Osterkorn, M. Kennedy, S. J. Hoskyns, M. Bazilian, and P. Monga. 2010. "Lessons for Low-Carbon Energy Transition: Experience from the Renewable Energy and Energy Efficiency Partnership (REEEP)." *Energy for Sustainable Development* 14 (2): 83–93. doi:10.1016/j.esd.2010.04.003.

Peet, R., and E. Hartwick. 2015. *Theories of Development: Contentions, Arguments, Alternatives*. New York: Guilford Publications.

Rignall, K. E. 2016. "Solar Power, State Power, and the Politics of Energy Transition in Pre-Saharan Morocco." *Environment and Planning A: Economy and Space* 48 (3): 540–557. doi:10.1177/0308518X15619176.

Rutherford, J., and O. Coutard. 2014. "Urban Energy Transitions: Places, Processes and Politics of Socio-Technical Change." *Urban Studies* 51 (7): 1353–1377.

Ryser, S. 2019. "The Anti-Politics Machine of Green Energy Development: The Moroccan Solar Project in Ouarzazate and Its Impact on Gendered Local Communities." *Land* 8: 100. doi:10.3390/land8060100.

Saunders, B., J. Kitzinger, and C. Kitzinger. 2015. "Anonymising Interview Data: Challenges and Compromise in Practice." *Qualitative Research* 15 (5): 616–632.

Schatz, E., ed. 2013. *Political Ethnography: What Immersion Contributes to the Study of Power*. Chicago: University of Chicago Press.

Schields, N., and J. Masters. 2019. "Morocco in the Fast Lane with the World's Largest Concentrated Solar Farm." CNN. Accessed February 08, 2021. https://edition.cnn.com/2019/02/06/motorsport/morocco-solar-farm-formula-e-spt-intl/index.html

Schinko, T., S. Bohm, N. Komendantova, E. M. Jamea, and M. Blohm. 2019. "Morocco's Sustainable Energy Transition and the Role of Financing Costs: A Participatory Electricity System Modeling Approach." *Energy, Sustainability and Society* 9 (1): 1. doi:10.1186/s13705-018-0186-8.

Schmitt, T. M. 2018. "(Why) Did Desertec Fail? An Interim Analysis of a Large-Scale Renewable Energy Infrastructure Project from a Social Studies of Technology Perspective." *Local Environment* 23 (7): 747–776. doi:10.1080/13549839.2018.1469119.

Sovacool, B. K., M. Burke, L. Baker, C. K. Kotikalapudi, and H. Wlokas. 2017. "New Frontiers and Conceptual Frameworks for Energy Justice." *Energy Policy* 105: 677–691. doi:10.1016/j.enpol.2017.03.005.

Steinbacher, K. 2015. "Drawing Lessons When Objectives Differ? Assessing Renewable Energy Policy Transfer from Germany to Morocco." *Assessing Renewable Energy Policy Transfer from Germany to Morocco*.

Tidwell, J. H., and A. S. Tidwell. 2018. "Energy Ideals, Visions, Narratives, and Rhetoric: Examining Sociotechnical Imaginaries Theory and Methodology in Energy Research." *Energy Research & Social Science* 39: 103–107. doi:10.1016/j.erss.2017.11.005.

Usman, Z. 2019. "What Can Developing Countries Learn from Morocco's Experience with Power Sector Reforms?" Accessed April 01, 2020. https://blogs.worldbank.org/energy/what-can-developing-countries-learn-moroccos-experience-power-sector-reforms

Vidican, G. 2015. "The Emergence of a Solar Energy Innovation System in Morocco: A Governance Perspective." *Innovation and Development* 5 (2): 225–240. doi:10.1080/2157930X.2015.1049852.

Wanner, T. 2015. "The New 'Passive Revolution' of the Green Economy and Growth Discourse: Maintaining the 'Sustainable Development' of Neoliberal Capitalism." *New Political Economy* 20 (1): 21–41. doi:10.1080/13563467.2013.866081.

World Bank. 2012. "Inclusive Green Growth. The Pathway to Sustainable Development." https://openknowledge.worldbank.org/bitstream/handle/10986/6058/9780821395516.pdf?sequence=1&isAllowed=y

World Bank. 2018. "Project Paper on a Proposed Additional Loan in the Amount of US$25 Million to the Moroccan Agency for Sustainable Energy (MASEN)." Report No. PAD2642. http://documents1.worldbank.org/curated/en/138481528687821561/pdf/Morocco-Noor-AF-project-paper-P164288-May17-clean-05212018.pdf

Wuppertal Institute; Germanwatch. 2015. "Social CSP – Energy and Development: Exploring the Local Livelihood Dimension of the Nooro I CSP Project in Southern Morocco." Final report to the German Federal Ministry for Economic Cooperation and Development (BMZ). Wuppertal Institute for Climate, Environment and Energy: Wuppertal; Germanwatch: Bonn. www.wupperinst.org/en/projects/details/wi/p/s/pd/449/

Wyrtzen, J. 2011. "Colonial State-Building and the Negotiation of Arab and Berber Identity in Protectorate Morocco." *International Journal of Middle East Studies* 43 (2): 227–249. doi:10.1017/S0020743811000043.