8

Conclusion

> We have everything we need to get started, save perhaps political will, but political will is a renewable resource. So let us renew it and say together: "We have a purpose. We are many. For this purpose, we will rise, and we will act."
>
> –*Al Gore,* Nobel Peace Prize Lecture*, Norway, Oslo, 2007*

As the world moves with increasing urgency to mitigate climate change and catalyze energy transitions to net zero, understanding the mechanisms that will unlock barriers to energy transitions are of the utmost importance. Transitions in Indonesia and the Philippines have progressed in fits and starts over time, with important differentiations as exemplified in their histories of geothermal development. The Philippines' rapid geothermal development followed a domestic energy crisis triggered by impacts from the 1973 oil crisis. However, the rapid development was followed by a plateau and waning productivity in recent years. Comparatively, Indonesia's slow start but steady uptick in geothermal development followed the country's shift from being an oil exporter to an importer in the wake of rising energy insecurity. Throughout their histories of energy transitions, Indonesia and the Philippines have received billions in targeted development aid to support climate mitigation through clean energy technology deployment. These two different tales of energy transitions demonstrate the domestic factors that have hindered or facilitated progress: energy insecurity and political will fluctuated at different periods in both the Philippines' and Indonesia's energy transition trajectory. As a result, the clean energy regime complex's relative impacts in addressing domestic political barriers to energy transitions vary over time across these cases.

The book examines how the clean energy regime complex – the fragmented, complex sphere of governance in the clean energy issue area characterized by proliferating and overlapping international institutions – can be effective in fostering energy transitions at the domestic level, particularly in EMDEs. The clean energy regime complex can impact domestic politics and facilitate demonstrable

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change in renewable energy development in EMDEs through the utility modifier, social learning, and capacity-building mechanisms. The cases of Indonesia and the Philippines demonstrate how the clean energy regime complex has impacted renewable energy adoption and geothermal development by supporting the convergence of domestic political interests around an energy transition. Regime complex impacts are visible through policy dialogues that reframe conceptualizations of risk around geothermal exploration drilling, providing training for registering projects with the CDM to solidify the connection between renewable energy technologies and emissions reduction, or by providing integral financing to attract private investment to geothermal projects.

Across these cases, the book argues that the clean energy regime complex is most effective when there is political will and an urgency to diversify the energy supply with renewables to improve energy security. The clean energy regime complex mechanisms address domestic barriers to renewable energy policy adoption and technology deployment in different but interrelated ways that enhance regime complex effectiveness when combined. Each mechanism on its own is insufficient to create transformative change. While clean energy financing is critically important across cases, without normative change – as fostered through policy dialogues between government ministries and development banks, international negotiations, or bottom-up pressure from transnational advocacy networks – it is unlikely that project-level finance will scale beyond individual projects to foster an energy transition. The capacity-building mechanism – through trainings, workshops, and technical assistance – is an important aspect of the clean energy regime complex that supports the development of technical and institutional capacity to develop projects and implement regulations that will ensure long-term self-reliance beyond the end of projects supported by development aid.

Since the Paris Agreement was signed in 2015, a tremendous global shift has taken place in the salience of climate change, the prioritization of renewable energy as a primary solution for climate mitigation, and the integration of clean energy into the foundation of sustainable development norms. A newly emerged norm around the "just transition" underlines the importance of a global energy transition that is just and equitable for all and avoids perpetuating global inequalities. The creation of new mechanisms like the JETP and the ADB's Energy Transition Mechanism exemplify these emerging norms and priorities. One of the biggest selling points for transitioning to net zero is the plethora of economic benefits at the domestic level, such as the substantive workforce development, green industrial development, and economic growth that follows investment in growing domestic renewable energy industries as part of the just transition. The just transition outcomes ensure that all communities can take part in the benefits of projects, including Indigenous communities directly impacted

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by project development, whether through inclusive and representative procedural justice processes or through the shared benefits of compensation. The normative shift around just energy transitions has transformed the way that the world reexamines climate mitigation and clean energy technology development as intertwined with economic growth and the distribution of benefits and costs of climate change.

Theoretical Discussion of Regime Complex Effectiveness

Through the examination of clean energy regime complex effectiveness, this book provides important insights into how our increasingly complex and fragmented global governance can help solve global problems and impact change at international and domestic levels. This book adopts a *problem-solving* or *process* approach to measuring the effectiveness of the clean energy regime complex in solving the governance problem around which institutions are designed, with a focus on domestic-level impacts. The incorporation of domestic politics into measures of regime complex effectiveness is essential for understanding impacts beyond the international institutional landscape. We cannot understand how the clean energy regime complex unlocks barriers to energy transitions in EMDEs without also examining how change manifests at the domestic level. While climate change is a global problem, the solutions ultimately reside with domestic-level changes through policy change and technology deployment to mitigate carbon emissions.

As global problems become increasingly complex, governance solutions follow suit. The findings in this book help us understand the variable impacts we can expect from complex governance solutions and the conditions under which we can expect them to be effective in implementing change at the domestic level. The cases of geothermal development in Indonesia and the Philippines are illustrative of the dynamics between global governance and technology deployment in EMDEs, and the near-universal challenge of overcoming domestic political barriers. I thus provide evidence that while a regime complex is not structured and designed to secure compliance like formal, integrated regimes, it is instead effective in addressing barriers to renewable energy development and influencing normative change. There is no one silver bullet to solve climate change and usher in a global energy transition to net zero, and certainly not one solution that can be applied to every national context. Rather, many moving parts and solutions must aggregate across scales to catalyze the world to net zero. Thus complex and fragmented governance embodies the form and structure of governance possibly best suited and most realistic for transformational, multi-scalar global change. When we understand

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the conditions under which regime complexes can be effective, we are better equipped to solve the complex global problem at hand.

Regime Complex Mechanisms as a Generalizable Framework

The framework provided in this book for examining regime complex effectiveness through three mechanisms – utility modifier, social learning, and capacity-building mechanisms – is focused on the clean energy issue area and the clean energy regime complex. The matrix of lock-in provides a useful framework for understanding the conditions under which a regime complex can be effective in supporting an energy transition along the spectrum of relative strength of domestic political will and energy security concerns. The framework is applicable to examining regime complex effectiveness for other EMDEs undergoing energy transitions and a variety of clean energy technologies, such as solar or wind.

The framework is furthermore applicable to other issue areas governed by a regime complex, particularly where development aid and technology transfer are integral to the regime complex. The mechanisms of utility modifier, social learning, and capacity building are the functional embodiment of the provision of resources through development aid. Examples of complementary issues areas wherein the regime complex mechanisms of effectiveness could provide a valuable framework for further study include global health, forestry, and ocean biodiversity.[1] The governance of these issue areas can be characterized as a regime complex due to fragmented institutional proliferation and the absence of an international treaty requiring compliance (Alter and Meunier 2009; Alter and Raustiala 2018; Raustiala and Victor 2004). While the issues across these regime complexes are global, their solutions necessitate change at the domestic level. Thus, regime complex effectiveness would need to be measured through impact at the domestic level that is substantive and can even aggregate upwards to result in measurable progress at a global level. The regime complex mechanisms are useful in conceptualizing how the regime complex impacts domestic politics, particularly in other issue areas where development aid agencies play a central function in distributing financing and diffusing norms in EMDEs.

For example, taking the case of the marine biodiversity regime complex, impact or effectiveness could be measured by how the regime complex affects change at the domestic level in EMDEs through the emergence of financing for the "blue economy" (utility modifier mechanism) and associated policy advising (social

[1] See works on these topics by Blanchard 2017; Fanning and Mahon 2020; Kim 2024b; Leon 2015; Langlet and Vadrot 2023; Orsini 2013.

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learning mechanism) and technical assistance (capacity-building mechanism).[2] Domestic impacts of the marine biodiversity regime complex could be measured through changes to domestic regulations and norms around fisheries management, tourism, coastal development, and the conservation of marine biodiversity. The participation of EMDEs in the marine biodiversity regime complex and ratification of the Biodiversity Beyond National Jurisdiction could impact a country's access to monetary benefits generated through the Marine Genetic Resources Financing Mechanism to support conservation of marine areas and sustainable practices in areas beyond national jurisdiction (Harvard Girius Lab 2024; UNGA 2023). This book's framework around the regime complex opportunity matrix is further relevant to other case studies, particularly domestic political will as a variable for mitigating regime complex effectiveness. Using the example of the marine biodiversity regime complex, diverging political interests and lack of political will could prevent or stall implementation of new regulations, thus hindering progress on marine conservation efforts. Overall, the theoretical framework's applicability is limited to issue areas where global governance impacts can be measured at the domestic level, particularly through development aid. The next section discusses other applications and future research opportunities.

Further Research

Further research on regime complex effectiveness can be applied to empirical cases across EMDEs and to different clean energy technologies. Further research can draw upon a larger sample of countries and technologies to better understand the scale of impacts across EMDEs. As outlined previously, the theoretical framework can be further applied to empirical case studies of regime complex effectiveness and its impact on domestic politics across issue areas.

There is a growing need for and interest in research on just and equitable transitions. Further research is needed to explore how the costs and benefits associated with an energy transition are shared, and the conditions under which social acceptability of renewable energy development is greatest. Relatedly, there is a need for research on best practice in assuaging local-level contestation of energy development projects and the factors that enable just transition outcomes, particularly when project development overlaps with ancestral lands.

[2] See Armstrong 2023; Morgan et al. 2022; and World Bank 2020b for conceptualization of the "blue economy," and GCF 2023; OECD 2022a; and World Bank 2024c for empirical examples of the emergence of the ocean economy and blue finance.

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Another area of further research involves a better quantification of capacity building and technical assistance. As outlined throughout the book, capacity building is generally funded at lower amounts than project finance. However, it is unclear whether this implies a lower prioritization by recipient countries or the regime complex to fund capacity building, or the more likely alternative that the amount of funding needed to support capacity building is lower. This stream of research is also relevant to the study of South–South and triangular cooperation. Technical assistance is a common form of South–South cooperation for climate and clean energy, yet it is hard to quantify, has lower relative costs, and often does not involve loans or grants attached when time and trainings are provided through technical knowledge transfer (OECD 2022b).

Furthermore, there is a need for research advancing theory on regime complex effectiveness building upon the framework outlined in this book. As the framework in this book applies to examining regime complex impact on domestic politics in EMDEs, more theoretical and empirical analysis is needed to understand how a regime complex may affect domestic politics in developed or industrialized economies. The mechanisms of utility modifier, social learning, and capacity building are less relevant to countries that are not aid recipients and thus do not have the same function. However, domestic political barriers and vested interests are present universally across countries, regardless of a country's economic status. To reach net zero and mitigate climate change, domestic political barriers must be overcome, and thus further research needs to better outline how complex and fragmented global governance may unlock barriers and support convergence of domestic political interests toward reaching net zero across all country contexts.

Policy Recommendations

The emergence of the clean energy regime complex and its variable impacts on renewable energy development in EMDEs have several policy implications. One of the most important policy recommendations is the crucial need for the clean energy regime complex to lead in ensuring a just and equitable transition. Secondly, policy advising, social learning, and technical capacity building are critical areas to facilitate energy transitions. Thirdly, improvement is needed in interagency coordination and communication between the headquarter level and the field to address barriers to renewable energy development and to bring local knowledge back to headquarters to have bidirectional institutional learning. Lastly, geothermal policy recommendations include de-risking geothermal exploration drilling, providing reliable compensation and incentives for geothermal development, streamlining permitting, interconnection, and transmission build-out, creating best practice for

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just and equitable outcomes with local communities, and catalyzing global deployment of advanced geothermal technologies.

Equity and Justice in the Energy Transition

From a technocratic perspective, Indigenous community and civil society contestation is often considered as a barrier to be overcome and marginalized; this approach is unjust, inequitable, unethical, and a violation of the Indigenous and Tribal Peoples Convention (ILO 1989) and the UN Declaration on the Rights of Indigenous People (UN 2007). Just transition norms have only recently been emerging on the incorporation of ethical considerations for managing contestation of large-scale renewable energy projects (Chelminski 2024; Kramarz et al. 2021; Neville 2021; Riofrancos 2017, 2020). This critical gap in global governance represents an important opportunity for international organizations to take the lead on promoting rules, norms, and practices for the clean energy industry to operate sustainably on the ground, particularly where projects may overlap with ancestral land. While the focus of this book is on large-scale geothermal technology, many actors along the clean energy supply chain are implicated, from transmission and generation providers to "green" mineral extraction companies mining lithium, cobalt, and other rare earth minerals needed to build renewable energy technologies.

The various interests at stake in favor of or against energy development projects have legitimate reasons for their interests and motivations, not least of which include sovereign ancestral land rights. It is critical that renewable energy developers ensure that human rights are protected, procedural justice is provided through prior and informed consent, representative public consultation informs Indigenous communities of the implications, and environmental protections are ensured through adequate environmental impact assessments. To ensure a sustainable future, the energy transition must be just and equitable to also empower vulnerable communities and avoid perpetuating the same inequitable structures and exploitations historically linked to the fossil fuel and mining industries. The clean energy regime complex has not yet promoted best practice approaches to mediating contestation and conflicts between local communities or Indigenous groups and clean energy developers. There is an opportunity for the clean energy regime complex to develop and disseminate information and new norms on the just transition to update norms of corporate social responsibility and business and human rights. International organizations working at either the global level or on the ground in EMDEs have a role to play in providing new resources and training, promoting best practice, as well as educating marginalized groups and Indigenous communities of their rights.

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Social Learning and Knowledge Transfer

The clean energy regime complex addresses a variety of barriers to geothermal development in Indonesia and the Philippines with variable outcomes. The variation represented by persistent barriers and lock-in are often due to vested interests at the domestic level. The intervening variable of domestic political interests mediates the impacts of the clean energy regime complex. Without the convergence of domestic political interests, special interest groups, and various political constituents in favor of renewable energy development, the clean energy regime complex is unlikely to have any impact or overcome political gridlock. The policy implications are that the clean energy regime complex is more effective when engaging and incentivizing domestic political interests. The clean energy regime complex can support the creation of strong domestic or transnational coalitions to push forward enabling environments for renewable energy development and prioritize funding for policy advising to encourage social learning and norm diffusion. Policy advising is critical to social learning, but it takes time to build trust and shift perspectives on critical challenges.

Capacity building is necessary to create sustainable change in recipient countries once development funding runs out and projects are finalized. While funding for technical capacity building related to geothermal development was provided to both Indonesia and the Philippines, the analysis of the flows of development assistance to geothermal development in both countries revealed that the clean energy regime complex has issued more funding to address financial, regulatory, and knowledge barriers, with less funding to support capacity building. Furthermore, the funding allocated to technical capacity development lacked targeted projects that will make a measurable impact. The international training and workshops promoting renewable energy policy, emissions reduction, and climate change policy implementation were not well targeted according to government officials in Indonesia. The technical staff members of government ministries without decision-making power were often the participants at workshops and trainings, which often meant that the knowledge was not transferred across government bureaucracies since the staff did not have the authority to institutionalize or widely disseminate acquired knowledge. A better system for knowledge transfer could be introduced so that the trainings have a broader institutional impact. Engaging governments with incentives to implement policy and share knowledge learned from trainings with the wider government ministry could help alleviate this problem.

Multilevel and Interagency Coordination

In both Indonesia and the Philippines, interviews with representatives of donor agencies revealed little formal interagency coordination beyond ad hoc joint

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projects. While there was some informal coordination in terms of sharing data lists of projects funded in recent years, each institution pursued its own objectives and budget and there were little comprehensive overviews of the remaining barriers to development. There was a lack of coordination on which organization would target which barrier. This is unsurprising considering the overall lack of coordination among development agencies in other issue areas (Lawson 2013). This finding also falls in line with expectations, based on previous studies, of duplications and redundancy among overlapping institutions and ad hoc processes. There is a need for increased interagency coordination, which could be donor-driven and monitored through program evaluations.

Furthermore, improved avenues of feedback between the field level and headquarter level might enhance the overall effectiveness of the clean energy regime complex. As much of the funding provided by the clean energy regime complex is top-down, the feedback mechanisms for addressing barriers to renewable energy development are restricted to those outlined by the organization's headquarter level. Considering the lack of interagency feedback, gaps in removing particular barriers to development are likely to persist. With augmented coordination and feedback mechanisms, the effectiveness of the clean energy regime complex is likely to improve. However, these recommendations are counterintuitive to the regime complex in as far as there is a limited institutional hierarchy inherent within its structure. In order to achieve these policy recommendations, hierarchy would need to be established to provide a central agency with the power to coordinate and collect information among organizations. As climate finance needs are immense, and in the absence of a centralized climate finance organization, the future of financial architecture for climate mitigation and adaption needs much better coordination to overcome redundancies, gaps, and asymmetries in access to ensure that that emissions reduction goals are being met and that finance allocated is in fact effective on the ground. Further complicating this institutional landscape is the increasing finance available from Global South donors, whether for clean energy projects or continued fossil fuel generation.

Geothermal Policy Recommendations

The empirical chapters on geothermal development in Indonesia and the Philippines revealed historical and contemporary challenges to development. This section will outline some of the contemporary challenges and policy recommendations to ameliorate these barriers to unlock further geothermal potential, namely the need for advanced drilling technologies and strong tariff regimes for compensation. The policy recommendations are widely applicable to geothermal development around the world, whether in EMDEs like Indonesia and the Philippines or industrialized economies like the United States. The five policy recommendations are detailed next.

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1 De-risking Geothermal Exploration Drilling

In both Indonesia and the Philippines, high risks and costs associated with geothermal exploration drilling are a major barrier to development, particularly private investment. In both cases, international development aid was requested to support the creation of a financing mechanism to share risks and costs associated with the early-stage exploration drilling. However, across both cases, the historic reluctance of the government to share in the risk of exploration drilling was a major limitation to catalyzing private investment. Thus, the first policy recommendation is to create a risk sharing mechanism between the public and private sectors. This could take a variety of forms, as is practiced internationally: the government takes on some or all exploration drilling risk, with support from international public finance, to either conduct the exploration drilling (e.g. through SOEs) and either transfer the data or issue concessions to developers; the government jointly shares exploration drilling risk with the private developers; the government subsidizes geothermal drilling or provides more lenient terms of government loans to private developers for exploration drilling (AMALA 2024; NGAP 2021; World Bank 2019, 2020a). Following the critical stage of exploration drilling, the acquisition of data on available geothermal resources can lead to the creation of a public database, to support future geothermal development, planning, and risk management.

2 Reliable Expected Compensation and Incentives for Geothermal Development

Across the cases explored, geothermal development was most successful when offtake was guaranteed by SOEs in the case of the Philippines under early-stage development. While the context today is different, reliable compensation and incentives are still needed to ensure geothermal energy is cost competitive with coal, particularly with rising costs associated with advanced drilling technology. Reliable compensation can take the form of feed-in tariffs and competitive procurements for clean energy technologies with long-term contracts. An investment tax credit (ITC) or production tax credit (PTC) can further help reduce costs associated with geothermal development and attract private investment. Under an ITC, a percentage of the cost of a geothermal project placed into service during the tax year can receive a tax credit, while under a PTC, a qualifying geothermal project would receive a per kilowatt-hour tax credit for electricity generated.[3]

3 Streamlining Permitting, Interconnection, and Transmission

As outlined in the case studies, permitting of geothermal is a major hurdle that slows development, particularly in a decentralized government like Indonesia's that

[3] The US extended geothermal and eligible technology for the ITC and PTC under the Inflation Reduction Act (IRA) in 2022. See the EPA 2023 for summary of the IRA provisions for geothermal technologies eligibility for the ITC and PTC.

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requires developers to apply for numerous permits. The hurdle of permitting large renewable energy projects is not unique to EMDEs and is also a major barrier in industrialized countries. Streamlining permitting by removing regulatory hurdles to apply for necessary permits will ameliorate this barrier in many contexts. It is important that the streamlined permitting continues to align with environmental regulations that protect biodiversity and vulnerable species, such as outlined in the revised Philippines NIPAS regulations (E-NIPAS) (GoP 2018; Romero 2018). However, around the world there is a need for greater convergence and compromise between environmental protection and responsible technology development to mitigate climate change and ensure sustainable development.

Interconnection feasibility is predicated on available distribution and transmission, which requires grid build-out. Around the world, interconnection delays, costs, and constrained transmission are critical barriers to clean energy development. However, in archipelagos, the added constraint of interconnecting grids between islands is a major barrier. In Indonesia in particular, the technical and political constraints to developing deep sea cables to interconnect the grids between islands has been a major hurdle. While geothermal resources on Java, the urban center with the highest population and energy demand density, have been exploited, there are plentiful geothermal resources on other islands. However, projects attempting to build deep sea cables between islands have stalled. Interconnecting projects and connecting capacity and demand through the development of transmission and deep sea cables across islands is critical to unlocking further geothermal potential.

To ameliorate interconnection, transmission, and permitting constraints, government programs can facilitate prioritized siting and interconnection of renewables by removing some of the regulatory bottlenecks associated with permitting and prioritizing areas for transmission planning to support renewable energy build-out, and direct developers to preferred siting along these corridors.[4]

4 Best Practice on Just Transition Outcomes

To foster just and equitable outcomes, further inclusion of community concerns regarding geothermal siting, equitable benefit sharing, and remediation are crucial to enabling just transition outcomes to ensure social acceptability of projects so that projects continue to be deployed to mitigate climate change. The clean energy regime complex can play a role in creating resources around best practice and diffusing norms to raise the importance of the just outcomes within corporate social

[4] The CREZ program in the Philippines provides an example, albeit with its own challenges, for prioritized siting and transmission build-out to support renewable energy development. See USAID et al. 2020.

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responsibility frameworks. National-level regulations should be enforced locally in a way that respects tribal sovereignty and ensures adequate procedural justice processes are followed and government or nongovernmental mediation (by a neutral third party) is available to resolve conflicts and ensure just outcomes benefit not only developers but also local communities impacted by geothermal project development.

5 Catalyzing the Global Deployment of New Geothermal Technologies

As outlined in Chapter 1, a geothermal technological renaissance is occurring with advancements in drilling technology that could unlock geothermal resources around the world. Some of the more advanced technologies currently in use, such as binary turbines and enhanced geothermal systems, could help unlock remaining secondary resources and enable the production of geothermal energy at lower temperatures. However, these technologies are more expensive and require additional subsidies as outlined in the second policy recommendation. Further support is needed to foster R&D for deep geothermal drilling at high temperatures. This technology has the potential to revolutionize geothermal drilling and unlock the potential for geothermal development across the world. However, the technology is still in its infancy and requires further R&D until it is commercially viable. Technology diffusion of the latest geothermal technological advancements will be critical to foster continued growth in geothermal development in Indonesia and the Philippines, among other EMDEs.

Final Remarks

The landscape of clean energy governance is changing rapidly as new emerging economies become major financers of clean energy development and the climate finance architecture of the future evolves to meet new challenges associated with climate change mitigation and adaptation. In order to build a better governance system for clean energy to ensure a sustainable future, there is a need for reflection on the lessons learned in the past. This book takes stock of the evolution of the sphere of governance for clean energy and analyzes its effectiveness in promoting renewable energy development in EMDEs. There is a great deal of room for improvement in terms of coordinated development efforts, closer examination of the major barriers to renewable energy development from a bottom-up perspective, and more systematic approaches to addressing these barriers. One way to approach this is to facilitate a more interactive process and increased coordination among the organizations working in the international policymaking sphere and the organizations on the ground in EMDEs to improve targeted financing.

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Irrespective of institutional design and institutional coordination, the interaction between international organizations promoting clean energy governance and domestic political interests is critical to energy transitions. Without the recipient government's political will or convergence of domestic political interests to reduce barriers to or promote the advancement of renewable energy development, large strides in progress toward increasing installed capacity of renewable energy are unlikely. The clean energy regime complex can create and diffuse norms, ideas, practices, and policy and incentivize change through financial support. However, long-lasting change requires social learning in order to create a cognitive shift and normative change toward the prioritization of clean energy technologies that provide opportunities for net zero growth. Social learning is most likely when there is also political will to change and support convergence of domestic political interests. To enable better governance for clean energy, domestic political interests should be taken into account within the systemic approaches to clean energy development, which extends to civil society and Indigenous communities directly impacted by the energy transition.

Geothermal energy holds tremendous promise to help the world transition to net zero emissions, particularly with the technological advancements underway. However, the enabling environment is critical to scaling this technology by removing financing, regulatory, and technical capacity barriers. The clean energy regime complex has an important role to play in supporting EMDEs in their energy transition and addressing these barriers for geothermal technologies and other clean energy technologies.

Climate change and energy transitions cannot be solved with a panacea. The complexity of the structure of governance for energy transitions is commensurate with the complex nature of the problem to be addressed, while the diverse array of clean energy-focused institutions functioning at various levels of governance fosters different aspects of net zero growth that amount to meaningful and transformative change. The future requirements of climate finance to address barriers to development and nurture technology transfer and global clean energy investments are momentous. This book illustrates how the clean energy regime complex can address the barriers to clean energy development in EMDEs. Variable but positive impacts are evident in both Indonesia and the Philippines in terms of social learning, filling gaps in clean energy financing, particularly removing some of the risks. Moving forward, the clean energy regime complex will play a crucial role in fostering just energy transitions in EMDEs to shift away from fossil fuels to meet the urgent needs for emissions reduction and climate change mitigation.

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