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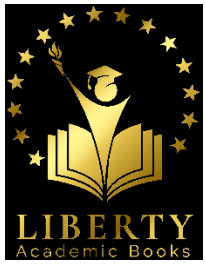

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CHAPTER 1

INTEGRATING ISLAMIC ETHICS INTO ENERGY GOVERNANCE: PATHWAYS TO JUSTICE IN THE MUSLIM WORLD

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INTRODUCTION

Energy poverty, which can be described as the inability to gain access to clean, reliable, and affordable energy services, is an urgent issue in most of the Muslim world. This is even though Muslim majority nations control large reserves of hydrocarbons in the world, there are stark differences in energy access, with millions of Muslims citizens having inadequate or unreliable access to electricity, reliance on dirty fuels to cook and heat their homes, and poor citizens having a disproportionate share of the energy costs. This is the paradox of energy-rich and energy-poor societies, which necessitate a critical look at the political and economic systems at work, which continue to propagate such anomalies. In this chapter, a political economy approach is employed to explore the systemic causes of energy poverty in Muslim-majority countries, while also utilizing Islamic normative traditions to envision alternative paradigms of energy governance. In the analysis, it acknowledges that energy poverty is not simply a technical issue that needs technological fixes, but it is an inherently political phenomenon determined by relations of power, institutional forms, and struggles over distribution. Consequently, the resolution of energy poverty requires a confrontation with the issues of justice, rights, and moral resource distributions, around which the Islamic doctrine revolves in its teaching on social and economic organisation.

The theoretical framework that will be used in this case combines the essential political economy analysis and the Islamic ethical and legal principles applied to the resources management, welfare, and governance. It is an interdisciplinary approach that shows that neoliberal economic policies, rentier states processes, and capture of energy resources by elites have frequently contradicted Islamic principles of equal distribution of resources and the common good. At the same time, it sheds light on avenues through which more just and sustainable energy governance systems can be informed by Islamic ideas, including *Maqāṣid al-Sharī -ah* (objectives of Islamic law), Adl (justice), and *Khilafah* (stewardship).

1. LITERATURE REVIEW: ENERGY POVERTY IN MUSLIM-MAJORITY COUNTRIES

The scholarly energy poverty literature has grown significantly in the last 20 years, and it has developed along the way, starting with technical evaluations of energy poverty largely based on electricity access to more multifaceted analyses of energy poverty as a multidimensional concept. Bouzarovski and Petrova (2015) define energy poverty as not solely covering the access to modern energy services but also their affordability, reliability and the quality of energy services. Following this conceptualisation, Bridge et al. (2018) stress the spatially and temporally disparate nature of energy poverty, stating that structural inequalities are reflected in the different access to energy in geographic areas and socioeconomic statuses.

And in Muslim majority settings, in particular, several studies report on the prevalence and severity of energy poverty. Khennas (2012) gives an in-depth evaluation of the situation with energy access in North Africa and the Middle East, explaining that in spite of the abundance of hydrocarbons in the region, large parts of the rural and peri-urban population have no stable electricity supply. Likewise, Atalay et al. (2017) focus on the analysis of household energy poverty in Turkey, Indonesia, and Pakistan and reveal how the liberalisation policies have contributed to the creation of inequalities in access to energy and its affordability. These observations are consistent with those made in the critiques of market-based energy reform in the developing world more generally (McDonald, 2009; Bhattacharyya, 2013), pointing to the shortcomings of privatisation and deregulation as ways of doing justice in energy.

Scholars have started to pay more attention to the political economy aspects of energy poverty. Bridge and Bradshaw (2017) construct a framework that allows the analysis of the ways energy systems are embedded in bigger structures of politics-economics, conditioned by path dependencies of the past and struggled over through many kinds of political agency. Overland et al. (2019) focus on the case of Muslim-majority states to discuss the impact of rentier state politics on energy subsidies and infrastructure investment planning, which tend to favor the interests of the elites rather than the common good. These discussions are familiar to the influential analysis made by Mitchell

(2011) of the role of what he calls carbon democracy, or how fossil fuel development has structured governance forms and distributional politics throughout the Middle East.

Nevertheless, there is a comparatively small body of literature that directly links Islamic ethical and legal frameworks to modern issues of energy poverty. Although researchers like Kamali (2016) or Chapra (2008) have discussed Islamic ideas on environmental sustainability and economic justice in general, the translation of these concepts onto the energy policy, in particular, has not received enough development. The chapter seeks to fill this gap by combining both Islamic texts on the care of resources, welfare, and accountability with the political economy approaches to energy poverty in Muslim-majority settings.

1.1 Conceptual Framework: Islamic Ethics and Political Economy

The analytical framework deployed in this chapter combines critical political economy and Islamic ethics and legal laws to discuss energy poverty among Muslim-majority nations. A political economy approach emphasizes the role of power relations and institutional frameworks as well as distributional conflict in determining energy systems and patterns of access. Based on this view, energy poverty is not only caused by technical or resource limits, but also by socio-political mechanisms that define the beneficiaries and guardians of energy resources (Baker et al., 2014). It especially looks at the effects of neoliberal economic adjustments, co-option of state apparatus by the elites, and global political influences that have reorganised the energy sectors in manners that tend to exclude the vulnerable groups.

Substituting this critical perspective is a normative theory based on Islamic ethical and legal schools of thought. An all-inclusive set of values and principles of Islam in regard to resource management, social well-being, and government suggested by Islam gives alternative views on the idea of energy justice. Important concepts:

- *Maqāṣid al-Sharī -ah* (objectives of Islamic law): This is a doctrine which states that the preservation of religion, life, intellect, lineage, and property are among the basic goals of Islamic law (Auda, 2008). Modern

researchers have extended this model and added environmental protection and socioeconomic development, which makes a comprehensive way of evaluating the energy policies.

- *ʿAdl* (justice): Islamic understandings of justice underscore a procedural understanding of fairness, as well as distributive fairness. When this is applied to energy, it would imply that policies must allow equitable access to energy services, but must also redress past inequalities (Kamali, 2002).
- *Maslahah* (public welfare): According to this tenet, policies serving communal interests, as opposed to individualistic ones, should take precedence; hence governance of energy resources should focus on optimal benefit to the masses as opposed to enrichment of the elites (Opwis, 2005).
- *Amanah* (trust) and *Khilāfah* (stewardship): These two concepts go together to put human beings as trustees over the creation of God, where they are charged with taking care of resources by making them last long into the future generations (Khalid, 2002).
- *Shūrā* (consultation): The principle dictates that all decisions must be participatory, and the concept implies that energy governance must consider the views of a variety of stakeholders, particularly those that are marginalised (El-Awa, 1980).

This chapter builds a unique framework to analyze energy poverty interventions, being critically aware of structural power relations and at the same time normatively committed to Islamic ethics. By doing so, this will highlight the areas of conflict between the existing energy governance systems and Islamic demands of justice and the common good, and at the same time, it will indicate the ways to achieve fairer and more sustainable energy futures per Islamic principles.

2. METHODOLOGY AND RESEARCH APPROACH

The research approach of the chapter is mixed-method, the study seeks to explore the political economy of energy poverty in Muslim majority countries and construct an Islamic ethical framework of energy governance. Methodology The methodology is a mixture of qualitative analysis of policy

documents, critical literature review, case study analysis, and interpretive analysis of the Islamic textual sources. This complex methodology allows an in-depth evaluation of all the structural influences that have determined energy poverty, as well as normative ideas that could guide potential alternative governance.

The research process involved four major methodological parts:

Systematic Literature Review*:* An extensive review of the literature on the topics of energy poverty, political economy of energy, and Islamic ethics concerning resource management was conducted. In compiling this review, multiple fields of research were used, such as development studies, energy policy, Islamic studies, and political economy. The search strategy of the literature review utilized academic databases with the combination of terms like energy poverty, energy justice, Islamic resource management, and energy governance in Muslim countries, and subsequently, forward and backward citation chaining was performed to locate more sources of interest.

Policy Document Analysis: Energy policies, national development plans, and poverty Reduction strategies of some Muslim majority nations were examined with the view of discerning the prevalent discourses, declared priorities, and possible gaps or mismatches between policy pronouncements and actions. In this analysis, special attention was given to the countries that cover different regional and economic backgrounds, such as Indonesia, Morocco, Nigeria, Pakistan, and Saudi Arabia.

Case Study Development: Three countries, including Indonesia, Pakistan, and Morocco were selected to represent different regions, economic structures, and endowments of energy resources, elaborate case studies were constructed. These cases will look into the interaction between the political-economic factors, patterns of energy access, and policy regimes, utilizing both secondary literature and primary policy documents.

Islamic Textual Analysis: The main Islamic texts, the Quranic verses and Prophetic traditions (Hadith) that bear on resource management, social welfare, and governance issues were studied through the classics and contemporary hermeneutics. Further, texts of Islamic jurisprudence (*fiqh*) and ethical philosophy (*akhlaq)* dealing with economic justice and public goods

were also examined with a view to extracting principles to be used in energy governance.

This methodological setting helps to conduct the analysis that is both empirically referenced to the real processes of energy poverty and normatively guided by the ethical traditions in Islam. It demonstrates the possibility to critically analyze the roles of power systems and institutional arrangements in the formation of energy access patterns, as well as to formulate how Islamic principles could be used to build more fair and sustainable energy governance systems.

3. THE LANDSCAPE OF ENERGY POVERTY IN MUSLIM-MAJORITY COUNTRIES

Energy poverty is unequally experienced in the Muslim world; this is an indication of varied political-economic circumstances and historical developments. It is undeniable that Muslim-majority nations show high levels of Energy disparity and insecurity, despite holding about 40 percent of proven oil reserves and 43 percent of natural gas reserves in the world (BP Statistical Review, 2021). This part gives an empirical description of this landscape, including main trends and differences in energy poverty among regions.

Access to energy in Muslim dominated nations like Nigeria, Sudan and Niger is a significant problem in sub-Saharan Africa. Nigeria, the largest oil producer in Africa, indicates that only half of the population has access to electricity, and the rural electrification rate is even low than 30% (IEA, 2020). The situation of unequal access is more or less the same in the region where the lack of reliable grid systems, low generation capacity, and ineffective governance systems limit access to energy. Women and rural households are disproportionately impacted by these challenges as they are frequent users of traditional biomass fuel in cooking and heating, and there are health and environmental implications.

In the Middle East and North Africa, the situation with energy access is more promising, as the majority of states have electrification levels over 90% (World Bank, 2019). These aggregate numbers, however, conceal large disparities in the quality and affordability of energy services. In Egypt, as an example, although the formal electrification rate is above 99 percent, sporadic

supply, voltage fluctuations and unscheduled outages are the rule in the periphery and in informal settlements (Patlitzianas, 2011). On the same note, energy subsidy reforms that have been undertaken in the region, and which have frequently formed a condition of international financial support, have added to the energy cost burden of low and middle-income households, introducing new aspects of energy poverty whilst physical access is enhanced.

The Muslim majority countries in South and Southeast Asia have a different energy problem. Pakistan faces endemic power struggles, and the power deficit of more than 5,000 MW during the peak demand times has led to load-shedding that is skewed towards the poorer parts of the country (Valasai et al., 2017). In Indonesia, although the general electrification has been increasing considerably, reaching 98.5 percent in 2019, there remains a considerable gap between Java and outer islands, with rates in provinces such as Papua and East Nusa Tenggara being under 75 percent (Ministry of Energy and Mineral Resources, 2020). In Bangladesh, tremendous growth has been achieved in rural electrification, but the affordability and reliability of energy still remain a challenge.

All these varied faces of energy poverty in the Muslim world is an indicator of intricate relationships among resource endowments, institutional frameworks of governance and political-economic systems. In the following sections, they are analyzed in terms of how neoliberal reforms, rentier state processes, and worldwide power relations have produced these tendencies, which tend to reproduce extant inequalities, even though Islamic ethical demands necessitate a much more equal distribution of resources.

4. STRUCTURAL DRIVERS OF ENERGY POVERTY IN MUSLIM-MAJORITY COUNTRIES

The cause of energy poverty in Muslim dominated nations is due to multidimensional structural forces that act at various levels. The section will discuss three interdependent forces, namely neoliberal reforms of the energy sector, rentier state processes, and geopolitical limitations, showing how these three forces have tended to work against equitable access to energy, even though the Islamic tradition has Islamic principles proposing distributive justice.

4.1 Neoliberal reforms of the Energy Sector

Following the pressures exerted by the international financial institutions since the 1990s, several reforms of the market-oriented energy sectors have been carried out in Muslim majority countries. Such reforms normally include the unbundling of vertically integrated utilities, the introduction of the private sector, the creation of independent regulatory bodies and the cutting of subsidies. Although these policies have been defended as helping to create efficiency and economic sustainability, they have, in most cases. Contributed to the creation of energy inequalities.

In Pakistan, privatisation in the electricity sector started in the 1994 Power Policy, which invited independent power producers (IPPs) to invest in the country but led to the signing of high-cost power purchase agreements, which kept the national treasury busy but did not help in addressing the supply shortages (Kessides, 2013). Likewise, the renewable energy development in Morocco, despite the technological marvel, has focused on grand schemes realised by transnational companies at the expense of the distributed, biased approaches that could be more beneficial to the energy-impoverished populations (Rignall, 2016).

4.2 Rentier State Dynamics

Rentier states characteristics are seen in many resource-rich nations with Muslim majorities, whose governments receive substantial income (in the form of natural resource extraction) instead of taxing the actual productive economic activity. This political-economic setup undermines accountability gaps between governments and citizens, which makes the ruling elites allocate energy resources politically strategically to ensure political patronage rather than maximising social good (Beblawi & Luciani, 2015).

In some countries, such as Algeria, energy subsidies have long played the role of a political legitimation tool, where the rulers would utilize oil and gas rents to keep the energy affordable and society quiet. Nonetheless, this policy has encouraged inefficient consumption structure, favoured disproportionately the richer households and generated large fiscal strains as the domestic consumption eats up the export ability (Aissaoui, 2013).

The same dynamics apply in Iraq, Saudi Arabia, and other states endowed with huge hydrocarbon reserves, where the governance of energy resources is based on promoting the stability of the regime rather than equity of access and sustainable management of resources.

4.3 Geopolitical Constraints

The energy productions in Muslim majority nations are integrated into the international power systems and policies that limit policy choices. Energy governance strategies are adopted because of colonial remnants and continued reliance on imported technology and finance, as well as international demands linked to liberalisation of markets, which tends to favour the interests of outsiders rather than the local demands (Mitchell, 2011).

Take the example of Indonesia: mining law changes introduced since the late 1990s have favoured foreign investment attraction at the expense of domestic energy security, in practice leading to more coal exports at the expense of millions of people without reliable access to electricity (Atteridge et al., 2018). Equally, geopolitical weaknesses and donor interests have influenced the renewable energy transition in Jordan, at times to the exclusion of focusing on energy poverty in marginalised groups (Verdeil, 2014).

These structural forces of energy poverty work along mutually reinforcing processes that challenge equitable access to energy. Neoliberal reforms undermine state capability to pursue redistributive energy policies; rentier logic reinforces governance structures that serve the interests of the elites; and geopolitical lock-ins restrict policy space. The combined forces result in energy systems that systemically favour the disadvantaged populations against the Islamic ethical imperatives of justice and common good. In the next section, the paper will look at the way these structural limitations play out in particular national scenarios using detailed case studies.

5. CASE STUDIES: ENERGY POVERTY AND POLITICAL ECONOMY IN SELECTED MUSLIM-MAJORITY COUNTRIES

5.1 Pakistan-Energy Crisis and Governance Failures

Pakistan is the embodiment of the compound mix of energy poverty, governance failures and structural constraints. However, the country has faced a long-standing energy crisis, typified by a generation deficit, more than 20 percent transmission losses, and the circular debt build-up in the power sector despite the significant hydropower potential and native coal reserves (Kessides, 2013). Such technical difficulties are symptoms of more fundamental political-economic malfunctions, such as the capture of regulatory agencies by elites, corrupt contract award processes, and skewed subsidy systems that favour industrial consumers at the expense of households.

Reforms in the power sector in the country carried out since the 1990s under the supervision of the World Bank and the IMF produced a scattered governance system with duplication of functions spread across ministries and agencies. The IPPs were contracted on generous terms that guaranteed them returns whether they performed or not, leading to the transfer of risks to the public sector but privatising gains (Ullah, 2015). This pattern is an example of how neoliberal reform prescriptions may lead to greater inequalities once established in settings of bad governance and strong patronage systems.

5.2 Indonesia - Geographic Inequality and Resource Nationalism

The energy situation in Indonesia illustrates the difficulty of achieving equity in access in a large archipelago with huge regional variation in income. The nation has made a commendable effort in increasing grid connection in the densely populated Java and Bali (more than 99% electrification rate), but the outer islands, such as Papua, are poorly served (Ministry of Energy and Mineral Resources, 2020). This geographic disparity is projected onto the ethnic and religious lines, developing the issue of distributive justice in a diverse Muslim-majority country.

Indonesia's energy governance is characterised by a contradiction between a tendency towards resource nationalism and the imperative of market

liberalisation. The Mining Law of 2009 re-nationalised the natural resources, but at the same time established a decentralised licensing system that allowed local elites to appropriate the resource rent (Warburton, 2017). In the meantime, the development of energy has tended to focus on export markets at the expense of the domestic demands although the constitution states that the natural resources must be developed in the best interest of the people (untuk sebesar-besar kemakmuran rakyat). This case shows that the constitutional and Islamic ideals of collective resource pool management can be hurt by opposing political-economic interests.

5.3 Morocco - The Transition to Renewable Energy and Inequality that Sticks

Morocco is one of the most ambitious examples of the energy transition in the Muslim world, as in 2009 the country presented the Moroccan Solar Plan with the goals of producing 52 percent of power through renewable energy by 2030 (Steinbacher, 2015). This initiative shows environmental considerations as well as a strategic policy of cutting the reliance on energy imports. Nevertheless, the model of renewable energy development in Morocco, which is based on mega-projects, such as the Noor Ouarzazate Concentrated Solar Power plant, is subject to distributive implications and community benefits inquiries.

Concerning critics, the energy transition in Morocco has so far focused on meeting the needs of the elites and international concerns, rather than directly tackling energy poverty. The public-private partnerships in the development of large-scale renewable projects have mainly benefited the urban and industrial consumers with minimal spill-over to the energy-poor rural populations (Rignall, 2016). In the meantime, the energy subsidy reforms that have taken place since 2013 have piled up costs on low-income households without placing compensatory measures. The case shows that even seemingly progressive energy transitions reinstate established inequalities unless they are developed with distributive justice considerations in focus.

The presented case studies show the influence of political-economic systems on the energy poverty situations in various Muslim-majority settings. Notwithstanding variations in resource endowments, governing structures, and

development patterns, all cases indicate the tension between market-based reforms, elite partisanism, and Islamic ideals of equal distribution of resources. The second section discusses the ways in which the Islamic ethical systems can guide different systems of energy governance, which would be more consistent with the demands of justice.

6. ISLAMIC PERSPECTIVES ON ENERGY JUSTICE AND RESOURCE MANAGEMENT

The Islamic tradition is a treasure-trove of morals and 100 percent applicable to the governance and resource management in the energy sector. These principles are based on the main textual sources of Islamic religion, the Quran and Sunnah, and on the rich Islamic jurisprudence and ethical philosophy that has been produced throughout the centuries. This part explores some of the central Islamic ideas that can guide fairer and greener solutions to the energy poverty problem.

6.1 *Maqāṣid al-Sharī* , the objectives of Islamic Law

The classical Islamic legal theory recognizes five ultimate aims of *Shariah* which are preservation of religion, life, intellect, lineage, and property. This framework has been extended by modern researchers such as Jasser Auda (2008) to incorporate protection of the environment, and sustainable development. In this view, energy poverty can be considered as a threat to various *maqāṣid,* in that it compromises health (by indoor air pollution caused by traditional fuels), economic opportunity (by constrained productive uses of energy), and environmental sustainability (by unsustainable resource extraction). This framework proposes an overall approach that policies on energy are not only considered on a technical or economic basis, but what they offer to the well-being of humankind in several aspects. It questions short-sighted cost-benefit analyses that do not factor in the enabling property of energy, through which people realize education, health care, and decent livelihoods, and without which human flourishing, in an Islamic view, is impossible. Justice and Excellence in Ethical Conduct. The Qur'an frequently reminds Justice (*ʿadl*) as one of the core ethical principles and orders the believers to "stand up to justice" (4:135) and states that Allah "enjoins justice

and excellence [i Hernando; HSAn]" (16:90). When rounded onto energy governance, these principles require equal distribution of energy benefits (access to services) and burdens (environmental impacts, costs), with a special consideration to the vulnerable populations.

Islamic understandings of justice move past formal equality towards substantive equity, where unequal individuals ought to be treated in different ways, as equality can be unjust. Such a view criticizes the market-based solutions that allocate energy resources on the basis of purchasing power without considering the initial disparities. In its place, it proposes that governance of energy must integrate some redistributive measures that would see everyone entitled to basic energy services irrespective of their socioeconomic standing.

6.2 Trust (*Amanah*) and Stewardship (*Khilafah*)

Quran places human beings as trustees (*khalifah*) on earth who shall manage the resources of the earth as per the guidance of God: He is the one who has appointed you vicegerents on the earth (6:165). Such a relationship of trustees suggests the rights to explore the resources in the interest of humanity and duties to uphold ecological integrity and intergenerational fairness. Energy resources, according to such a view, are the provisions of God, given in trust to all people, rather than the property of some specific people or corporations.

This ethic of stewardship criticises not only extractive forms of development, which emphasise the short-term exploitation of resources, but also privatisation schemes which remove common resources and place them under exclusive corporate ownership. Rather, it proposes energy governance systems that consider the needs of the present and future generation’s equal partners and energy resources as common goods owned on behalf of all by a trustee.

6.3 *Shur* (Consultation) and Participatory Governance

Consultation is one of the best principles of Islamic Governance because the Quran commends those whose affairs are a matter of counsel (42:38). The implication of this principle is that energy decisions must embrace the views of various stakeholders, in particular, those communities which are highly

vulnerable to the impacts of energy poverty and environmental degradation. Participatory practices are consistent with the requirements of procedural justice as well as the Islamic ethics of collective deliberation.

Introducing *shūrā* into energy governance would entail changing the top-down decision-making procedures prevailed by technical professionals and political elites presently. Rather it proposes deliberative processes through which communities could actively contribute to energy planning, determining needs, choosing technologies, and delivering models.

The above Islamic principles offer normative resources that can be used to reinvent the energy governance in Muslim-majority states. They are not mere ideal concepts but practical ethics that can be considered when designing policies or institutional frameworks, as well as when allocating resources. The second section discusses the possible operationalisation of these principles within specific policy frameworks that can resolve energy poverty and promote overall justice goals.

7. TENSIONS BETWEEN MARKET-BASED APPROACHES AND ISLAMIC WELFARE PRINCIPLES

The modern-day energy policy in Muslim dominated nations tends to incline market-based solutions which focus on efficiency, recovery of cost and involvement of the private sector. Such strategies encouraged by the international financial institutions and other development agencies often come into conflict with Islamic values that place priority on collective good and distributive justice and the notion of stewardship. In this part, major conflicts between neoliberal energy governance discourses and Islamic moralities are discussed.

Table 1: Market-Based Energy Approaches and Their Tensions with Islamic Principles

Market-Based Approach	Islamic Principle	Key Tension
Commodification of energy resources and services, with access determined primarily by ability to pay	*Maslahah* (public welfare) and *ʿAdl* (justice), which emphasise universal access to essential resources	Market distribution may exclude vulnerable populations from vital energy services, conflicting with Islamic imperatives for meeting the basic needs of all community members
Cost-reflective tariffs and subsidy removal to enhance financial sustainability and allocative efficiency	Islamic social welfare principles require special provision for vulnerable groups (*mustadafin*)	Removal of subsidies without adequate social protection can impose disproportionate burdens on low-income households, contradicting Islamic prioritisation of the disadvantaged
Private ownership and control of energy infrastructure, with profit maximisation as the primary objective	*Khilāfah* (stewardship) and *Amanah* (trust), which position natural resources as divine provisions entrusted to humanity collectively	Private appropriation of resource rents may concentrate benefits in a few hands rather than serving collective welfare as required by stewardship principles
Financialisation of energy assets, transforming infrastructure into investment vehicles for capital markets	Islamic finance principles prohibit excessive uncertainty (*gharar*) and exploitation (*zulm*)	Complex financial instruments may obscure accountability and transfer risk to vulnerable parties, potentially violating Islamic ethical standards for fair transactions
Technocratic decision-making is dominated by experts and elites, with limited public participation	*Shūrā* (consultation) principles require inclusive deliberation on matters affecting the community	Exclusionary governance processes contradict Islamic requirements for consultation and collective decision-making

Such tensions are played out in practical policy situations amongst the Muslim majority nations. An example is the 2009 Electricity Law of Indonesia, which gave precedence to market mechanisms and cost recovery principles and moved Indonesia towards regarding electricity as a commercial commodity rather than a public service. This strategy has enhanced financial viability and

created concerns on affordability by the low-income households, especially when the subsidies have been cut down (Mujiyanto & Tiess, 2013). This has been replicated in Pakistan, Egypt, and other Muslim majority states, which are undertaking power sector reforms advised by international financial institutions.

Another sphere where the market logics and Islamic principles clash is the privatisation of the energy assets. The transferral of previously publicly held energy infrastructure to privately held corporations, usually transnational ones, means that the decision-making process is no longer held in potentially accountable publicly held institutions but in profit-maximising corporations with few obligations to the public good. This commercialisation of the government corrupts *shūrā* and can hurt the *maslahah* (public welfare) in case the corporate agenda conflicts with the needs of the community.

These conflicts do not easily suggest the irreconcilability of Islamic values with every market tool. Instead, they imply that what is required are hybrid forms of governance that embrace the allocative efficiencies of markets but within ethical frames that give priority to notions of justice, participation, and the common good. The second section discusses how these alternative models of governance could be composed, referring to both the Islamic traditions of ethics and current research on sustainability transitions.

8. GOVERNANCE MODELS ALTERNATIVE ENERGY: THE ISLAMIC ETHICS AND MODERN POLICY INTEGRATION

The governance approaches that need to be established to fix the issue of energy poverty in Muslim-majority states must be based on Islamic morality and should consider the modern objectives of sustainability. In this section, we describe some real-life models where Islamic values have been integrated with policy innovations, and how ethical considerations can be used to influence institutional arrangements and the distribution of resources.

8.1 A Social Protection and Fair Pricing

Islamic objectives of justice (*adl*) and mercy (*raḥmah)* demand fair access to energy. Islamic-informed models promote the idea of progressive

tariffs, or lifeline tariffs on essential usage and higher tariffs on luxury consumption, instead of equal subsidies, which benefit the wealthy. An example of this approach is electricity tariff reform in Morocco. Moreover, the institutions of zakat and waqf may fund the specific assistance to energy-poor households, which would cover the affordability issue without affecting the fiscal sustainability.

8.2 Community-Based Energy Systems

Decentralised, community-owned renewable energy projects are chiming with the ideas of *taʿāwun* (cooperation) and *takāful* (mutual support). These involve solar cooperatives and mini-grids, which are operated by local actors as in Jordan. Religious endowments (*awqaf*) and mosques can become centres of such initiatives, drawing on their social trust and their institutional ability to serve the common good.

8.3 Islamic Finance for Energy Access

Islamic financial instruments offer ethical alternatives to interest-based financing. *Sukuk* (Islamic bonds) fund renewable infrastructure; *muḍārabah* (profit-sharing) fosters investor-community partnerships; and *qarḍ ḥasan* (benevolent loans) support low-income households. Malaysia's Green *Sukuk* initiative, which has mobilized over $1.3 billion since 2017, exemplifies the potential of faith-based finance in advancing clean energy.

8.4 Participatory Energy Planning

The concept of shurA (consultation) embraces participatory energy planning, where the marginalized groups are also listened to. Some of the methods are community surveys, deliberative forums, and citizen monitoring. Such participatory models are reflected in the post-revolution reforms in Tunisia, where development is made in accordance to the priorities and procedural justice.

These are some other forms of governance, which are based on Islamic ethics that provide flexible models depending on the diverse contexts. Including moral values in technical and economic deliberations, they introduce energy systems that are efficient, sustainable, and at the same time socially acceptable

and ethically sound, following the Islamic ethos of stewardship and shared responsibility.

Although holistic Islamic-informed energy governance systems are still a dream in most settings, there have been some encouraging activities throughout the Muslim world that at least partly reflect the above principles. The section will look at the specific examples of energy programmes and projects that can be implemented within the Islamic ethical frameworks, proving the viability of the discussed concepts.

9. THE COMMUNITY-BASED RENEWABLE ENERGY PROGRAMME OF INDONESIA

The Community-Based Renewable Energy Programme (PLTMH) in Indonesia involves the use of decentralised micro-hydro schemes, which are controlled by local cooperatives, especially in remote areas in Sulawesi and Sumatra.

The systems are reminiscent of Islamic ideals of communal resource pool management and mutual benefit (*maslahah*), and the community members take part in the construction and in the management. Studies conducted by Retnanestri and Outhred (2013) provide accounts on how such initiatives develop social capital in addition to providing electricity, with governance systems including the traditional village councils, which adopt the consensus-based decision-making (*musyawarah*) system, which is consistent with the principles of *shūrā*.

Also, a number of Indonesian pesantren (Islamic boarding schools) have introduced renewable energy systems, which are used not only as a part of education, but also benefit nearby communities. Such is the case of the Pesantren Budaya Ilmu in East Java, which integrates the installation of solar power with religious studies about environmental management, making a direct connection between the technological implementation and the Islamic doctrine about managing resources (Mangunjaya & McKay, 2012).

9.1 Jordan EDAMA Initiative

The EDAMA Association of Jordan is one such multi-stakeholder platform that is interested in the sustainable development of energy and water,

which includes private sector organisations, civil society organisations, and religious institutions. Community solar in underprivileged areas has been initiated by EDAMA, where the financing schemes have been organized in the form of Islamic-compliant instruments that create equal benefits among the parties. Such projects echo the principles of *taawun* (cooperation) because they allow people to invest in common infrastructure.

Of special interest is the co-operation of EDAMA with religious endowments (*awqaf*) to install solar systems on Mosque land, the income to be used to maintain the buildings as well as community welfare programmes. Such a strategy revives the historical purpose of religious endowments to supply civic infrastructure and further clean energy goals (Komendantova et al., 2018).

9.2 Green *Sukuk* Programme of Malaysia

Malaysia has also blazed a trail in the Islamic financial instruments in renewable energy by having the Green *Sukuk* programme, which facilitates *Shariah-compliant* financing of clean energy projects. *Sukuk,* unlike traditional bonds, are shares of ownership of real assets, which comply with Islamic restrictions on interest (*riba*), but which can be used to raise finance towards sustainability efforts. Malaysia's programme has attracted more than $1.3 billion in solar and other renewable projects since its introduction in 2017 (Securities Commission Malaysia, 2019).

These financial innovations reveal the possibility of using Islamic ethical principles to guide both the governance arrangements as well as investment mechanisms towards energy transitions. Simultaneously, by basing finance on owning specific assets and sharing profits, as opposed to paying interest, Green *Sukuk* can both combine capital mobilisation with religious needs and promote climate and energy access goals.

Though these case examples have not fully and thoroughly applied Islamic ethical framework discussed above, they have shown that it is possible to apply religious principles in practical energy governance arrangements. They imply that instead of creating barriers to sustainable energy transitions, Islamic ethical traditions can give unique resources to imagine and realize alternative governance forms. policymakers and practitioners can create ways of thinking about energy poverty alleviation that speak to religious values, but in ways that

meet the challenges of the moment by building on these examples and more clearly explaining how they relate to Islamic ethics.

Significantly, such efforts have been successful not when trying to apply religious models to technocratic procedures, but when finding overlap between Islamic concepts and sustainable energy goals. This integrative approach will likely open up an avenue of hope to Muslim majority nations keen on exploring how to deal with energy poverty without necessarily dishonouring religious traditions and at the same time putting themselves in the global sustainability agendas.

10. POLICY RECOMMENDATIONS FOR ENERGY POVERTY ALLEVIATION IN MUSLIM-MAJORITY COUNTRIES

Based on the theoretical framework and case illustrations provided in the foregoing sections, this section will lay out specific policy suggestions that can be used to deal with energy poverty in Muslim-majority nations. The following recommendations are sought to bring the governance of energy resources into line with Islamic ethics, without impractically ignoring the prevailing institutional framework and limitations of resources.

10.1 Restate Energy Policy Objectives

Justice and welfare principles, which are based on Islamic ethics, ought to be expressly manifested in the policy structures designed by the energy ministries and regulatory bodies and no longer remain confined to very limited technical and economic aims. These will involve setting out ambitious goals on fair access to energy, covering aspects of affordability, reliability, and quality, with a special focus on the marginalised groups. Instead of treating energy as a commodity and an input to economic activities, policy frameworks must realise that energy is vitally important to human dignity and flourishing (*karamah*).

By way of example, the national energy plans might use variants of the indicators of the "Sustainable Development Goal 7" with the introduction of distributional equity measures and guarantees of minimum services to vulnerable groups. Such broadened aims would be more consistent with Islamic ideals of ʿ*adl* (justice) and *maslahah* (public welfare) than would the traditional

methods that emphasize mostly aggregate access data or efficiency in the market.

10.2 Re-Architecture Institutional Arrangements

Energy sectors should have governance systems that promote participatory systems, which allow effective stakeholder contributions in decision-making processes, which are indicative of *shūrā*. This could comprise the formation of energy user groups that represent various socioeconomic groups, development of formal consultation obligations in infrastructure planning as well as the provision of transparency measures that allow the people to oversee energy investments and operations.

Also, the available religious institutions might be brought on board as energy governance partners. Community energy planning could involve mosque committees, *waqf* (endowment) administrators and religious councils, directing their moral authority and organisational capacity at energy poverty. This would help to utilize the trusted institutions to increase the legitimacy as well as effectiveness of the energy interventions.

10.3 Put in Place Fair Financing Mechanisms

Financing of energy sources should be a mixture of market solutions and redistributive financing mechanisms where everyone has access despite their payment capabilities. This may involve setting up special energy access funds financed by *zakat* (mandatory alms) or other Islamic social finance mechanisms, cross-subsidy mechanisms to transfer the costs of richer to more vulnerable consumers, and Islamic-compliant microfinance products to house hold energy systems.

Governments ought also to consider novel uses of *waqf* (endowment) institutions in relation to energy infrastructure and might consider creating "energy *waqf*" institutions that offer available financing for community energy systems. Such mechanisms would meet both the Islamic traditions of communal management of resources and the capital limitation, which generally slows down the energy access initiatives.

10.4 Give Precedence to Decentralised and Community-Based Approaches

Energy planning must not only supplement centralised infrastructure with decentralised systems that are controlled at the community level, especially in remote or underserved areas. Such a strategy would not only be cost-effective and familiar with practical concerns, but also in accord with Islamic ideals of subsidiarity, decision-making, and local stewardship. Models of community energy, such as solar cooperatives, village hydro, and neighbourhood biogas plants, allow more people to be involved in energy governance, and potentially provide services more attentive to local interests.

Regulation must be changed to allow and encourage such community-scale solutions, eliminating obstacles to small-scale generation and creating technical standards suitable to decentralised systems. As well, capacity-building programmes must enhance the capacity of the local institution to efficiently manage the energy resources by integrating technical skills training and governance reinforcement.

These suggestions represent but a beginning of how energy governance in Muslim majorities can be reconceptualised, not as a fixed plan but a set of guidelines that can be made local and national depending on circumstances. They do so by combining Islamic ethical perspectives with current policy strategies, thus providing channels to more just, more sustainable, and more religiously compatible energy systems in the same stroke.

Notably, these suggestions appreciate that energy poverty will not be solved by mere technical fixes and money alone but also reforms in governance to change the ways of decision-making and benefit sharing. With an emphasis on these substantive and procedural/distributive aspects, as well as a technical one, policymakers will be in a better position to devise more comprehensive means of energy poverty reduction that goes beyond treating its symptoms instead of its causes.

11. CHALLENGES AND LIMITATIONS IN IMPLEMENTING ISLAMIC-INFORMED ENERGY GOVERNANCE

11.1 Objections to Realizing Islamic-Informed Energy Governance

Although Islamic ethics provide some insightful frameworks on how to reconsider energy governance, there are a number of obstacles to their application in contemporary settings.

11.2 Institutional Incompatibility

The majority of the energy organizations in Muslim countries are based on the Western technocratic models, which prioritize technical and economic efficiencies instead of focusing on morality. According to El-Gamal (2006), the incorporation of religious ethics within the current systems is usually resisted by the established bureaucracies.

11.3 Geopolitical and Economic Limits

Dependence on foreign aid, investment, and uniform global energy reforms reduces the flexibility of the policy of most Muslim states. Mitchell (2011) proposes that global energy regimes limit national freedom of action, particularly to countries that occupy a subordinate geopolitical stance.

Religion Interpretation and Power

Multiple versions of interpretations of Islamic teachings and various sources of religious authority make it hard to incorporate religious principles into policy. Hallaq (2013) postulates that there can be an inherent incompatibility between the modern form of the state and the traditional ideals of Islamic governance.

Political Economy of Reform

Reforms usually pose a danger to strong interest groups that enjoy the current system. In order to be successful in institutional change, as Khan (2010) stresses, one must find a way of navigating strategically around these interests as well as build coalitions in order to overcome resistance.

Pragmatic Solutions

Nevertheless, reforms on local and small steps may help prove the utility of Islamic ethics in practice. Pilot project, mixed forms of governance and consultation with stakeholders, including religious scholars, technical experts, and civil society, could contribute to legitimizing the endeavors and contextualizing the principles to practical settings.

Most importantly, advocates need to emphasize the compatibility of Islamic-informed policies with realistic energy industry issues, including financial viability and reliability of services, thereby acquiring more institutional and popular acceptance.

CONCLUSION

The chapter examined the issue of energy poverty in Muslim-majority states by combining the aspects of political economy and Islamic ethics. It exposed the nature of the clash between Islamic ideas of justice and the common good and the present-day energy governance, manipulated by neoliberal reforms, dominated by elites, and driven by the forces.

Three important insights are brought out by the analysis:

The phenomenon of energy poverty is politically constructed, and it is more a question of unequal governance and policy decisions rather than the lack of resources.

Islamic ethical traditions, including *Maqāṣid al-Sharī'ah, justice, Maslahah* (public welfare), trust, and *Khilāfah* (stewardship), provide practical, normative resources with which to redesign equitable, sustainable energy systems.

Islamic values can certainly steer sustainable energy shifts as demonstrated by real-world programs, such as the community renewables program in Indonesia and Green *Sukuk* in Malaysia.

The framework is a contribution to the theory and practice by incorporating the faith-based ethics into the policy discussion in showing a culturally grounded way towards energy justice. In the future, context-based research and cross-faith analyses will help us make ethical energy governance more textured and extend its applicability.

In response to the Muslim societies facing the problem of energy inequality and climatic issues, Islamic ethics offer an attractive resource in order to achieve just and sustainable energy futures.

REFERENCES

Aissaoui, A. (2013). *Oil and the transformation of Algeria: A political economy of resource nationalism*. Routledge.

Al-Quran

Atalay, T., Kaya, S., & Büyükyörük, G. (2017). Household energy poverty in Turkey, Indonesia and Pakistan: A comparative analysis of the effects of liberalization policies. *Energy Policy, 106*, 15-24.

Atteridge, A., Stigson, P., & Wangel, J. (2018). The political economy of coal in Indonesia: Actors, interests, and drivers. Stockholm Environment Institute.

Auda, J. (2008). *Maqasid al-Shariah as philosophy of Islamic law: A systems approach*. International Institute of Islamic Thought.

Baker, K., Eadson, W., & Smith, A. (2014). Interrogating the politics of energy poverty. *Local Environment, 19*(5), 461-468.

Beblawi, H., & Luciani, G. (Eds.). (2015). *The rentier state*. Routledge.

Bhattacharyya, S. C. (2013). *Energy access, poverty, and development: The nexus between energy and human well-being*. Springer.

Bouzarovski, S., & Petrova, S. (2015). A global perspective on domestic energy poverty: Introduction to the special issue. *Energy Research & Social Science, 10*, 1-7.

BP Statistical Review. (2021). *BP statistical review of world energy*. BP.

Bridge, G., & Bradshaw, M. J. (2017). Geographies of energy transition: Space, time and the politics of socio-technical change. *Energy Policy, 107*, 308-312.

Bridge, G., Bouzarovski, S., Bradshaw, M., & Eyre, N. (2018). Geographies of energy transition: Space, time and the politics of socio-technical change. *Energy Policy, 107*, 308-312. (Note: This seems to be a duplicate entry with the 2017 Bridge & Bradshaw. If it refers to a different publication, please provide more distinguishing information.)

Chapra, M. U. (2008). *The Islamic vision of development in the light of Maqasid al-Shari'ah*. International Institute of Islamic Thought.

El-Awa, M. S. (1980). *On the political system of the Islamic state*. American Trust Publications.

IEA. (2020). *World energy outlook*. International Energy Agency.

Kamali, M. H. (2002). *Principles of Islamic jurisprudence*. Islamic Texts Society.

Kamali, M. H. (2016). *Environmental protection and Islam: Principles, perspectives, and trends*. Islamic Book Trust.

Kessides, I. N. (2013). *An economic analysis of the Pakistan power sector*. World Bank Publications.

Khalid, F. (2002). *Islam and ecology*. Continuum.

Khennas, S. (2012). *Energy poverty in the MENA region: Status, challenges, and policy options*. Konrad-Adenauer-Stiftung.

McDonald, D. A. (Ed.). (2009). *Electric capitalism: Recolonising Africa on the power grid*. HSRC Press.

Ministry of Energy and Mineral Resources. (2020). *Energy statistics of Indonesia*.

Mitchell, T. (2011). *Carbon democracy: Political power in the age of oil*. Verso.

Opwis, F. (2005). *Maslaha and the purpose of the law: Islamic discourse on legality and legitimacy*. Brill.

Overland, I., Bazilian, M. D., Ilimov, E., & Ma, H. (2019). The political economy of solar energy in rentier states: A case study of Oman. *Energy Policy, 126*, 162-171.

Patlitzianas, K. D. (2011). Energy poverty in MENA countries: The case of Egypt. In *Energy, economy, and environment: Toward a comprehensive approach* (pp. 235-248). Springer.

Rignall, K. (2016). The mirage of solar energy development in Morocco: The challenge of rural electrification. *Journal of North African Studies, 21*(4), 589-605.Steinbacher, R. (2015). Morocco's solar energy plan: Challenges and opportunities for a low-carbon economy. *Journal of Energy and Development, 40*(1/2), 163-181.

Ullah, R. (2015). Independent Power Producers (IPPs) and Pakistan's energy crisis: A critical analysis. *Pakistan Horizon, 68*(3), 73-89.

Valasai, G. D., Uqaili, M. A., & Khan, N. I. (2017). Energy crisis and load shedding in Pakistan: Challenges and policy options. *International Journal of Energy Economics and Policy, 7*(2), 29-37.

Verdeil, E. (2014). The geopolitics of renewable energy in Jordan: Prospects and limits. *Middle East Policy, 21*(2), 126-140.

Warburton, E. (2017). Resource nationalism in Indonesia: Between state and market. *Journal of Current Southeast Asian Affairs, 36*(2), 53-76.

CHAPTER 2

FINANCING UNIVERSITY RESEARCH AND DEVELOPMENT IN ENERGY: ESTABLISHING PUBLIC-PRIVATE PARTNERSHIPS

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INTRODUCTION

The state provides funding to the university for the benefit of laboratories for scientific research and technological and educational development.

In order to meet the requirements and objectives of scientific research and technological development, funding is provided to the University's research laboratory.

Through this funding, the University implements the allocated bud g et by launching calls for tenders for the acquisition of scientific and technological equipment and materials for the research laboratory.

Our objective is to define a simplified framework to implement the concept of a university enterprise through the establishment of public-private partnerships that allow it to benefit from the innovations and expertise of operators.

1. PUBLIC-PRIVATE PARTNERSHIP: DEFINITION

In terms of defining public-private partnerships, there is no official international definition of PPP, other than identifying the region- and sector-specific requirements that led to the determination of these PPP. (Bernhard Bukovc, 2016)

Two main parties are involved in a public-private partnership, each with a common objective and developing infrastructure, but they do not always have the same financial or economic rationale. (IFDD, fiche N°7)

For operations involving the design, financing, construction, and management of facilities or public services, public-private partnership contracts are established, combining public and private sector expertise and offering an opportunity to involve the private sector in its investments. (M'Gbra, Langlois, BIAOU, 2008)

Depending on the allocation of responsibilities, PPP differ in terms of activities: *design of infrastructure and services, construction of infrastructure, project financing, operation, maintenance of facilities, ownership of assets, pricing method*. (M'Gbra, Langlois, BIAOU, 2008)

2. PRINCIPLE OF PUBLIC- PRIVATE PARTNERSHIP

Four main conditions must be met for public administrations (state, local authorities, and public institutions) to use the PPP mechanism when outsourcing a service, namely:

- The public-private partnership project requires a significant investment,
- The project involves a degree of technical intervention,
- The taxpayer will be the source of financing for the project, rather than the user or beneficiairy
- The private sector can ensure better quality of service to the user than the public sector,

The objective of a PPP is to organize organizational, financial, and technical resources, which identifies cooperation between the two public and private actors. (M'Gbra, Langlois, BIAOU, 2008)

The establishment of a public-private partnership must be based on the following principles:

- ***Transparency***: The implementation of PPP requires clarity, transparency, and the freedom to exchange information (IFDD, fiche N°7)
- ***Competition***: In order to provide a quality, efficient service at a competitive price by a private partner, a call for tenders is required by the public entity to select a qualified investor with a satisfactory quality/ price ratio. (IFDD, fiche N°7)
- ***Financial viability***: The public authority acknwledes the obligation to subsidize an investment to reduce service costs.

Financial viability is one of the necessary economic and financial conditions and depends in particular on the ability of users to pay the actual cost of the service. (IFDD, fiche N°7)

- ***Flexibility*****:** Flexibility is essential because a PPP project undergoes changes over the course of its development, with external conditions that may chane. (IFDD, fiche N°7)

3. IMPLEMENTATION STRATEGY AND EXPECTED RESULTS

The implementation and initiation of the public-private partnership process requires a preliminary analysis to ensure the best approach and profitability of PPP through the implementation of new systems, services, and infrastructure. (Bernhard Bukovc, 2016)

The implementation of PPP requires key arguments, namely

- Affordability,
- Private sector expertise and skills,
- Lifecycle cost risks,
- Risk allocation,
- Budget forecasting and certainty,
- Profitability,
- Focus on results,
- Private capital and investment.

Phase préalable au projet	– Politique en matière de PPP – Cadre et environnement – Cadre juridique et réglementaire – Etude technique – Evaluation financière et économique – Communication avec les parties prenantes et participation de ces dernières – Engagement du gouvernement et capacité institutionnelle
Sélection du projet	– Sélection des projets conformes à la politique du gouvernement en matière de PPP (dans ce cas, pour le secteur postal et plus spécifiquement dans le domaine des services électroniques)
Phase d'évaluation du projet	– Evaluation de la faisabilité du projet et de sa viabilité économique – Viabilité et attrait financiers – Evaluation de la rentabilité – Etablissement des tarifs et subventions – Répartition des risques
Préparation du projet	– Plan de projet et feuille de route – Elaboration du contrat de PPP – Autres mesures préparatoires
Phase de passation du marché	– Marché, notification publique et présélection – Définition de la procédure de passation de marché – Procédure d'appel d'offres et attribution du marché
Mise en œuvre du projet	– Projet de PPP et gestion du contrat – Suivi

Figure 1 : Cycle Of A Public-Private Partnership
Source : Bukovc, B. (2016), UPU, p. 33.

3.1 Conducting A Preliminary Study and Diagnosis

Implementing a PPP requires sincere and thorough preparation through a precise and accurate feasibility study. When establishing a PPP contract, it is

very important to involve several qualified stakeholders and experts, working together as a team from project design through to contract signing, who can resolve technical, economic and legal issues.

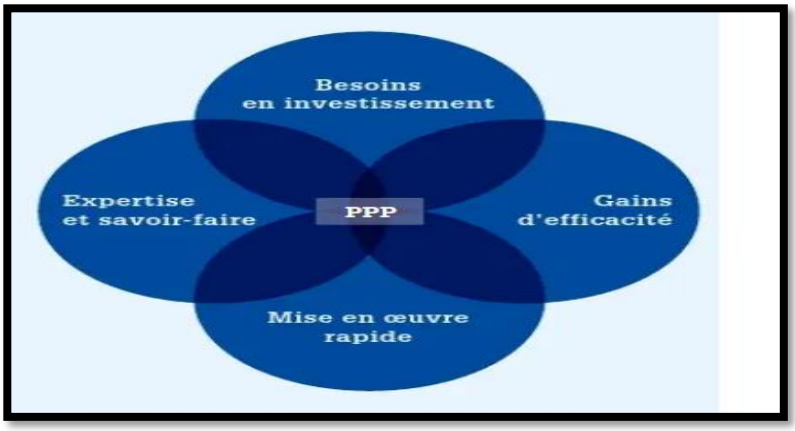

Figure 2 : Decisive Factors for The Identification of Public-Private Partnership Projects

Source : Bukovc, B. (2016), UPU, p. 34.

3.2 Establishing A Legal Framework

One of the major requirements for the success of a PPP is the implementation of a clear legal and institutional framework upstream by identifying the stakeholders and anyone with a role and mission for PPP to guarantee legal and judicial security for investors.

Risk Sharing

Both public and private parties in the PPP must accept risks through rigorous negociation to avoid any threat to the partnership. Risks can be categorized at different levels, such as implementation risks, construction risks, construction risks, environmental risks, financial risks, and force majeure.

Establishment Of a Monitoring Body

In order to measure the private partner's performance, the PPP contract must include mandatory control factors and mechanisms, sanctions and often financial rewards, as well as the private partner's monitoring approach, such as

the preparation of regular and periodic reports to the public authority as clauses in the PPP contract.

Role of Institutions

"The ministry of Energy retains its sovereign prerogatives, in other words, it is responsible for defining major objectives, visions, and strategies, as well as implementing regulations. The sectoral reform to liberalize the sector has created rural electrification funds for mobilizing funding and subsidizing programs, and a regulatory body. The rural electrification agency and the rural electrification fund are often established as public institutions"

Technical Environment

Analyzing the technical environment is one of the key requirements of a PPP assessment to identify technical barriers in the sector and how to overcome them. (Bernhard Bukovc, 2016)

Financial and Economic Analysis

In order to determine the objectives of the PPP project, analyzing the financial and economic situation is an essential condition for the viability of the project and the implementation of the infrastructure in terms of defining the structure and designing the project.

Collecting historical and actual operational data for the structure of employment, production levels, technical assets, and other financial parameters and indicators. (Bernhard Bukovc, 2016)

Stakeholder Engagement and Communication

Generally, since PPP involves public or universal services, sensitive assets, or systems, it is essential to understand and respond to the stakeholders intentions and goals. (Bernhard Bukovc, 2016)

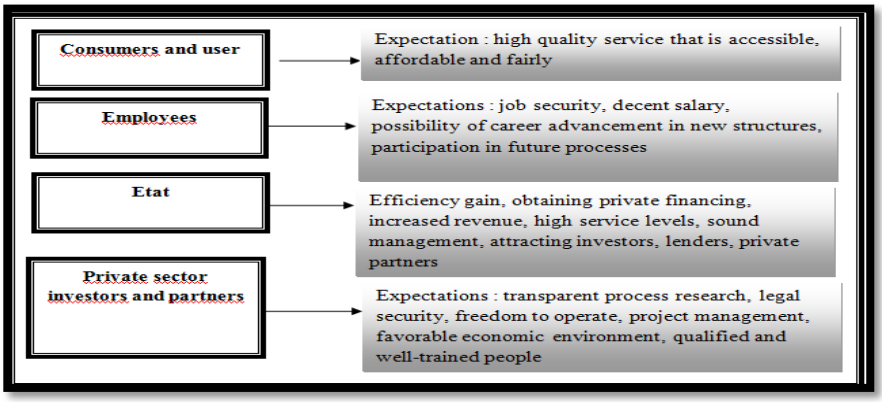

Figure 3 : Stakeholder Expectations
Source: Adapted from Bukovc, B. (2016), UPU.

4. DIFFERENT TYPES OF PUBLIC-PRIVATE PARTNERSHIPS

Depending on the regulatory and institutional framework and the country, public-private partnerships are diversified. PPP can also be classified based on the extent of public and private sector participation, the level of risk, responsibility, and benefit sharing. (M'Gbra, Langlois, BIAOU, 2008)

PPP can be classified into three broad categories as defined by the Quebec treasury board in the table below:

Table 1 : Public- Private Partnership Categories
Source: M'Gbra, N., Langlois, P., & Biaou, E. (2008), IEPF, p. 57.

The first category	The public sector purchases services from the private sector. The private sector makes investments, and the public sector pays for the services delivered. This is the most common form of PPP projects
The second category	The private sector designs, builds, finances and manages the project. It recoups its investment through services paid for by users. The role of the public sector is to plan the project
The third category	Includes projects partially or fully subsidized by the state when the investment cannot be reimbursed solely by the rate paid to the beneficiaries

In terms of PPP for service provision, several provision, several possibilities can be considered conceptually, the following table defines these possibilities.

Table 2: Possibility Of Public-Private Partnership in Terms of Service
Source: M'Gbra, N., Langlois, P., & Biaou, E. (2008), IEPF, p. 55.

LEASING	A lease is a contract that combines public ownership of the facilities with private operation of the service. The public entity retains ownership of the facilities, and the private sector manages and renovates them to provide a service and generate profit. Users directly pay the private company, which assumes all financial risks. The lease varies between 10 and 15 years. This PPP arrangement contains clauses on the nature of the services to be offered, guarantees, pricing terms and price adjustments. This type of contract is used when the public company is unable to generate resources for the planned investments
BUILD OWN OPERATE (BOO)	Is a type of concession, the private sector pays a rent, it is authorized to build, maintain equipment. Its profit is from the operation of the service provided over a period varying between 10 an 15 years
BUILD OWN OPERATE TRANSFER	Is similar to BOO, the infrastructure and the operating company become the property of the grantor within a specified period.
CONCESSION	A concession is a long-term contract by which a public entity entrusts the private sector with the management of a public service or the construction and operation of a public facility, at its own risk. The concessionaire is responsible for securing financing to cover the investments. The lifespan varies between 25 and 50 years and is freely determined by the delegating authority based on the services provided by the concessionaire.
MANAGEMENT CONTRACT	A management contract allows for a partial or total transfer of management to a private operator for a short period of time without changing the legal status of the company's management. This operation has several names: delegated management, performance contract, management, management delegation, or management contract. This management method is implemented due to internal weaknesses within the company. The remuneration for a management contract is linked to performance.
FRANCHISE	A franchise is a form of concession in which the public authority grants a territorial monopoly to a private firm that makes the investments, ensures operations, and recovers its costs and profits. The company pays a license fee for permission to proceed, and the grantor controls the rates charged.

FREE COMPETITION	Allows the administration to grant licenses to qualified companies to provide services. Costs are billed directly by the firms to the customers.
SUBCONTRACTING	The most traditional and widespread form of PPP. The public sector uses the private sector to provide functions and carry out specific, one-off projects. Payment procedures are predefined. This type of contract includes performance objectives, price adjustment mechanisms, and technical specifications for the service, including quality and quantity

5. PUBLIC-PRIVATE PARTNERSHIP UNIT

Two fundamental arguments are put forward to justify the use of PPP efficiency or optimization of expenditure and budgetary constraints. A dedicated PPP unit has been established by many OCDE member countries (OCDE, 2010) A dedicated PPP unit is "any organization established, in whole or in part with government assistance, with the aim of ensuring that the necessary capacity exists, pooled at the government level, to create, support, and evaluate numerous public-private partnership contracts"

Dedicated PPP units can provide technical assistance, skills development, policy information, and financing for PPP projects. PPP units can be part of a centralized or decentralized agency or department, or a specialized organism belonging to several specialized departments. (OCDE, 2010)

Table 3: Advantages of a Unit Dedicated to PPP

Source: OCDE (2010), p. 31.

A dedicated PPP unit helps separate the formulation of PPP policies from their implementation
A dedicated PPP unit can act as a centre of competence in the development, negociation and execution of PPP projects- centralizing knowledge can generate cost savings for the state
A dedicated PPP unit can help regulate the creation of PPP by public organism public to ensure that they meet all the criteria of financial feasibility, value for money and risk transfer
A dedicated PPP unit can ensure that appropriate budgetary considerations have been taken into account at the PPP project level and that contingent liabilities have been assessed
A dedicated PPP unit can make a country's PPP program more dynamic, by soliciting projects, attracting potential partners/ investors, creating a climate of trust and goodwill with private partners

6. FINANCING MECHANISMS

New forms of financing that allow for the reduction of disadvantages in the face magnitude of real or hypothetical risks, these include.

Table 4: Form and Financing Mechanism

LEASING	A lease is a contract that combines public ownership of the facilities with private operation of the service. The public entity retains ownership of the facilities, and the private sector manages and renovates them to provide a service and generate profit. Users directly pay the private company, which assumes all financial risks. The lease varies between 10 and 15 years. This PPP arrangement contains clauses on the nature of the services to be offered, guarantees, pricing terms and price adjustments. This type of contract is used when the public company is unable to generate resources for the planned investments
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Source: M'Gbra, N., Langlois, P., & Biaou, E. (2008), IEPF, p. 44.

7. SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIP

The sucess of a PPP relies primarily on the sharing of responsabilities between the partners. The private sector is generally responsible for service delivery and project implementation; while monitoring and quality assessment is the responsibility of the public sector. **(**M'Gbra.N, Langlois. P, BIAOU. E, 2008)

To ensure the success of a PPP, there are several fundamental factors, namely:

Consideration Of a Clear and Transparent Policy and Strategy

The policy is quite broad, ranging from defining a strategy to establishing a contract, taking into account the risks shared between both parties, as well as the selection of the private partner in a clear and transparent manner. (IFDD, fiche N°7)

The adoption of the decision and the willingness of the public entity are considered an essential and favorable condition for the establishment of a PPP aimed at the participation of private entities to respond to a public service provision in general or for a specific purpose. (Bernhard Bukovc, 2016).

Then, the government determines the sector through the identification of a series of approaches and studies for the diagnosis of the sector and the

environment before launching the project (highlighting regulatory gaps, technical issues, financial and economic apects of the project). (Bernhard Bukovc, 2016).

Establishing Enhanced Technical and Legal Assistance

A public-private partnership allows for the mobilization of private funds for the development of equipment and infrastructure, particularly energy infrastructure. This requires technical and legal support to set up a PPP and establish a negotiation procedure with the private partner (IFDD, fiche N°7)

The success of a PPP depends largely on the establishment of an applicable legal and regulatory framework (Bernhard Bukovc, 2016) according to the environmental, economic, and social conditions of the sector and the state's capacity to implement a PPP strategy and project.

Stakeholder Contact

Actively, there is a need for good communication with stakeholders by taking into account their opinions and points of view for a good implementation of PPP projects to avoid generating risk and discouraging companies and private investors. (Bernhard Bukovc, 2016)

CONCLUSION

We are witnessing the private sector playing a vital role in the development of universities (Hurteau, Landry, Schepper; 2009) through the establishment of public-private partnerships. "Public-private partnerships refer to forms of cooperation between public authorities and the business world purpose is to ensure the financing, construction, renovation, management, or maintenance of infrastructure or the provision of a service"

PPP cover several forms in the energy sector. Each PPP responds to the needs and the existing situation at the time of the partnership's creation.

The energy sector comprises two essential and distinct industries: the oil and gas sector and the electricity sector (World Bank Group, 2025). Our work focuses mainly on presenting a simple framework for thinking about the establishment of a public-private partnership between the university research laboratory in the field of energy research and development and the company

following the problems and themes to be answered by society, the economy and the existing environment.

REFERENCES

BUKOVC. B, (2016), Guide des partenariats public-privé pour les services électroniques dans le secteur postal Janvier 2016, Union postale universelle.

CLARK. D, (2005), Les partenariats public-privé au Royaume-Uni, Université de Plymouth (UK)

DELMON. J, (2014), Programmes de Partenariats Public-Privé Créer un Cadre pour les Investissements du Secteur Privé dans les Infrastructures.

Hurteau.P, Landry.J, Schepper.B, (2009**),** Rapport de recherche Les PPP dans les universités québécoises, Institut de recherche et d'informations socio-économiques

IFDD, le financement de la maîtrise de l'énergie | fiche Nº 7, L'accès à l'électricité à travers les partenariats public-privé.

M'Gbra.N, Langlois. P, BIAOU. E, (2008), L'apport du partenariat public-privé dans le financement des projets en efficacité énergétique, CANADA, Edition Institut de l'énergie et de l'environnement de la Francophonie (IEPF).

OCDE, (2008) Les partenariats public-privé partager les risques et optimiser les ressources, France.

OCDE, (2010), les unités consacrées aux partenariats public-privé une étude des structures institutionnelles et de gouvernance.

World Bank Group, (2025)**,** Les PPP dans le domaine de l'énergie et de l'électricité, https://ppp.worldbank.org/public-private-partnership/energy-and-power/les-ppp-dans-le-domaine-de-l-energie-et-de-l-electricite consulted on 17/06/2025.

CHAPTER 3

A RIGHT BASED APPROACH TO ENERGY JUSTICE IN INDIA : CONSTITUTIONAL MANDATES AND GOVERNANCE CHALLENGES

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INTRODUCTION

India's tryst with sustainable development faces a unique paradox. On one hand, India has its ambitious decarbonization targets under the Paris Climate Deal. On the other hand, it has its huge share of population base and socio-economic inequalities to tackle. Ensuring availability, accessibility and affordability of electricity to its 100 Million Plus people while facing the aggressive global push for rapid decarbonization and energy transition thus becomes a difficult task. In this background, the idea of 'Energy Justice' comes to the rescue and is an idea worth analysing.

The question is, "What do we mean by the term 'Energy Justice'?" Sidortsov and Mc Cauley (2023) analysed the concept in great detail and conducted an extensive literature review on the idea of 'Energy Justice'. While restraining themselves from providing an explicit definition, the authors describe 'energy justice' as an emerging framework that seeks to ensure fair and equitable access to energy while balancing it with environmental sustainability and social equity. Based on the extensive literature review, they suggest that from a conceptual perspective, the idea of 'energy justice' consists of three core tenets/aspects among others-

- Distributive Justice- calling for fair distribution of energy resources
- Procedural Justice- calling for an inclusive decision making
- Recognition Justice- requiring an acknowledgment of diverse needs and priorities

Akrofi et. Al. (2022) in their article demonstrated that globally, the idea of energy justice is crucial in light of discussions on climate change, decarbonization, transition from non-renewables to renewable resource-based energy generation etc. Further, the idea of energy justice is deeply integrated to the United Nations Sustainable Development Goal 7 (UN-SDG7) that talks about affordable, reliable, sustainable and modern energy for all.

Halder et. al. (2023) analysed as to what makes India unique in the context of energy justice. They concluded that it is its rapid economic growth, large and diverse population base, deeply pervasive inequalities combined with low historical carbon emission. In India, the idea of energy justice thus takes a unique constitutional and socio-economic dimension. This has led to conflict

between India's ambitious environmental imperatives and the need to attain rapid economic growth and social equity.

It is thus high time to analyse the need to integrate the idea of justice within India's energy policies. The transition from law to justice must go beyond technological fixes and include inclusive and participative governance, equitable sharing of benefits and a recognition of historically marginalized groups.

In this chapter, the authors have tried to explore manifestations of the idea of energy justice in India. In order to limit the scope of research, the authors have focused on the policies and legal framework governing 'electricity' in India. The chapter seeks to look into key ideas, constitutional rights and the link between electricity laws and social justice. The role of the law makers and judiciary in ensuring energy justice will be discussed in great detail. By looking at various case studies, the successes and failures of governmental policies shall be analysed. The chapter shall end by suggesting a way forward to make India's energy (electricity) future more fair, inclusive and in line with the Constitution of India.

1. CONCEPTUAL AND THEORITICAL FRAMEWORK OF ENERGY JUSTICE

As discussed by Sidortsov and Mc Cauley (2023), Energy Justice can be defined as a multi-disciplinary framework that seeks to understand and rectify the inequities relating to production, distribution and consumption of energy. Combining the aspects of normative theories and real-world struggles, the idea seeks to examine not just the access to energy but fairness and inclusiveness of energy transitions as well. The concept is not an isolated one. It overlaps with the ideas of social justice, human rights and environmental governance. As far as the core ingredients of energy justice are concerned, the idea consists of three fundamental tenets- Distributional Justice, Procedural Justice and Recognition Justice.

Thomas et al. (2020) discussed the idea of distributive justice in energy sector. According to the said article, he idea of Distributive Justice focuses on an analysis of distribution of costs and benefits of energy systems across different social groups. In practice, it refers to an analysis of fair distribution of

energy utilities like electricity, cooking fuel, renewable technologies etc. across diverse segments of society. It seeks a conscious, policy driven redressal of spatial, temporal, socio-economic and infrastructural disparities and inequities associated with distribution of energy resources.

Procedural Justice on the other hand, focuses on ensuring fair, inclusive and participative decision making. Sidortsov & Katz (2023) have discussed the idea of procedural justice in energy sector in great detail. The idea calls for transparency, accountability, responsibility and bottoms-up approach to governance of energy resources. It seeks to do away with concentration of decision-making power in the hands of few and move towards deeper community engagement in policy framing and project implementation in energy sector.

Apart from the distributive and procedural aspects of energy justice, scholars like Jenkins (2016) have elaborated upon the idea of recognition justice. Recognition Justice is about acknowledging that different communities have different identities, needs and histories. It reminds us that equality does not mean sameness. It propagates the understanding that fair energy systems are the ones that honor cultural differences, include marginal voices in planning and decision making and treat energy as a public good and not a luxury.

Valkenburg G. (2023) has, however, rightly pointed out that energy justice is more than just a theory. The idea is backed by various international agreements and human rights instruments. The Right to Energy is an integral part of the broader right to development, health and life. Human Rights instruments like ICESCR implicitly recognize energy as essential for health, dignity and survival. The idea of right to energy finds an explicit mention under the United Nations' Sustainable Development Goal 7 which calls for affordable, reliable, sustainable and modern energy for all.

The ideas discussed above showcases how electricity is not just about power and wires. It is about people, fairness and future. It sits at the core of sustainable development, democratic governance, and human dignity.

2. CONSTITUTIONAL MANDATES AND LEGAL FOUNDATIONS OF ENERGY (ELECTRICITY) JUSTICE IN INDIA

As discussed in the last section, Right to Energy and Energy Justice are not just a matter of infrastructure or economic policy. They are fundamentally integral to the ideas of justice, human dignity and sustainable development. As far as the idea of energy justice from legal perspective in India is concerned, it is an emerging concept that guides the lawmakers and administrators on the access of and distribution of energy utilities/ services.

In the Indian context, right to energy and energy justice finds an implicit recognition under various provisions of the Constitution of India. Several provisions of the Constitution have been interpreted and applied by Indian courts to support the claims of equitable, reliable and sustainable energy access. The Constitutional basis of energy justice in India is primarily focused on Fundamental Rights (Part III), Directive Principles of State Policy (Part IV), federal structure and judicial interventions.

2.1 Right to Energy and Energy Justice under the Constitution of India

2.1.1 Judicial interpretation of Right to Energy as being an integral part of Fundamental Rights under Articles 14 and 21

To start with, Article 21 of the Constitution of India 1950 guarantees Right to Life and Personal Liberty has been broadly interpreted by the honorable Supreme Court and various State High Courts in India to include access to basic amenities like clean air, water and electricity. Courts in India have time and again acknowledged that fair access to electricity is integral to health, education and livelihood and is thus a crucial component of Right to dignified Life and Personal Liberty under Article 21 of the Constitution of India (Chameli Singh v. State of UP (1996), Sudharshan Kumar Sharma v. State (NCT of Delhi) (2022), Framing B. Marak vs State of Meghalaya and Ors. K.N Raveendranadanan Ors vs Kerala State Electricity Board and Ors. (2014), Om Prakash vs Balkar Singh and others (2022). The honorable Supreme Court of India in a recent case has again held that “it is now a well settled proposition of law that electricity is a basic amenity of which a person cannot be deprived

without a cogent and lawful reason" (Dilip (Dead) through Lrs. V. Satish & Others, 2022).

Further, the honorable Supreme Court of India has also linked the idea of energy justice to the Articles 14 of the Constitution of India. Article 14 talks about Right to equality and equal protection of law. The Apex court of the country has held that access to electricity and other energy resources cannot be denied on arbitrary grounds of geography, socio-economic status or community (M K Ranjitsinh and Others v Union of India and Others 2024). The honorable Apex Court further re-emphsised that unequal access to electricity can undermine equal opportunities for education, employment and participation in society.

2.1.2. Part IV and Part IVA- Complementing Fundamental Rights

The Part IV, that is Directive Principles of State Policy builds on the enforceable fundamental rights under Article 14 and 21 of the Constitution of India. Articles 39(b) dealing with equitable distribution of resources, Article 47 imposing a duty upon the state to make endeavor to improve public health and living standards and Article 48 A dealing with environmental protection provide for a normative guidance towards a just and sustainable energy policy. These Instrument of Instructions to the state are further complemented by Fundamental Duties under Article 51A, which call upon citizens to protect and conserve energy.

2.1.3 Article 246 and Entry 53: Center–State Conflicts in Energy Governance

Electricity as a subject fall under the Concurrent List, that is, List III of the VII Schedule of the Indian Constitution. However, Article 246, read with Entry 53 of the Union List (List I of Schedule VII), grants central government the power to regulate and develop oilfields and mineral resources, including petroleum and petroleum products. This has led to overlapping jurisdiction between the Centre and States. This division has often resulted in policy and regulatory conflicts relating to energy projects and governance in the country.

2.2 Statutes and Policies Governing Supply, Generation and Distribution of Electricity in India

The electricity sector of the country is primarily governed by the Electricity Act, 2003. The aim of the said legislation is to promote competition, protect consumer rights, rationalise tariffs and to ensure universal access to electricity (Statement of Objects and Reasons, Electricity Act, 2003). Its objective was to "consolidate laws relating to generation, transmission, distribution, trading and use of electricity". In order to attain the objective of operational efficiency and liberalisation of electricity sector, the Act provides for demerger of Electricity Boards into separate legal entities for generation, transmission and distribution (*Section 131, The Electricity Act 2003)*.

In terms of power generation, Section 7 of the Act provides for an elimination of licensing requirements, that is delicensing. This thereby allows both public as well as private players to set up generation facilities, subject to the exception hydro projects (over 25MW capacity) and nuclear installations (Section 8, The Electricity Act 2003). In furtherance of India's environment protection related commitments, Section 86(1)(e) of the said Act talks about Renewable Purchase Obligation of Distribution licensees. Additionally, Captive Generation is another salient feature that has been provided for under Section 9 of the Electricity Act, 2003. It empowers industries and cooperatives to generate electricity for their own use. This not only encourages decentralisation but also promotes self-reliance in underserved areas.

When it comes to the transmission and distribution domains, Sections 12-14 of the Electricity Act, 2003 provides for a Structured Licensing Regime. These licensing requirements are however subject to various exemptions relating to NGOs, cooperatives, panchayats, etc. to facilitate last mile connectivity and inclusive rural development (Section 13, The Electricity Act 2003). With the objective of promoting competitive markets, the Act introduces the concept of "Open Access". Sections 38 and 39 of the Act imposes a requirement upon the Central Transmission Utilities (CTUs) and State Transmission Utilities (STUs) respectively to allow a "non-discriminatory Open Access to its transmission system for use by" any licensee, generating company or consumer. This mandate is however subject to various rules, regulations and charges provided for by the Central and State Governments.

In order to ensure protection of consumer interests, regulatory commissions at both central and state levels have been constituted respectively under Sections 76 and 82 of the Electricity Act 2003. The key functions of the Central Electricity Regulatory Commission (CERC) and the State Electricity Regulatory Commission (SERC) among others include determination of tariffs, enforcement of Renewable Purchase Obligations and redressal of grievances (Sections 79 & 86, The Electricity Act 2003). In order to avoid conflict of interest and upholding Principles of Natural Justice in dispute resolution, an Appellate Tribunal for Electricity (APTEL) has been established under Section 110 of the Act. In order to ensure fair use and protection of public resources in electricity sector, the Act provides for various offences and consequent penalties (Part XIV (Sections 135-152), The Electricity Act 2003).

The Electricity Act is supported by vast policy framework. Empowered under the Act, the Indian Government has in consultation with the Central Electricity Authority and State Governments come up with National Electricity Policy 2005 (NEP) and the Tariff Policy 2016. Additionally, the Draft National Energy Policy 2017 released by the NITI Aayog serves as a guiding document for integrating the concept of energy justice into the country's electricity law framework. Various governmental schemes like Saubhagya Scheme (Electricity to All) and the Deen Dayal Upadhyaya Gram Jyoti Yojana work aim at last mile connectivity, inclusivity and equity in electricity distribution. Combined together, all these policy and schemes work towards the vision of universal, affordable and sustainable energy future.

Apart from the overarching framework under the Electricity Act, 2003, the sector is also governed by the Electricity Conservation Act 2001. The statute is aimed at demand side management of energy and reduction of energy poverty. It seeks to attain the said objective by establishment of Bureau of Energy Efficiency and framing of energy efficiency standards for electronic appliances and building codes. Combined together, all these statutes, policies and schemes work towards the vision of universal, affordable and sustainable energy future. However, on the execution front spatial, socio-economic and governance related challenges hinder the attainment of the said objective.

3. NEED FOR REDRESSING STRUCTURAL INJUSTICES AND REWIRING OF INDIA'S POWER SECTOR

India's ambitious targets relating to inclusivity and sustainability are gravely hindered by the deep rooted social and economic inequities prevalent in its social fabric. While the lawmakers and enforcers celebrate near universal electrification in the country, the structural exclusions based on caste, class, gender and geography are often ignored or hidden in a strategic manner. The demand for energy justice in the country is thus not merely a theoretical one. They are rather aimed at confronting these inequities not as an incidental or technocratic issue but as a systemic failure rooted in historical and institutional unfairness.

3.1 The Unequal Grid: Caste, Class, Gender and Geography

The country has made substantial progress in ensuring availability, accessibility and affordability of electricity. As of 2025, the total installed power capacity stands at over 472 GW with renewable sources of energy now accounting for more than 36% of this energy mix (Government of India, June 2025). The data on paper shows a commendable shift from chronic power deficit towards a surplus capacity. Yet beneath these grand claims lie a tangled web of structural inequities and systemic failures (Priya, P. et. al, 2024).

As has been pointed out by Vibhor Saxena (Saxena V., 2017) in his article that the Scheduled Castes and Scheduled Tribes confront a consistent low access to electricity and clean cooking fuel. He elaborates that the exclusion is not merely because of economic reasons but also because of spatial isolation resulting from the caste-based discrimination. Their remote hamlets away from densely populated areas give enforcement authorities an excuse to hide their inefficiencies. He in the same article has also highlighted the disproportionate burden of collecting fuel woods and exposure to consequent pollution that falls upon the women of these areas.

This denial of right to energy results in a perpetual vicious cycle of poverty. The denial of energy has far-reaching consequences on different facets of life like food, shelter, education, health and livelihood among others. This widens the development divide and perpetuates structural inequalities. Underlying this socio-economic exclusion are the issues that are related to lack

of financial resources, infrastructural bottlenecks, regulatory overlaps and policy gaps.

3.2 Governance Challenges and Policy Gaps: Structural hindrances to Energy Equity

At the heart of denial of right to energy is a fragmented and often dysfunctional governance architecture. The legal framework governing energy sector in India is a patchwork of central and state government authorities that have their own set of distinct priorities and policies. The Governance Challenges and Policy Gaps relating to Energy sector in India are discussed hereinafter

- **Fragmented Policy Frameworks and Regulatory Overlaps:** The fragmentation is clearly visible in the renewable energy sector, where the ambitious national targets face hinderance due to procedural bottlenecks and overlapping mandates of the central and government agencies. The dual structure under the Electricity Act 2003 led by CERC and SERCs has led to regulatory inconsistencies in matters of tariff setting, ensuring universal access and implementation of Renewable Purchase Obligations (RPOs). This has driven away investors and developers on many occasions hindering long term private investment and execution of projects in a timely manner. The issues like lack of a standardized Power Purchase Agreement (PPAs), frequent unilateral changes in tender designs, corruption and red tapism has further led to cancellation of multiple projects, deviation from energy targets, increase in project costs ultimately resulting into energy insecurity.
- **India's Federal Structure and the tug of war between the Central and State agencies:** The subject of 'Energy' falls under the Concurrent List of the Constitution of India. On one hand, the task of energy generation and transmission is primarily driven by giants under Central Government like NTPC and Power Grid Corporation of India Ltd. On the other hand, state run Distribution Companies (DISCOMs) are primarily responsible for last mile connectivity. These DISCOMs with their huge share of accumulated losses and disproportionate debts constitute the weakest link of the power sector (Raizada A., 2024).The

primary reasons behind the ill financial health of these DISCOMs are populist free electricity schemes, excessive political interference, delayed revision of tariffs, poor billing practices, corruption and subsidy leakages (Pargal S. & Banerjee S., 2014). The inefficiencies associated with DISCOMs have a cascading effect on the value chain resulting into payment delays for generators, thereby driving away future investments in energy capacity development.

What challenges the federal structure and coherence in energy sector more is the fact that the corrective measures suggested by the central government and its push for performance linked financial assistance is often met with resistance from the state governments (Ministry of Power-Press Release, 2025). On the other hand, scholars and researchers have criticized the ever-increasing central control over finances and project approvals in the energy sector raising allegations of favoritism among states for political gains (Marquardt, J. et. al., 2024).

- **People left in Dark: Displacement without Consent:** The sad reality is that the disproportionate burden of energy capacity expansion and energy transition has fallen upon the marginalized and vulnerable sections of the country. Large scale power projects have frequently resulted into displacement of communities without adequate compensation or meaningful consultation. Despite the legal requirement of a "Free, Prior and Informed Consent" under the Forest Rights Act, the implementation remains patchy and community participation remains tokenistic.
- **Transparency, Accountability and Bureaucratic Hurdles:** The power sector in India is deeply riddled with lack of transparency and accountability in financial and operational matters. This perpetuates inefficiency and public distrust in the sector. The sector is shrouded by inefficiencies in matters of financial accounting, grievance redressal, inclusionary and exclusionary errors, Transmission and Distribution Losses among others. Bureaucratic inertia further complicates matters. Perpetual issues like corruption, red tapism, lack of transparency and accountability restricts capacity development, increases costs and deters private investment.

- **Private Sector Dominance and Affordability Concerns:** India's installed power generation capacity is primarily dominated by the private sector (PTI, 2024). However, the affordability remains a cause of concern due to high per unit costs, hidden charges, cross-subsidy distortions and leakages (Ravetto L., 2024). The private sector focus on profits often leads to denial of energy access to remote areas and marginalized communities. This not only leads to a denial of Right to Energy but also perpetuates Energy Injustice.

In view of the discussion above, India's energy future cannot rest on megawatts alone. It must be guided by the principles of fairness, inclusion and accountability. Governance reforms must move beyond paper and infrastructure to address the deep and pervasive structural issues perpetuating inequities and inefficiencies.

4. POLICY PATHWAYS AND THE WAY FORWARD: POWERING JUSTICE, NOT JUST GRIDS

In view of the discussion above, one thing is clear that India today stands at crossroads of energy transition. The challenge before the policymakers and stakeholders is not just about producing more power but about generating it more fairly, efficiently and sustainably. This requires something more than mere economic and technological fixing. It is the legal and institutional restructuring that is also a need of the hour.

4.1 Need for a Statutory Recognition to Right to Energy

A foundational reform in pursuance of the said objective can be as express statutory recognition to the Right to Energy as part of Right to development. As has been discussed through the rulings of constitutional courts in this chapter, electricity is no longer a luxury. It is rather a basic necessity of life deeply integral to other basic rights relating to health, education, livelihood etc. Judicial and policy recognition of this right would empower citizens to hold the people in power responsible and accountable.

4.2 Amendment of Electricity laws to embrace Decentralized and Democratic Energy Future

The Electricity Act, 2003 needs to be amended to facilitate decentralized energy projects, especially in remote, off grid, tribal and ecologically sensitive areas. Decentralised projects like solar microgrids, bioenergy clusters and community farms have the potential to promote clean, affordable and sustainable power while boosting local economy and building climate resilience. The attainment of said goals however requires legal clarity, financial incentives and institutional support.

4.3 Engendered Funding of Clean Energy Projects

Apart from being clean, clean energy funding must also be inclusive. Specially tailored financing schemes must be drafted for women, Dalits, handicapped etc. to flip the narrative from marginalization to leadership. Targeted funding, mentorship and policy support can help attain the said objective.

4.4 Adoption of a bottoms Up Approach

The policy implementation and monitoring, especially in remote areas must be delegated to the third tier of the government, that is Panchayats and Municipalities. This will not only increase inclusivity but also ensure transparency and accountability in framing and execution of energy policies.

Apart from the above discussed reforms, adoption of a multi- stakeholder approach and aligning of energy transition with global imperatives of climate justice and equity imperatives would go a long way in ensuring an equitable, fair and sustainable energy future.

India’s energy future will thus depend on how it rewires its laws, institutions and social contracts. The way forward is clear. India needs towards an energy transition that is bottoms up, rights based and renewable powered.

CONCLUSION: TOWARDS A JUST AND RIGHTS-BASED ENERGY FUTURE

India's journey towards a sustainable and inclusive energy future must be based on the values of justice, equity and constitutional responsibility. Aspiration of a rights-based approach to energy access is no longer idealistic in nature but a practical reality in today's time. As has been pointed out in multiple instruments and ruling of Indian courts discussed in this chapter, electricity is a lifeline for modern day human existence.

The constitutional and legal framework of the country provides for the ideas of energy justice and a right-based access to energy in implicit terms. Yet structural and non-structural gaps as discussed in this chapter continue to hinder the attainment of the said mandates.

As the Indian government emphasizes on the objectives of 'One Nation, One Grid', 'Viksit Bharat by 2047', "Power for All, at All Times", "inclusive and sustainable energy transition", those at the margins must not be forgotten. This will not be possible without transparent institutions, accountable regulators and inclusive drafting and execution of energy policy in a manner that prioritizes the last mile as much as the first.

REFERNCES

Akrofi, M., Okitasari, M., & Kandpal, R. (2022). Recent trends on the linkages between energy, SDGs and the Paris Agreement: A review of policy-based studies. Discover Sustainability, 3, Article 100. https://doi.org/10.1007/s43621-022-00100-y

Chameli Singh v. State of UP, (1996) 2 SCC 549 (India)

Dilip (Dead) through Lrs. v. Satish & Others, 2022 SCC OnLine SC 810 (India).

Framing B. Marak v. State of Meghalaya & Others, PIL No. 3 of 2023 (High Court of Meghalaya, India).

Government of India, Press Information Bureau. (2025, June 22). India's energy landscape: Powering growth with sustainable energy. https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=154717&ModuleId=3

Haldar, S., Peddibhotla, A., & Bazaz, A. (2023). Analysing intersections of justice with energy transitions in India: A systematic literature review. Energy Research & Social Science, 98, 103010. https://doi.org/10.1016/j.erss.2023.103010

Jenkins, K. E. H., McCauley, D., Heffron, R., Stephan, H., & Rehner, R. (2016). Energy justice: A conceptual review. Energy Research & Social Science, 11, 174–182. https://doi.org/10.1016/j.erss.2015.10.004

K.N. Raveendranadanan & Others v. Kerala State Electricity Board & Others, WP (C) No. 34061 of 2014 (High Court of Kerala, India).

Khanna, S. (2023). Enhancing transparency and competitiveness in India's electricity sector (pp. 10–11). Energy for Growth Hub. https://energyforgrowth.org/wp-content/uploads/2023/12/Enhancing-Transparency-and-Competitiveness-in-Indias-Electricity-Sector.pdf

Kumar, P., & Jairaj, B. (2020, September 4). India's energy transition: The challenge with decision making at a time of rapid change. The Energy and Resources Institute of India. https://www.teriin.org/article/indias-energy-transition-challenge-decision-making-time-rapid-change

M. K. Ranjitsinh & Others v. Union of India & Others, 2024 SCC OnLine SC 805 (India).

Marquardt, J., Dasgupta, S., Höhne, C., Lederer, M., & Sankhyayan, P. (2024). Promises and pitfalls of polycentric federalism: The case of solar power

in India. Global Environmental Politics, 24(3), 75–99. https://doi.org/10.1162/glep_a_00749

Michael, S. (2025, February 12). What is holding India back in its renewable energy transition? Institute for Energy Economics and Financial Analysis. https://ieefa.org/resources/whats-holding-india-back-its-renewable-energy-transition

Ministry of Power, Government of India. (2005). National electricity policy. https://lpr.adb.org/resource/national-electricity-policy-2005-india

Ministry of Power, Press Information Bureau. (2025, June 6). Union Minister Shri Manohar Lal chairs Regional Power Conference with Northern States/UTs in Chandigarh. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2134584

NITI Aayog. (2017). The draft national energy policy. https://www.niti.gov.in/sites/default/files/2022-12/NEP-ID_27.06.2017.pdf.pdf

Om Prakash v. Balkar Singh & Others, 2022 LiveLaw (PH) 335 (India).

Pargal, S., & Banerjee, S. (2014). More power to India: The challenge of electricity distribution. World Bank Group. https://documents1.worldbank.org/curated/en/815021468042283537/pdf/More-power-to-India-the-challenge-of-electricity-distribution.pdf

Press Trust of India. (2024, July 25). Private sector owns over 52% of installed power generation capacity of 446GW. Energyworld.com. https://energy.economictimes.indiatimes.com/news/power/private-sector-owns-over-52-pc-of-installed-power-generation-capacity-of-446gw/112016280

Priya, P., Sharma, C., & Jha, C. K. (2024). Asymmetry in the inequality of opportunity in energy consumption across gender, caste, and religion in India. Energy Economics, 141(2), 108110. https://doi.org/10.1016/j.eneco.2024.108110

Raizada, A. (2024, October 15). India's broken power economics: Addressing DISCOMs challenges. Institut français des relations internationales. https://www.ifri.org/sites/default/files/2024-10/ifri_raizada_india_broken_power_economy_2024_1.pdf

Ravetto, L. (2024, September 10). Addressing energy poverty in India. The Borgen Project. https://borgenproject.org/energy-poverty-in-india-2/

Saxena, V. (2017, July 4). India's lower castes are discriminated against even when it comes to accessing electricity and gas. Scroll.in. https://scroll.in/article/842587/indias-lower-castes-are-discriminated-against-even-for-access-to-cooking-gas-and-electricity

Sidortsov, R., & McCauley, D. (2023). Energy justice. In Theorising justice (Chapter 11). Bristol University Press. https://doi.org/10.51952/9781529232233.ch011

Sudharshan Kumar Sharma v. State (NCT of Delhi), (2022) 6 HCC (Del) 534 (India).

Tariff Policy. (2016). https://cercind.gov.in/2018/whatsnew/Tariff_Policy-Resolution_Dated_28012016.pdf

The Constitution of India. (1950).

The Electricity Act, No. 36 of 2003. (2003). https://cercind.gov.in/Act-with-amendment.pdf

The Electricity Conservation Act, No. 52 of 2001. (2001). https://www.indiacode.nic.in/bitstream/123456789/2003/1/A2001-52.pdf

Thomas, G., Demski, C., & Pidgeon, N. (2020). Energy justice discourses in citizen deliberations on systems flexibility in the United Kingdom: Vulnerability, compensation and empowerment. Energy Research & Social Science, 66, 101494. https://doi.org/10.1016/j.erss.2020.101494

Valkenburg, G. (2024). Energy justice as epistemic justice. Ethics, Policy & Environment, 1–22. https://doi.org/10.1080/21550085.2024.2418789

CHAPTER 4

FROM OIL RICHES TO POWER OUTAGES: GOVERNANCE, INEQUALITY, AND ENERGY POVERTY IN NIGERIA

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INTRODUCTION

Nigeria's energy scenario presents one of the most perplexing contradictions in global development discussions. As Africa's foremost oil producer and among the top ten gas-rich nations worldwide, Nigeria possesses vast hydrocarbon resources. However, the nation is still burdened by acute and persistent energy deprivation. According to the World Bank (2021), over 85 million Nigerians, approximately 45% of the populace are deprived of grid electricity, rendering Nigeria the nation with the largest energy access shortfall globally. This irony, where resource abundance coexists with widespread want, lies at the heart of what has been referred to as the "resource curse" or the "paradox of plenty" (Auty, 1993).

Nigeria's energy dilemma is multifaceted. On one side, the country garners billions of dollars annually from oil exports. Conversely, the majority of citizens depend on firewood, charcoal, and kerosene for cooking and small gasoline generators for lighting. In urban hubs such as Lagos, Port Harcourt, and Kano, power outages, commonly known as "NEPA has taken light" are a daily occurrence. In rural regions, the context is even bleaker. Some communities have never been linked to the national grid since independence in 1960. These issues are not merely technical but are deeply political and institutional, rooted in years of misgovernance, corruption, and policy failures (Ishola, 2020).

The paradox is further intensified by Nigeria's classification as a rentier state, a state heavily reliant on the export of natural resources, particularly crude oil. This economic structure has influenced the state-society relations. With over 80% of government income and more than 90% of foreign exchange revenue stemming from oil (NNPC, 2022), successive administrations have favored oil rent extraction over comprehensive economic planning or inclusive development. As Beblawi (1987) contends, rentier states frequently fail to cultivate productive capacity, creating a disincentive for investments in essential infrastructure, including energy systems.
The Nigerian power sector is marked by underinvestment, outdated infrastructure, and weak regulatory oversight. According to Eberhard et al. (2016), the installed electricity generation capacity is approximately 13,000 MW, yet actual production ranges from 3,500 to 5,000 MW, insufficient for a

population exceeding 200 million. In contrast, South Africa, with a smaller populace, generates over 40,000 MW. The inefficiencies are so ingrained that Nigeria loses an estimated $29 billion annually due to unreliable electricity, equivalent to about 2% of its GDP (World Bank, 2021).

Energy deprivation in Nigeria is not uniformly distributed; it mirrors broader socio-economic disparities across the nation. The northern regions, especially the North-East and North-West, exhibit significantly lower electricity access rates than the southern parts. The urban-rural divide is also stark: while urban locales may experience intermittent electricity, most rural communities depend on candles, battery-powered lamps, or firewood. These disparities exacerbate poverty, diminish educational outcomes, restrict access to quality healthcare, and impede economic growth, especially among micro, small, and medium enterprises (MSMEs), which constitute the backbone of Nigeria's informal economy (Akinyele et al., 2018).

Part of the dilemma stems from Nigeria's intricate and often contradictory energy policies. While endeavours have been made to privatize the electricity sector and enhance regulatory frameworks through institutions like the Nigerian Electricity Regulatory Commission (NERC), results have been, at best, mixed. The 2013 privatization of the power sector was anticipated to promote increased investment and efficiency. Instead, it resulted in a situation where new private owners took on debt-ridden and inefficient assets without sufficient regulatory oversight. Tariff increases have not coincided with improved service delivery, leading to public discontent and further politicization of energy reforms (Adenikinju, 2008).

Moreover, the predominance of fossil fuel interests continues to undermine investments in renewable energy. Nigeria is richly endowed with solar, wind, and hydro resources, yet less than 1% of electricity generation is derived from renewables (IRENA, 2021). The preference for oil and gas reflects entrenched interests of political and business elites who benefit from maintaining the status quo. These elites, often closely associated with multinational corporations and international financiers, have little motivation to endorse reforms that could diminish their control over energy rents (Watts, 2004).

Corruption remains a significant hurdle to advancement. The fuel subsidy regime, for instance, has been a considerable drain on public resources, costing the government billions of dollars annually while benefiting a small cadre of importers and intermediaries. Despite numerous attempts to abolish subsidies, including the contentious partial removal in 2012 and the complete removal in 2023, the lack of a solid social protection framework has rendered such reforms socially and politically challenging (Obi, 2010).

In sum, Nigeria's energy dilemma extends beyond mere technical shortcomings or insufficient resources. It stems from the intricate dynamics of political economy where institutional frailty, elite appropriation, and external reliance converge. To truly grasp and tackle this dilemma, one must adopt a comprehensive framework that takes into account not only the factors of supply and demand, but also the wider governance landscape. The lack of democratizing energy governance, ensuring fair energy resource distribution, and broadening the energy mix perpetuates exclusion and stunted growth. Thus, bridging the chasm between resource abundance and energy accessibility is pivotal to Nigeria's overarching pursuit of sustainable development.

Therefore, this chapter aims to scrutinize this contradiction through a critical lens of political economy, which transcends superficial explanations of energy infrastructure shortcomings or technological underinvestment. This viewpoint enables us to probe into the foundational power dynamics, institutional frailties, elite interests, and global factors that shape energy policy, influence its execution, and determine access. The chapter is organized into seven sections, starting with an introduction, followed by the conceptual foundations of political economy, an examination of historical legacies, global effects, and the socio-economic ramifications of energy poverty. It culminates with policy suggestions for inclusive governance.

2. CONCEPTUAL FRAMEWORK

2.1 Political Economy Perspective on Energy Governance

The political economy perspective offers a critical viewpoint to analyze the governance shortcomings and developmental paradoxes in Nigeria's energy landscape. It highlights the influence of power relations, institutional frameworks, and elite interests on policy results, rather than presuming that

states operate solely for the common good. As Leftwich (2007) notes, political economy 'is about who acquires what, when and how' an angle that proves valuable in resource-abundant yet energy-scarce nations like Nigeria.

In Nigeria, the political economy of energy governance reveals a fusion of rentierism, elite appropriation, and institutional fragility. These elements have cultivated a framework where energy policies are seldom guided by technical logic or developmental goals. Instead, they are molded by patronage networks, corruption, and global influences. For example, reforms in the energy sector, such as privatization and deregulation, have often been presented as expert solutions to inefficiency, but in truth, they are contested arenas where both local and international vested interests vie for control over lucrative resources (Watts, 2004).

2.1 Key Concepts

2.1.1 Rentier State

A pivotal concept in the political economy examination of Nigeria's energy sector is that of the rentier state. A rentier state derives a significant share of its national income from the external rents of natural resource exports, like crude oil, rather than from domestic taxation. In such states, public accountability diminishes because governments do not rely on citizen taxes to sustain their operations (Beblawi, 1987). Nigeria's rentier status has created a skewed social contract. Rather than serving and addressing the needs of its citizens, the Nigerian state mainly concentrates on managing and allocating oil revenues. This has resulted in a patronage-driven political culture, where gaining access to power equates to acquiring oil-related wealth. The unwillingness to channel oil revenues into vital sectors like power generation, grid infrastructure, and renewable energy technologies underscores the misaligned priorities of a rentier state.

A stark illustration of this is the Nigerian National Petroleum Corporation (NNPC), which has a history of operating with little transparency and has been involved in multi-billion-dollar scandals. In 2015, then Central Bank Governor, Sanusi Lamido Sanusi, accused the NNPC of neglecting to remit over $20 billion to the federation account, a case that illustrates how

rentier structures promote corruption and undermine public scrutiny (Global Witness, 2015).

2.1.2 Elite Capture

Closely tied to rentierism is the issue of elite capture, the mechanism through which influential political and economic players exploit public institutions, policies, and resources for personal gain. In Nigeria's energy sector, elite capture displays itself through inflated contracts, obscure procurement processes, and the distribution of power generation licenses to politically affiliated firms. A notable example is the contentious fuel subsidy regime, which has been plagued by extensive fraud. Investigations by Nigeria's House of Representatives in 2012 unveiled that over ₦1.07 trillion ($6.8 billion) had been wrongfully claimed by companies that did not import any fuel (Ikelegbe, 2005; Human Rights Watch, 2012). Many of these firms were connected to high-ranking government officials and party benefactors.

Despite public anger and sporadic arrests, substantial prosecutions are rare, highlighting the impunity enjoyed by the elite. Likewise, the privatization of the power sector in 2013, intended to enhance efficiency and competition, ultimately resulted in the transfer of valuable national assets to friends and political allies. For instance, numerous Generation Companies (GenCos) and Distribution Companies (DisCos) were assigned to firms lacking prior experience in energy management but possessing strong political connections. Consequently, power supply has remained inconsistent, and Nigerians have witnessed little improvement in service delivery despite rising tariffs (Adenikinju, 2008).

2.1.3 Energy Justice

In stark contrast to the exploitative dynamics previously mentioned, the notion of energy equity offers a guiding framework for rethinking energy governance in Nigeria. Energy equity underscores three interconnected principles: distributive equity (just allocation of energy resources), procedural equity (inclusive decision-making processes), and recognition equity (validating the needs and perspectives of marginalized communities) (Sovacool & Dworkin, 2015).

Utilizing this framework unveils the profound inequalities ingrained in Nigeria's energy landscape. For example, while wealthy neighborhoods in Abuja or Lagos can afford personal generators or solar installations, rural areas in states like Zamfara, Borno, and Ebonyi remain engulfed in darkness. Even within urban settings, residents of slums and low-income groups are disproportionately impacted by power outages and inconsistent billing practices (Akinyele et al., 2018). Women and children, in particular, suffer the most from energy deprivation, spending extensive hours collecting firewood or waiting in line for kerosene.

Energy equity advocates for strategies that explicitly tackle these imbalances. It necessitates increased funding in decentralized renewable energy solutions such as mini-grids and solar home installations, which can swiftly enhance access in off-grid regions. It also calls for more inclusive governance frameworks where local communities, civil society groups, and marginalized populations can engage meaningfully in energy planning and supervision. A commendable instance is the efforts of organizations like the Rural Electrification Agency (REA) and the Solar Power Naija Initiative, which strive to provide off-grid solutions to neglected regions. Nevertheless, without systemic reforms that break down elite dominance and guarantee transparency, such initiatives may fall prey to co-optation or become ineffective.

3. HISTORICAL AND POLITICAL CONTEXT

3.1 Evolution of Nigeria's Energy Sector Governance

The historical trajectory of Nigeria's energy sector governance is marked by centralization, politicization, and systemic underdevelopment. At independence in 1960, Nigeria inherited an energy infrastructure that was rudimentary, regionally fragmented, and oriented primarily toward colonial extraction rather than national development. The post-independence period witnessed an expansion of state involvement in the energy sector, particularly in oil production, which rapidly emerged as the backbone of the economy following the oil boom of the 1970s.

The creation of the Nigerian National Oil Corporation (NNOC) in 1971, and later its merger with the Ministry of Petroleum to form the Nigerian

National Petroleum Corporation (NNPC) in 1977, marked a decisive turn toward state monopolization of oil and gas assets (Watts, 2004). This development was justified on grounds of national sovereignty and economic nationalism. However, the NNPC quickly became emblematic of the opaque and rent-seeking culture in Nigerian public enterprises. Despite commanding enormous revenues, Nigeria earned over $400 billion from oil exports between 1981 and 2000, the NNPC was consistently ranked among the least transparent national oil companies globally (Natural Resource Governance Institute, 2013).

During the military regimes of the 1970s through the 1990s, particularly under Generals Yakubu Gowon, Ibrahim Babangida, and Sani Abacha, the oil sector was used as a tool of political consolidation. Oil blocks were routinely awarded as patronage to loyalists, and revenues were managed off-budget, with little parliamentary oversight. For example, during the Abacha era (1993–1998), over $2 billion in oil revenues was diverted into personal foreign accounts, with no connection to public investment in energy infrastructure (Human Rights Watch, 1999). As a result, the development of downstream infrastructure such as refineries, power generation plants, and transmission networks was systematically neglected.

While oil governance dominated national energy politics, electricity development lagged far behind. The colonial-era Electricity Corporation of Nigeria (ECN) and the post-independence Nigerian Electricity Power Authority (NEPA) became notorious for inefficiency and corruption. The energy policy focus remained skewed toward oil extraction for export, rather than domestic energy access and development. Between 1990 and 1999, Nigeria's power generation capacity stagnated at around 4,000 MW, while the population more than doubled (Adenikinju, 2008). This created a severe supply-demand gap that persists today.

The return to civilian rule in 1999 brought hopes of energy sector reform. President Olusegun Obasanjo introduced the National Electric Power Policy in 2001, followed by the landmark Electric Power Sector Reform Act (EPSRA) of 2005, which created the Nigerian Electricity Regulatory Commission (NERC) and unbundled NEPA into 18 successor companies (6 generation, 11 distributions, and 1 transmission). However, these reforms have suffered from weak implementation, bureaucratic inertia, and elite sabotage.

3.2 Role of Political Elites and Institutions

The role of political elites and institutions in shaping Nigeria's energy policy has been profound and, often, counterproductive. Energy governance in Nigeria is deeply embedded in patron-client networks, where policy decisions are not based on technical feasibility or social need but on the imperatives of rent allocation and political survival.

The EPSRA of 2005, for instance, was a bold attempt to liberalize the electricity market and introduce regulatory transparency. However, the political class has largely resisted its full implementation, particularly provisions that would empower the NERC to independently sanction utilities or enforce service standards. Many electricity distribution companies (DisCos) and generation companies (GenCos) that emerged from the 2013 privatization exercise were allocated to firms with strong political affiliations but limited technical expertise. For example, critics argue that the privatization process under President Goodluck Jonathan was non-transparent and resulted in the entrenchment of vested interests who prioritize profits over service delivery (Aliyu, Dada, & Adam, 2015).

Moreover, the fuel subsidy regime—ostensibly introduced to protect the poor—has been a major site of elite manipulation. Politically connected importers routinely inflate invoices or collect subsidies without delivering fuel, costing the nation over $20 billion in less than a decade (BudgIT, 2019). Attempts to remove or reform the subsidy system have repeatedly faced elite pushback due to the high stakes involved in this opaque racket.

At the institutional level, NNPC's governance structure is notoriously convoluted. It operates with little parliamentary oversight, reports directly to the Presidency, and maintains multiple revenue streams that are off-budget. Despite numerous audit recommendations and reform blueprints such as the 2012 Ribadu Report and the 2019 NEITI Audit—NNPC continues to function with minimal transparency. This has allowed entrenched elites to resist any reform that might threaten their control over oil rents (NEITI, 2021).

Even Nigeria's engagement with international institutions is shaped by elite preferences. For example, the adoption of the World Bank-supported privatization of the power sector was driven more by the need to secure donor funding than by a genuine commitment to structural transformation. As a result,

reform outcomes have been limited, and new private owners often perpetuate the same inefficiencies they were meant to resolve (Adenikinju, 2008).

In addition, legislative inaction has hindered energy governance reform. The long-delayed Petroleum Industry Bill (PIB), first introduced in 2008 and finally passed in 2021 as the Petroleum Industry Act (PIA), languished for over a decade due to conflicting elite interests. Even in its final form, critics argue that the PIA disproportionately favors oil corporations and the federal government while offering inadequate environmental and developmental safeguards for host communities (Stakeholder Democracy Network, 2021).

4. GLOBAL INFLUENCES AND POLICY CHALLENGES

4.1 Impact of Multinational Corporations and International Financial Institutions (IFIs)

Global actors, particularly multinational oil corporations and international financial institutions (IFIs), have significantly shaped Nigeria's energy governance in ways that often undermine national development priorities. Multinational corporations (MNCs) such as Royal Dutch Shell, Chevron, ExxonMobil, and TotalEnergies have dominated Nigeria's upstream oil sector for decades, engaging in joint ventures with the Nigerian National Petroleum Corporation (NNPC). These corporations have operated under fiscal and legal frameworks that favor capital repatriation and tax holidays, often at the expense of environmental sustainability and energy access for the local population.

For instance, Shell, Nigeria's largest onshore oil operator, has been repeatedly implicated in environmental degradation and human rights violations in the Niger Delta, contributing to the region's underdevelopment despite being the source of Nigeria's oil wealth (Obi, 2010). A landmark case involved the Ogoni crisis of the 1990s, during which Shell was accused of colluding with the Nigerian military in suppressing local resistance to oil operations led by the Movement for the Survival of the Ogoni People (MOSOP) (Watts, 2004). This crisis, and others like it, illustrates how MNCs reinforce extractive economies by prioritizing crude oil exports over local energy infrastructure development.

Meanwhile, international financial institutions, particularly the World Bank and the International Monetary Fund (IMF), have promoted neoliberal policy frameworks focused on market liberalization, privatization, and fiscal austerity. These prescriptions, often tied to structural adjustment programs (SAPs) and loan conditions, have had lasting consequences for Nigeria's energy governance. For example, the IMF's 2000–2001 Country Policy Framework Paper urged Nigeria to cut fuel subsidies and liberalize the downstream petroleum sector to "enhance economic efficiency" (IMF, 2001). However, such reforms were introduced without adequate regulatory capacity or social protection mechanisms, exacerbating inequality and public resistance.

In the electricity sector, the World Bank has played a key role in pushing privatization through technical assistance, loans, and policy advocacy. While the stated goal was to attract investment and improve service delivery, the implementation of these reforms revealed fundamental contradictions between global market models and local institutional realities. The result has been an elite-dominated energy market that remains unaccountable to the public.

4.2 Privatization, Deregulation, and Reform Contradictions

The privatization of Nigeria's power sector, launched in 2013 under President Goodluck Jonathan's administration, was one of the largest in sub-Saharan Africa. It involved the unbundling of the Power Holding Company of Nigeria (PHCN) into 18 successor companies: six for generation (GenCos), one for transmission (TCN), and eleven for distribution (DisCos). The World Bank and other donors supported this process as a way to depoliticize the sector and improve efficiency (Eberhard et al., 2016).

However, the privatization process was fraught with flaws. Most DisCos and GenCos were sold to politically connected businesses with little prior experience in power sector operations. Transparency International Nigeria and the Centre for Social Justice criticized the bidding process for lacking transparency and due diligence (Onyeji, 2014). In effect, public monopolies were replaced with private oligopolies, and the anticipated benefits, reliable power, competitive pricing, and increased investment failed to materialize. Over a decade later, Nigeria still struggles to generate more than 5,000 MW of

electricity for over 200 million people, with DisCos consistently failing to improve grid coverage or customer service.

Furthermore, deregulation policies promoted under external pressure have often led to social unrest. One of the most contentious reforms has been the removal of fuel subsidies. In January 2012, the Jonathan administration abruptly removed subsidies, causing petrol prices to double overnight from ₦65 to ₦141 per litre. The ensuing nationwide protests, known as #OccupyNigeria**,** forced the government to partially reinstate the subsidy (BBC News, 2012). Protesters viewed the reform as unjust and poorly timed, particularly in the absence of improved services or credible measures to tackle corruption.

Despite these concerns, subsidy removal resurfaced under President Muhammadu Buhari in 2020, as part of the Petroleum Industry Act (PIA) reforms, and again under President Bola Tinubu in 2023. In both cases, the decision was framed as a fiscal necessity supported by the IMF and World Bank. Yet, the removal led to sharp increases in transport and food prices**,** worsening the cost-of-living crisis in a country where over 40% of the population lives below the poverty line (World Bank, 2023).

Moreover, the Transmission Company of Nigeria (TCN)—still government-owned—has remained a major bottleneck, with its aging infrastructure unable to support expanded generation. The reform's central contradiction is that while the private sector was given control of generation and distribution, the single, underfunded government agency retained control over transmission, thereby creating a fragmented and dysfunctional energy value chain (Adenikinju, 2008). Thus, the neoliberal logic of privatization and deregulation, imposed largely by IFIs and welcomed by political elites seeking legitimacy and funding, has failed to resolve Nigeria’s energy challenges. Instead, it has produced a hybrid system where profits are privatized, but losses such as tariff shortfalls, infrastructure deficits, and public backlash are socialized.

5. ENERGY POVERTY AND DEVELOPMENT FAILURES

5.1 Regional and Socioeconomic Disparities in Energy Access

Energy poverty in Nigeria is not just a national crisis. It is profoundly unequal across regions, social classes, and urban–rural divides. While the southern states and major urban centers like Lagos, Port Harcourt, and Abuja enjoy relatively higher levels of electricity access, vast swathes of the North-East, North-West, and rural areas remain energy-deprived. According to the National Bureau of Statistics (NBS, 2022), only 26.5% of households in the North-East have access to grid electricity, compared to 71.8% in Lagos State. This disparity is further exacerbated by the impacts of insurgency and infrastructural neglect in the northern region, making investment in grid extension both politically and economically unappealing to private investors.

These regional energy inequalities reflect broader patterns of state failure in equitable resource distribution. As scholars like Akinbami and Salami (2020) argue, Nigeria's energy development policies have historically been shaped by extractive rather than redistributive logic, privileging elite-controlled urban centers while marginalizing rural and peri-urban communities. Consequently, regions that are politically weaker or economically less strategic are routinely excluded from critical energy infrastructure investments.

The socioeconomic implications are staggering. Poor households, especially in rural areas, often resort to using kerosene, firewood, or candles for lighting and cooking, fuels that are both environmentally harmful and expensive over time. A 2021 World Bank report estimated that Nigerian households spend more than $14 billion annually on diesel and petrol generators, which are both inefficient and environmentally destructive (World Bank, 2021). The poor bear a disproportionate share of this cost, often spending up to 40% of their income on energy substitutes, compared to only 10% by wealthier households (GIZ, 2020).

5.2 Impacts on Livelihoods, Education, and Health

The development failures associated with Nigeria's energy poverty are starkly evident in the country's health, education, and economic productivity outcomes. Energy poverty directly impairs the delivery of essential social

services, undermining human development and perpetuating cycles of deprivation.

Health Sector: In the healthcare system, particularly in rural clinics and primary healthcare centers, lack of reliable electricity severely limits diagnostic capabilities, surgical procedures, and the storage of life-saving medicines. During the COVID-19 pandemic, the inability to refrigerate vaccines due to frequent power outages or complete lack of electricity led to significant vaccine spoilage, particularly in states like Zamfara**,** Taraba, and Benue (UNDP, 2021, p. 41). Moreover, many maternity wards are forced to conduct nighttime deliveries by torchlight or kerosene lamps, putting both mothers and newborns at risk. According to a 2020 Health Facility Survey by the Federal Ministry of Health, only 42% of primary health care centers nationwide had any access to electricity, and even fewer had backup power systems (FMoH, 2020).

Education Sector: Educational outcomes are similarly undermined. In rural schools, students study under dim lighting or in poorly ventilated classrooms, limiting learning hours and concentration. Lack of electricity also prevents the use of digital tools and hinders administrative operations like maintaining student records. In Yobe and Kebbi states, for instance, less than 20% of public schools have functional electricity supply, according to a 2021 report by the Universal Basic Education Commission (UBEC)**.** These conditions disadvantage pupils in energy-poor communities, deepening the urban–rural divide in educational achievement.

Livelihoods and Economic Productivity: Small and medium enterprises (SMEs) which form the backbone of Nigeria's informal economy—are acutely affected by unreliable electricity. Many small businesses, such as barbershops, tailors, and welders, operate in off-grid communities and must rely on costly diesel or petrol generators. This increases operating costs and limits profit margins. According to the International Centre for Energy, Environment and Development (ICEED, 2021), more than 70% of microenterprises in rural areas report losing over 20 business days per year due to electricity outages. Furthermore, lack of power hinders agricultural productivity, especially in the North, where inadequate access to solar or grid-powered irrigation systems restricts dry season farming.

In more urban contexts, even sectors like banking, ICT, and hospitality—which are highly dependent on energy—spend heavily on self-generation. The Manufacturers Association of Nigeria (MAN) reported that over 40% of production costs for manufacturers are energy-related, making Nigerian goods globally uncompetitive (MAN, 2020). Thus, energy poverty is not only a developmental issue but also a structural economic constraint.

6. TOWARD INCLUSIVE AND SUSTAINABLE ENERGY GOVERNANCE

6.1 Civil Society Engagement and Reform Prospects

In recent years, civil society organizations (CSOs) in Nigeria have emerged as critical stakeholders in advocating for transparency, accountability, and inclusivity in energy governance. Organizations such as BudgIT, the Socio-Economic Rights and Accountability Project (SERAP), and Connected Development (CODE) have challenged opaque energy sector practices and drawn attention to corruption in subsidy regimes, poor service delivery, and unequal access to electricity.

For instance, BudgIT's public budget tracking and infographics have exposed inflated electricity project costs and misallocated subsidies in the Power Sector Recovery Programme (PSRP), thereby pressuring the government for greater transparency (BudgIT, 2020). SERAP has taken legal action demanding that the Federal Government disclose how billions of naira allocated to power sector reforms since 1999 have been spent. In 2019, SERAP filed a Freedom of Information (FOI) lawsuit compelling the Nigerian Electricity Regulatory Commission (NERC) to explain persistent failures in service delivery despite heavy investment (SERAP, 2019).

Connected Development's "Follow the Money" initiative has helped rural communities hold energy contractors and local governments accountable, particularly in solar power installations and rural electrification schemes. For example, in Nasarawa State, CODE successfully pressured contractors to complete an abandoned solar mini-grid project for a health centre in Agaza community in 2021, an outcome that would likely not have occurred without civil society pressure (CODE, 2022).

At the state level, Lagos, Kaduna, and Ekiti have started experimenting with decentralized energy governance, influenced partly by civil society pressure and the realization that federal interventions alone are inadequate. The Lagos State Electricity Policy (2021) a landmark document acknowledges the role of off-grid renewable energy, community participation, and private investment. This trend reflects a growing openness to subnational innovation in energy governance. These examples show that while civil society engagement is still evolving, it offers promising prospects for democratizing Nigeria's energy future and ensuring that ordinary citizens particularly those in rural or underserved areas—have a voice in shaping energy policy.

6.2 Policy Recommendations for Equity and Energy Justice

Building a sustainable and inclusive energy system in Nigeria requires transformative policy changes that address both structural and distributive failures. The following policy recommendations aim to align governance practices with the principles of energy justice, which emphasize equitable access, fair treatment, and participatory decision-making (Sovacool & Dworkin, 2015).

Decentralize Energy Governance: Nigeria's centralized energy system has proven unable to meet local needs, especially in rural areas. Mini-grid solutions—particularly solar-powered microgrids—have demonstrated remarkable success in improving access in off-grid communities. According to the Rural Electrification Agency (REA), over 99 mini-grid projects were implemented between 2017 and 2022, providing electricity to over 300,000 Nigerians, mainly in underserved rural areas (REA, 2022). These projects have also enhanced local ownership, job creation, and community resilience. To accelerate progress, local governments should be granted policy and fiscal autonomy to collaborate with developers and manage community-based energy systems.

Promote Transparency in Energy Contracts: Opaque contracting processes in the power sector have undermined public trust and contributed to failed reforms. Between 1999 and 2020, Nigeria reportedly spent over $25 billion on power sector reforms with minimal improvement in service delivery (Eberhard et al., 2016). Public disclosure of contracts—especially power

purchase agreements (PPAs), concession deals, and subsidy disbursements—must be mandatory. Establishing an open energy contract registry under NERC's oversight would help prevent elite capture and corruption.

Invest in Renewable Energy for Rural Development: Renewables, particularly solar photovoltaics**,** offer Nigeria a sustainable pathway to rural electrification, emissions reduction, and green job creation. The Nigeria Electrification Project (NEP)**,** a collaboration between the World Bank, REA, and private firms has already electrified over 600 schools and health centres using solar systems (World Bank, 2022). Moreover, solar energy has reduced reliance on diesel generators in agricultural processing hubs in Kano and Benue**,** enhancing food preservation and processing efficiency. Scaling such efforts with appropriate incentives and financing mechanisms (such as interest-free loans for rural cooperatives) would yield long-term development dividends.

Strengthen Regulatory Institutions: The Nigerian Electricity Regulatory Commission (NERC) and other key institutions must be insulated from political interference and patronage networks that obstruct reforms. NERC's ability to enforce service standards, tariff regulation, and consumer protection depends on its independence. Yet, past administrations have undermined its authority by politicizing appointments or ignoring its directives. A constitutional or legislative amendment securing tenure, budgetary autonomy, and non-partisan recruitment could help reposition NERC as an effective watchdog in the power sector (Adenikinju, 2008). Additionally, regulatory reform must empower state electricity markets under the 2023 constitutional amendment, which removed electricity from the exclusive legislative list. This opens opportunities for state-level regulation, competition, and community involvement in electricity provision.

CONCLUSION

Nigeria's energy paradox, characterized by vast resource wealth coexisting with pervasive energy poverty is deeply rooted in the country's political economy. This chapter has provided a critical analysis of the governance of Nigeria's energy sector through the lens of political economy, revealing how elite capture, rentierism, weak institutions, and the influence of

global capital have shaped policy outcomes that privilege profits over people. Historically, the energy sector has been governed by rent-seeking elite whose interests often conflict with the goals of equitable development. The adoption of neoliberal reforms, particularly privatization and deregulation, has not delivered the promised efficiency or accessibility. Instead, these reforms have further entrenched inequality, excluded citizens from decision-making, and failed to deliver reliable energy to the majority of Nigerians.

A people-centered energy governance framework offers a path forward. By repositioning energy as a right and a public good, promoting democratic participation, strengthening regulatory institutions, embracing decentralized renewables, and ensuring gender and social inclusion, Nigeria can begin to close the gap between its resource endowment and development outcomes. This transformation, however, is not merely technical, it is political. It requires a fundamental reorientation of institutions, policy priorities, and power relations. Without such a shift, Nigeria's energy crisis will persist, undermining the prospects for inclusive and sustainable development.

The Way Forward: Toward Transformative Energy Governance

Transformative energy governance requires democratizing decision-making, addressing historical injustices, and prioritizing public welfare over elite interests. Without these shifts, Nigeria's energy wealth will continue to coexist with widespread deprivation. To address the systemic failures in Nigeria's energy sector, a people-centered and justice-oriented governance framework is required. This entails not just policy tweaks but a fundamental rethinking of the energy system's purpose and beneficiaries.

- Re-embed Accountability in Governance Structures: A central task is to dismantle elite capture by strengthening institutional checks, promoting transparency in procurement and subsidy regimes, and ensuring the independence of regulatory bodies such as NERC. Legislative reforms must support greater oversight over energy contracts and budgeting.
- Localize and Decentralize Energy Provision**:** Empowering state governments and communities to drive localized energy solutions will help tailor responses to specific regional needs. The 2023 constitutional amendment allowing states to generate and distribute electricity provides

a legal basis for such decentralization. Policies must encourage mini-grid development, especially in rural and conflict-affected zones.

- Mainstream Renewable Energy in Development Policy**:** Renewable energy should not be treated as a peripheral concern but as a core development strategy. Large-scale solar projects, off-grid electrification, and hybrid energy models can be integrated into agricultural zones, educational facilities, and health centers to boost productivity and human development indicators.
- Foster Inclusive Participation**:** Citizens, civil society, and local entrepreneurs must be given meaningful platforms to contribute to energy planning. Participatory budget processes, community monitoring of projects, and open-data platforms can foster a more inclusive energy system.
- Align Energy Policy with Equity and Justice Goals: Finally, energy governance must adopt the lens of energy justice, ensuring that access, affordability, and environmental sustainability are central to decision-making. This implies recognizing the disproportionate burden borne by women, rural dwellers, and the urban poor in current energy arrangements, and tailoring interventions to correct these imbalances (Sovacool & Dworkin, 2015).
- Reassess Neoliberal Reforms and Rebalance Public-Private Roles: Review the outcomes of privatization and explore hybrid models that combine public oversight with private sector innovation, especially in underserved areas. Reintroduce targeted subsidies where necessary to protect the poor.
- Foster International Solidarity without Surrendering Sovereignty: Engage global capital and donors through transparent, development-focused partnerships that align with national priorities. Ensure that foreign investments are subject to strict environmental, social, and human rights standards.

REFERENCES

Adenikinju, A. (2008). Efficiency of the energy sector and its impact on the competitiveness of the Nigerian economy. *International Association for Energy Economics*, 29(4), 27–34.

Adewuyi, A. O., & Oyejide, T. A. (2012). Determinants of backward linkages of oil and gas industry in the Nigerian economy. *Resources Policy*, 37(4), 452–460.

Akinbami, J.-F. K., & Salami, O. A. (2020). Renewable energy development in Nigeria: Policy and institutional framework. *Renewable and Sustainable Energy Reviews, 133*, 110353.

Akinyele, D. O., Rayudu, R. K., & Babatunde, O. M. (2018). Sustainable energy development in Nigeria: Wind, hydropower, geothermal and energy policy. *Renewable and Sustainable Energy Reviews*, 81, 203–220.

Aliyu, A. S., Dada, J. O., & Adam, I. K. (2015). Current status and future prospects of renewable energy in Nigeria. *Renewable and Sustainable Energy Reviews*, 48, 336–346.

Auty, R. M. (1993). *Sustaining development in mineral economies: The resource curse thesis*. Routledge.

BBC News. (2012, January 9). *Nigeria fuel protests: Thousands rally across the country*. https://www.bbc.com/news/world-africa-16463880

Beblawi, H. (1987). The rentier state in the Arab world. In H. Beblawi & G. Luciani (Eds.), *The Rentier State* (pp. 49–62). Croom Helm.

BudgIT. (2019). *Nigeria's fuel subsidy regime: Dilemma of the world's most populous black nation*. https://yourbudgit.com

BudgIT. (2020). *Power Sector: Examining the Burden of Inadequate Electricity on Nigerians*. https://yourbudgit.com

Connected Development (CODE). (2022). *Follow The Money Annual Report*. https://www.connecteddevelopment.org

Eberhard, A., Gratwick, K., Morella, E., & Antmann, P. (2016). *Independent Power Projects in Sub-Saharan Africa: Lessons from Five Key Countries*. World Bank Publications.

Federal Ministry of Health (FMoH). (2020). *National Health Facility Survey Report*.

GIZ. (2020). *Nigeria Energy Sector Overview*. Deutsche Gesellschaft für Internationale Zusammenarbeit.

Global Witness. (2015). *Inside NNPC's financial black hole: A comprehensive audit of Nigeria's oil revenues*. https://www.globalwitness.org

Human Rights Watch. (1999). *The Price of Oil: Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities*. https://www.hrw.org

Human Rights Watch. (2012). *Nigeria: Probe fuel subsidy scam*. https://www.hrw.org/news/2012/06/14/nigeria-probe-fuel-subsidy-scam

ICEED. (2021). *Rural Energy Access and Small Business Resilience in Nigeria*.

Ikelegbe, A. (2005). The economy of conflict in the oil rich Niger Delta region of Nigeria. *Nordic Journal of African Studies*, 14(2), 208–234.

Ikelegbe, A. (2005). The economy of conflict in the oil-rich Niger Delta region of Nigeria. *Nordic Journal of African Studies*, 14(2), 208–234.

IMF. (2001). *Nigeria: Country Policy Framework Paper*. Washington, DC: International Monetary Fund.

International Renewable Energy Agency (IRENA). (2021). *Renewable Energy Market Analysis: Africa and its Regions*. https://www.irena.org

Ishola, R. A. (2020). Understanding the paradox of energy poverty in resource-rich Nigeria. *Journal of Energy & Development*, 45(2), 89–102.

Leftwich, A. (2007). *The political approach to development: An analytical guide*. Development Leadership Programme.

Leftwich, A. (2007). *The political approach to institutional change and economic development*. IPPG Discussion Paper No. 14.

Manufacturers Association of Nigeria (MAN). (2020). *Annual Economic Review Report*.

National Bureau of Statistics (NBS). (2022). *Electricity Report: 2019–2021*. https://www.nigerianstat.gov.ng

National Bureau of Statistics (NBS). (2022). *Energy Access and Use Report*.

Natural Resource Governance Institute. (2013). *NNPC: A case for reform*. https://resourcegovernance.org

NEITI. (2021). *NEITI 2019 Oil and Gas Industry Audit Report*. https://neiti.gov.ng

Nigerian National Petroleum Corporation (NNPC). (2022). *NNPC Annual Statistical Bulletin 2021*. https://nnpcgroup.com

Obi, C. (2010). Oil as the 'curse' of conflict in Africa: Peering through the smoke and mirrors. *Review of African Political Economy*, 37(126), 483–495.

Obi, C. I. (2010). Oil extraction, dispossession, resistance, and conflict in Nigeria's oil-rich Niger Delta. *Canadian Journal of Development Studies*, 30(1-2), 219–236.

Onyeji, I. (2014, August 12). *Nigeria power sector privatization: a model of failure*. Premium Times. https://www.premiumtimesng.com

REA. (2022). *Rural Electrification Projects Report*. https://rea.gov.ng

SERAP. (2019). *Press Release on FOI Lawsuit Against NERC*. https://serap-nigeria.org

Sovacool, B. K., & Dworkin, M. H. (2015). Energy justice: Conceptual insights and practical applications. *Applied Energy*, 142, 435–444.

Stakeholder Democracy Network (SDN). (2021). *Analysis of the Petroleum Industry Act 2021: Implications for oil-producing communities*. https://www.stakeholderdemocracy.org

UNDP. (2021). *Energy Access and Human Development in Nigeria*. https://www.ng.undp.org

Watts, M. (2004). Resource curse? Governmentality, oil and power in the Niger Delta, Nigeria. *Geopolitics*, 9(1), 50–80.

World Bank. (2021). *Nigeria: Power Sector Recovery Program Review*. https://www.worldbank.org

World Bank. (2021). *Tracking SDG 7: The Energy Progress Report*. https://trackingsdg7.esmap.org

World Bank. (2022). *Nigeria Electrification Project (NEP) Progress Report*. https://www.worldbank.org

World Bank. (2023). *Nigeria Economic Update: Inflation, Subsidy Reform and the Path Forward*. https://www.worldbank.org

PREFACE

In the present era, characterized by swift shifts in the global energy sphere, deepening climate-related emergencies, and significant geopolitical transformations, the organization and regulation of international energy systems have become issues of paramount importance. Confronting these realities goes beyond technical progress or market efficiency; it necessitates a conscious alignment with values such as equity, distributive fairness, and environmental responsibility—cornerstones in ensuring that the benefits and burdens of energy transitions are fairly allocated across countries, communities, and generations yet to come.

This work offers an expansive and interdisciplinary investigation into the political, legal, and ethical factors that influence energy governance in the modern context. The chapters engage with a wide array of themes, from the functioning of global regulatory bodies and the influence of legal regimes to the pressures of market forces and the imperatives of moral accountability. Each contribution critically examines persistent inequities embedded within existing systems while also mapping potential avenues for restructuring governance toward inclusivity, transparency, and shared accountability.

Spanning fields such as comparative politics, international law, moral philosophy, environmental policy, and energy economics, the analyses presented here reveal the underlying tensions between national priorities and the collective obligations of the global commons. The volume underscores the urgency of creating governance approaches that, in addition to securing energy reliability and optimizing resources, actively advance climate justice, safeguard human rights, and preserve ecological integrity for the long term.

We extend sincere gratitude to all the scholars whose intellectual commitment and analytical insight have made this volume possible. Their work substantially enriches contemporary debates on global energy governance and justice, offering forward-looking perspectives that can inform both academic inquiry and practical policy design in pursuit of a more equitable and sustainable energy future.

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