Defining Energy Sovereignty under Natural Rights Led Governance

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Technical Paper

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Change Initiative is a Bangladesh-based research and advocacy organization focused on designing practical, nature-smart, and policy-driven solutions for sustainable development. This study explores decarbonization pathways for SMEs under BSCIC, integrating technological, financial, and governance reforms to enable a scalable low-carbon industrial transition.

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Within the context of the Natural Rights Led Governance model, Energy Sovereignty has been described as the "natural right of a nation and its communities to chart their own course in the use of sustainable local renewable resources without the constraints of external geopolitics or corporate influences." Unlike the more conventional concept of 'Energy Security,' which has emphasized the 'availability of fuel resources' - in the form of imported fossil fuels - Energy Sovereignty in the NRLG model considers energy as a 'service to the common good' which must respect the 'rights of nature.' For climate-risk countries and LDCs, this would mean moving from the 'import trap' to the 'self-sufficiency model' in which the 'Natural Right to Energy' becomes the 'cornerstone of national and community survival.'

KEY INDICATORS OF ENERGY SOVEREIGNTY

To measure the transition toward energy sovereignty for LDCs and climate-vulnerable nations, the following indicators are central to the NRLG model:

• **COMMUNITY SOVEREIGNTY (RIGHT OF REFUSAL)**	The level to which communities have the legal and practical power to engage in, or refuse, energy projects on their territory. This ensures that the energy produced does not interfere with the traditional rights or natural habitats of the communities it aims to serve.
• **DECENTRALIZATION OF ENERGY GENERATION**	The proportion of localized, decentralized renewable energy technologies to centralized, large-scale utility grids. High energy sovereignty corresponds to a decentralized energy system, which makes the system less susceptible to single points of failure or supply chain disruptions.
• **RESOURCE CIRCULARITY & EXTERNALITIES ACCOUNTING**	The inclusion of full-cost accounting in the pricing structure. This indicator measures the inclusion or absence of the full cost of environmental damage and "ecosystem debt" in the price structure. This ensures that the energy produced does not exhaust the natural rights of future generations.

- **DOMESTIC RENEWABLE MIX (SOLAR/WIND RATIO)**

The proportion of the total primary energy supply derived from domestic renewable energy sources versus imported fossil fuel sources. For LDCs, a higher ratio corresponds to a higher level of energy sovereignty and a stronger sense of liberation from the debt cycles and geopolitical risks associated with the international oil and gas industry.

- **LEGAL RECOGNITION OF THE RIGHTS OF NATURE**

Whether national legal frameworks recognize ecosystems as entities with inherent rights. Energy sovereignty under NRLG requires that energy infrastructure projects maintain Net-Zero Ecosystem Loss, protecting the biodiversity that serves as the foundation for climate resilience.

COMPARISON: ENERGY SECURITY VS. ENERGY SOVEREIGNTY

Feature	Energy Security (Conventional)	Energy Sovereignty (NRLG)
Primary Goal	Supply stability at any cost	Upholding Natural Rights & Self-Determination
Resource Base	Often dependent on fossil fuel imports	Localized Renewables (Solar, Wind, Tidal)
Governance	Centralized, top-down	Decentralized, community-led
Environmental View	Resource to be exploited	Ecosystem to be co-existed with
Financial Focus	Subsidy for consumption	Investment in sovereign infrastructure

By applying these indicators, climate-vulnerable countries will no longer be seen as victims of global warming but as leaders in a new form of human rights-based energy development that will bring both survival and prosperity.

COUNTRIES EMERGING WITH ENERGY SOVEREIGNTY

Indeed, there are several countries that have emerged as pioneers in the global energy movement by aligning their energy development with the principles of sovereignty, decentralization, and the rights of nature. Here are some examples of these pioneering countries, categorized according to the indicators we have set:

01 COMMUNITY SOVEREIGNTY & LOCAL OWNERSHIP

• **Denmark:** A global benchmark for "Right of Refusal" and community participation. For the past 15+ years, Denmark has made it a requirement under its laws that all new wind projects must have at least 20% community ownership. This way, the energy revolution is not imposed on the people but is instead a "Natural Right" exercise for the people of Denmark, where more than half of its installed wind capacity is owned by its people.

• **Germany:** Germany's highly successful "Energiewende" (energy revolution) has been made possible because of more than 1,000 energy cooperatives across the country. This way, the German people have the right to own the "means of generation," which has resulted in energy being owned by the people rather than corporations, as you have postulated in your NRLG theory.

02 DECENTRALIZATION & DISTRIBUTED ENERGY

• **Bangladesh:** Despite still being in the early stages of its energy transition, rural Bangladesh has emerged as a global leader in Solar Home Systems (SHS). This way, the people of Bangladesh have asserted a form of "decentralized sovereignty" in asserting their right to energy without being controlled by global oil price fluctuations.

• **Lithuania:** Due to geopolitical energy threats (energy crisis in 2022), Lithuania transitioned rapidly to the "prosumer" model (consumers who produce their own energy). By 2024, Lithuania derived "a significant share of its energy growth" from rooftop solar energy. Lithuania moved away from the "import trap" and toward energy security.

RESOURCE CIRCULARITY & 100% RENEWABLE MIX 03

• **Bhutan:** The country is the closest example of the NRLG model. It is not only 100% renewable (hydropower), but it is also carbon negative. By considering rivers as the national trust instead of the resource to be depleted, Bhutan is exporting energy to India. The "Natural Rights" concept is used as a tool in regional geopolitics.

• **Uruguay:** Within nine years, Uruguay moved away from being an energy "importer" to being 98% reliant upon renewable energy (wind power, solar power, hydro power). It did so through the "sovereign shift" in policy where the "long-term survival of the nation" was prioritized over the "short-term interests" of the fossil fuel lobby.

04 LEGAL RECOGNITION OF THE RIGHTS OF NATURE

• **Ecuador:** The first country in the world to include the Rights of Nature (Pachamama) in its Constitution. It is the first country in the world to give the State or individuals the right "to sue" in the defense of ecosystems. The Rights of Nature in the context of energy is used to defend the "Natural Rights" of the environment to persist and regenerate in the face of energy development that threatens the environment.

• **Panama**: Panama was the first country in the world to pass a law in 2022 stating that "nature has the right to exist, persist, and regenerate" in the context of energy sovereignty. Panama requires that "any new energy infrastructure" be able to demonstrate "Net-Zero Ecosystem Loss" in alignment with the governance principles of your theory.

SOVEREIGNTY FOR THE VULNERABLE 05

• **V20 (Vulnerable Twenty) Group:** Through the Accra Marrakech Agenda, the 68 Vulnerable Twenty nations are pressing for a "Debt for Climate Swap." This is a practical application of energy sovereignty, where the nations are calling for a shift in the financial burden to build sovereign renewable energy infrastructure, away from "Brown Debt" or the cost of fossil fuel dependency.

• **Ethiopia & Kenya:** These two nations are using the vast geothermal and wind resources to attain near-total energy independence. By using the "Natural Wealth" of the Rift Valley, the LDCs are bypassing the LDC cycle of expensive and volatile energy imports from the "North."

COUNTRIES WHO ARE AHEAD IN ENSURING ENERGY SOVEREIGNTY

Country	Primary Indicator Met	Strategic Outcome
Denmark	Community Sovereignty	Social license and 80%+ renewable mix.
Bhutan	Rights of Nature / Carbon Negative	Diplomatic leverage and net-zero economy.
Uruguay	Energy Self-Sufficiency	Eradication of fossil fuel import dependency.
Ecuador	Constitutional Rights of Nature	Legal protection against exploitative energy.
Bangladesh	Decentralized Access	Resilient rural economies via solar mini-grids.

REA-WORLD IMPLEMENTATION MILESTONES OF ENERGY SOVEREIGNTY

Since we are both on the same page, it is evident that there is a clear gap between your theory of Natural Rights Led Governance (NRLG) and global reality, but for LDCs and countries vulnerable to climate change, it is clear that the "sovereignty" component is an ongoing battlefield against legacy systems.

To take this conversation to the next level, here is how we can map these real-world examples to the Sovereignty Milestones from your theory, illustrating the particular "leverage points" for LDCs:

MAPPING THEORY TO PRACTICE: THE NRLG LENS

1

THE "RIGHT OF REFUSAL" AS A LEGAL SHIELD

In your theory, it is clear that, as a component of Community Sovereignty, it is not just about participation but also about a defensive right.

- **Milestone:** Moving from "consultation" to "consent."
- **The Reality:** We see this at play in Ecuador, where the Rights of Nature are invoked to stop energy projects. For an LDC, this particular component of "Natural Right" to land is now a legal shield against exploitative foreign direct investment (FDI) in energy, which is not in line with energy needs.

DECENTRALIZATION: FROM "ACCESS" TO "CONTROL"

2

You've emphasized Decentralization as a path to avoid external shocks.

- **Milestone:** Replacing the "Top-Down" grid with "Bottom-Up" resilience.
- **The Reality:** Bangladesh's SHS (Solar Home Systems) program is the gold standard in Decentralization. This program demonstrates to the climate-vulnerable world that energy independence begins in the home. It's not just about powering the lights; it's about powering the lights without the cost and uncertainty of the international oil market.

3

FINANCIAL LIBERATION

This might be the most revolutionary part of your speech in relation to LDCs.

- **Milestone:** Converting "Ecosystem Debt" (incurred by the Global North) to "Sovereign Infrastructure" (developed in the Global South).
- **The Reality:** The Accra-Marrakech agenda of the V20 nations is your theory in a diplomatic package. By insisting on the diversion of debt servicing to renewable energy development, the V20 nations seek to liberate the LDCs from the "Import Trap" in which they're ensnared.

THE "NRLG" ADVANTAGE FOR LDCS

Milestone	Traditional Approach (Security)	NRLG Approach (Sovereignty)
Infrastructure	Large-scale, centralized, often foreign owned.	Community-scale, decentralized, locally-owned.
Financing	High-interest loans for fossil fuel imports.	Debt-swaps for indigenous renewable capital.
Legal Basis	Property rights and corporate contracts.	Natural Rights and Ecosystem Integrity.

THE NEXT FRONTIER: SCALING THE "SOVEREIGN MODEL"

The examples like Denmark or Uruguay are great, but they had the "luxury" of early-stage capital. For the LDCs you champion, the challenge is implementing this during a climate crisis.