

Forum: Youth Assembly

Issue: Assessing the implementation of methods to strengthen the enforcement of renewable energy sources

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Introduction

The global transition to renewable energy is critical in addressing climate change and achieving sustainable development, but its progress is often slowed by weak enforcement mechanisms. Renewable energy sources like solar, wind and hydro offer a cleaner alternative to fossil fuels, yet many nations struggle to meet their commitments due to inconsistent policy implementation, economic constraints and technological gaps. Strengthening the enforcement of renewable energy initiatives requires examining legal frameworks, economic incentives and technological solutions that can drive compliance and ensure effective adoption.

Countries like India, for instance, face significant challenges in scaling renewable energy infrastructure due to economic constraints and the reliance on coal to meet energy demands. Although India has ambitious targets for solar power, policy inconsistencies and grid integration issues hamper the full realisation of its potential. Similarly, Brazil, despite being a leader in hydropower, struggles with the political and economic volatility that can slow down the diversification of its renewable energy portfolio, particularly in expanding solar and wind capacities.

In Africa, nations like Kenya have made impressive strides in geothermal energy but lack the robust enforcement mechanisms needed to maintain and scale renewable projects. Policy enforcement often suffers due to limited financial resources, and the implementation of renewable projects is further complicated by

technological gaps and infrastructural weaknesses. Even in highly industrialised nations like the United States, political polarisation and shifting policy priorities have impeded long-term commitments to renewable energy. The rollback of environmental regulations during certain administrations highlights the fragility of enforcement mechanisms.

Strengthening the enforcement of renewable energy initiatives globally requires more than just policy announcements. It involves creating solid legal frameworks that hold governments and corporations accountable, economic incentives that make renewable projects viable, and technological investments that address gaps in infrastructure and energy storage. These strategies are crucial not only for achieving global energy transition goals but also for securing a sustainable future for the youth, who will bear the brunt of climate inaction. This agenda explores and identifies solutions that will ensure renewable energy policies worldwide, ensuring their enforcement is as robust as the targets themselves.

Definition of Key Terms

Renewable Energy Sources

Renewable energy comes from natural, constantly replenished sources like solar, wind, geothermal, hydroelectric, and biomass. These sources are cleaner alternatives to fossil fuels. However, many countries struggle to fully adopt them due to weak enforcement of renewable energy policies and economic or technological challenges.

Enforcement

Enforcement is the process of making sure that renewable energy policies are followed. It involves laws and regulations to meet energy goals, often including penalties for not complying. Many nations struggle with weak enforcement, which delays progress in transitioning to renewable energy.

Sustainability

Sustainability means meeting current needs without harming the ability of future generations to meet theirs. It requires balancing environmental, economic, and social factors. Weak enforcement of renewable energy policies hinders sustainability, as fossil fuels continue to dominate energy systems.

Energy Transition

Energy transition is the shift from fossil fuels to renewable energy. This requires major changes in infrastructure and policies. The lack of strong enforcement slows down this shift, prolonging the reliance on polluting energy sources.

Carbon Neutrality

Carbon neutrality means balancing carbon emissions with efforts to absorb or reduce them. Many countries have set carbon neutrality targets, but without strong enforcement, they struggle to reduce emissions and meet these goals.

Key Issues

Lack of Binding International Agreements

While global agreements such as the 'Paris Climate Accord' encourages countries to reduce carbon emissions and promote renewable energy, most lack strict enforcement mechanisms. Countries set their own targets and there are few legal consequences for failing to meet them. Global agreements like the Paris Climate Accord encourage emission reductions, but lack binding enforcement. Countries set their own targets with few legal consequences for falling short. For example, Australia and Canada pledged to cut emissions but still rely on coal due to economic pressures, while Brazil's deforestation weakens its renewable energy efforts despite its commitments. This leads to a disparity between ambitious pledges and the actual adoption of renewable energy.

Voluntary Commitments and Legal Mandates:

Many countries rely on voluntary commitments which are often undermined by changing political priorities or economic downturns. Without legally binding agreements, global coordination remains weak.

Economic and Political Barriers

High Initial Cost of Renewable Energy Infrastructure:

Transitioning to renewable energy requires significant investment due to the high costs of infrastructure like solar farms, wind turbines, and energy storage systems. These projects need advanced technology, skilled labour, and upgrades to existing power grids, which can be financially overwhelming, especially for developing nations that often lack access to necessary funds or loans. Politically, countries dependent on fossil fuels face pressure from industries that fear job losses and economic instability, deterring governments from fully committing to renewable energy. Short-term political priorities, election cycles, and the influence of fossil fuel industries further complicate the shift, as leaders may hesitate to invest in long-term sustainability when immediate economic benefits from traditional energy sources are at stake.

Fossil Fuel Subsidies:

Fossil fuel subsidies make traditional energy sources like coal, oil, and natural gas cheaper, which discourages investment in several clean energy technologies. Solar power, despite its decreasing costs, struggles to compete with the lower prices of fossil fuels, slowing the adoption of solar farms and rooftop installations. Wind energy, especially offshore wind farms, faces similar challenges, as the high initial costs make it less appealing compared to subsidised fossil fuel plants. Geothermal energy, which requires specialised technology and significant upfront investment, is often overlooked in favour of cheaper, subsidised fossil fuel projects. Additionally, green hydrogen, a clean fuel with great potential, is hindered by the availability of cheaper fossil-fuel-based hydrogen. Finally, energy storage

technologies, which are essential for stabilising renewable energy grids, face slower development as natural gas and coal-fired backup plants remain more cost-effective due to subsidies. These fossil fuel subsidies distort market competition, delaying the transition to clean energy.

Dependency on Fossil Fuels

For many countries, especially those with economies reliant on oil and coal exports, transitioning to renewable energy poses a significant economic threat.

Economic Reliance on Fossil Fuel Industries:

Countries like Saudi Arabia and Russia rely heavily on oil and gas revenues, creating resistance to renewable energy enforcement. Efforts to transition these economies will require careful planning to avoid any kind of destabilisation which could arise from falling oil revenues, leading to budget deficits and increased unemployment. This may result in social unrest and political backlash against renewable energy policies. Inadequate planning can also cause energy shortages, while declining oil exports can reduce geopolitical leverage. A well-planned transition strategy is essential to mitigate these risks.

Job Displacement:

Fossil fuel industries employ millions of people worldwide. The transition to renewable energy could result in significant job losses unless retraining economic diversification efforts are made.

Voluntary Commitments and Legal Mandates

Many countries rely on voluntary commitments that are non-binding pledges by countries to reduce emissions or promote renewable energy, such as Nationally Determined Contributions (NDCs). Their lack of mandatory adherence leads to inconsistent global efforts against climate change, which are often undermined by changing political priorities or economic downturns. Without legally binding agreements, global coordination remains weak.

Public Resistance and Social Acceptance

Public resistance to renewable energy projects stems from factors like NIMBYism, economic fears of job losses in fossil fuel industries, misinformation, cultural values, scepticism about effectiveness, and political ideology. These diverse perspectives significantly impact the success of renewable energy initiatives.

NIMBY (Not In My Backyard) Opposition:

Large-scale renewable projects like wind farms or solar parks often face local opposition due to perceived negative impacts on the environment or property values.

Cultural and Political Resistance:

In some regions, cultural factors and political ideologies may reject renewable energy initiatives, viewing them as foreign or unnecessary, particularly in areas with abundant fossil fuel resources.

Major Parties Involved and Their Views

United Nations (UN)

The UN, particularly through the UNFCCC, is a global advocate for renewable energy enforcement, driving international agreements like the Paris Accord that push countries to reduce emissions and transition to renewables. UN bodies like the UNDP work to support developing nations in adopting renewable technologies by providing financial and technical support, aligning these efforts with the Sustainable Development Goals, particularly SGD 7, which aims to ensure universal access to affordable, reliable and modern energy services.

European Union (EU)

The EU is a leader in renewable energy enforcement, spearheaded by its Green Deal, which aims for climate neutrality by 2050. The Renewable Energy Directive mandates legally binding targets for member states, compelling them to increase their

renewable energy share. The EU also invests heavily in renewable energy research and infrastructure, with enforcement mechanisms that hold member states accountable for meeting their goals, showcasing the EU's global leadership in sustainable energy transitions.

Oil-Exporting Countries (Saudi Arabia, Russia, etc.)

Countries that are heavily reliant on fossil fuels exports, like Saudi Arabia, Russia and Venezuela are among the most resistant to global renewable energy enforcement. These nations depend on oil and gas revenues for a significant portion of their GDP and government budgets, making a transition to renewable energy challenging for them:

Resistance to Enforcement:

Such countries frequently lobby against international agreements that would enforce rapid shifts to renewable energy, arguing for a more gradual transition to protect their economies. Their stance makes global enforcement of renewable energy policies a difficult task as they have significant influence in energy markets and geopolitics.

Non-Governmental Organisations (NGOs)

Non-governmental organisations play a huge role in advocating for stronger renewable energy enforcement, raising awareness, influencing policy and holding governments accountable:

Greenpeace:

Greenpeace campaigns globally for the reduction of fossil fuel use and the adoption of renewable energy. Through lobbying, protests and public campaigns, Greenpeace pressures governments and corporations around the world to enforce renewable energy policies more rigorously.

World Wildlife Fund (WWF):

WWF promotes sustainable development, including the transition to renewable energy. They work with governments and businesses to promote renewable energy enforcement through policy advocacy, technical guidance and investment in sustainable energy projects.

Environmental Defense Fund (EDF):

EDF works on market-based solutions to environmental issues, focusing on reducing carbon emissions through renewable energy investments. They often collaborate with governments and corporations to improve enforcement mechanisms and create favourable conditions for renewable energy adoption.

Development of Issue/Timeline

Date	Event	Outcome
October 1973	Oil Crisis	The Arab oil embargo caused a spike in the oil prices, exposing the vulnerability of countries that rely on fossil fuels. This led to the increased global interest in energy diversification, including the development of renewable energy sources like solar and wind. Governments started exploring energy alternatives to reduce dependence on foreign oil, marking a turning point in energy policies.

<p>June 1992</p>	<p>United Nations Earth Summit in Rio de Janeiro</p>	<p>The summit resulted in ‘Agenda 21,’ a comprehensive action plan for sustainable development. Renewable energy was highlighted as a key component in reducing carbon emissions and spreading environmental sustainability. This event encouraged countries to integrate renewable energy into national policies and initiated global cooperation toward addressing climate change through greener energy solutions.</p>
<p>16th August, 2022</p>	<p>US Inflation Reduction Act</p>	<p>The ‘Inflation Reduction Act’ allocated 369 billion dollars toward renewable energy and climate initiatives. It introduced tax credits and financial incentives for renewable energy projects, including solar and wind, as well as electric vehicle production.</p>

Previous Attempts to Solve the Issue

Paris Agreement (2015)

The Paris Agreement is a legally binding international treaty on climate change. This international framework aims at reducing carbon emissions, but lacks stringent enforcement.

The Kyoto Protocol (1997)

The Kyoto Protocol was one of the earliest global efforts to combat climate change by setting legally binding emissions reduction targets for developed countries. Renewable energy was identified as a key strategy to achieve these reductions. However, enforcement was uneven, with several major countries, including the US, failing to ratify the treaty. The lack of robust enforcement mechanisms weakened its impact.

Green Climate Fund (GCF)

Established under the UNFCCC, the Green Climate Fund aims to provide financial support to developing countries for climate projects, including renewable energy. However, delays in funding disbursement and challenges in project implementation have hampered its effectiveness in enforcing a widespread shift to renewables.

Possible Solutions

Strengthening Global Enforcement Mechanisms

Binding Targets: One potential solution is to shift from voluntary commitments (as in the Paris Agreement) to legally binding international renewable energy targets with clear penalties for non-compliance. Countries would be held accountable through global watchdog agencies.

International Renewable Energy Tribunal: Establishing an independent body to oversee enforcement could help ensure countries follow through on their renewable

energy commitments. This tribunal could impose sanctions on countries failing to meet their renewable energy targets.

Enhancing National-Level Policy Frameworks

Subsidies and Tax Incentives: Governments could strengthen enforcement by offering more robust subsidies for renewable energy projects and tax incentives for businesses and households adopting renewable technologies. These incentives would encourage faster adoption while penalising heavy reliance on fossil fuels.

Mandatory Renewable Energy Portfolios: Countries could implement mandatory Renewable Portfolio Standards (RPS), which would require energy companies to meet specific renewable energy quotas. These portfolios should be regularly updated with increasingly ambitious targets.

Technology Transfer and Capacity Building

Support for Developing Nations: A major barrier to renewable energy adoption in developing countries is the lack of technology and infrastructure. Developed nations and international organisations could enforce the transfer of renewable technologies to these countries, coupled with capacity-building programmes to help them implement and enforce renewable energy strategies.

Green Financing Mechanisms: Expanding access to green finance would allow developing countries to fund large-scale renewable energy projects. Strengthening enforcement through financial institutions, like the Green Climate Fund would be vital to this solution.

Public-Private Partnerships

Governments can collaborate with private corporations to enforce renewable energy goals. For example, large corporations could be required to meet sustainability targets as a part of their corporate social responsibility initiatives which could be legally enforced and monitored.

Regional Cooperation

Regional initiatives such as cross-border renewable energy grids (like the North Sea Wind Power Hub) could help enforce renewable energy goals by integrating markets and improving energy efficiency. Cooperation between countries would allow for shared investments and joint enforcement of renewable energy targets.

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