

Energy Insecurity in the Developing World

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As the first delegation of students from Washington University in St. Louis, WUSICE strove to learn as much as possible while working on a meaningful, concrete project that could potentially help stakeholders in the future. Hence, we chose to focus our efforts on one of the most overlooked yet most troubling climate change problems: energy insecurity. As Ban Ki-Moon, Secretary General of the United Nations, wrote in a New York Times op-ed, “one in five people on the planet lacks access to electricity. Twice as many, almost 3 billion, use wood, coal, charcoal, or animal waste to cook meals and heat homes, exposing themselves and their families to harmful smoke and fumes. This energy poverty is devastating to human development.”

While in Durban, WUSICE delegates interviewed over 20 conference attendees, including several official international delegates and many NGO representatives. WUSICE representatives spoke with individuals from a wide range of areas stretching from Argentina to China, each case describing unique energy accessibility problems. In conversing with people who have encountered these living conditions first hand, WUSICE aimed to identify the key drivers of energy insecurity in developing countries. We found was a diverse set of problems unique to each area with three common themes:

1. Structural barriers to energy insecurity run rampant in many of our interviewees' countries. Such problems include but are not limited to a physically decaying, inadequate, or nonexistent infrastructure for transporting energy; a lack of available options in energy sources at the local and national level; and inadequate funding for exploring alternative energy sources. As power dynamics within nations and population densities shift, updating existing and building new energy distribution systems becomes increasingly difficult yet increasingly necessary.

Interviewees from around the globe expressed serious concerns for inadequate funding for various needs such as expanding and updating the grid system to keep pace with demand, implementing renewable energy projects, and making expensive energy more affordable to citizens. Spokespeople from the Caribbean, Nepal, Tanzania, and Madagascar all mentioned the need for increased funding. Somewhat wealthier nations such as Mexico faced difficulties similar to those seen in the United States of incorporating household renewable energy sources into the grid system to sustain greater demand. Other nations such as Somalia and South Africa simply lacked the infrastructure in particular regions or entirely.

2. Political issues frequently disrupt or prevent citizens from having adequate access to energy, among other basic services. Our interviewees revealed a broad range of political concerns including political instability, inadequate policy hampering broad energy access, and corrupt practices that deprive the less

politically influential of consistent energy access. The extent to which well-intentioned governments were able to assert political control to implement and enforce broad energy access over a country's land area and private community was repeatedly cited as a barrier to advancement in energy availability, particularly to the rural and poor members of society.

A major theme among our interviewees was the tension between public and private control of energy resources. Some, including those interviewed from the Caribbean, chronicled the development of closed-contract energy cartels, brought about by IMF and World Bank stipulations made in the 1980s, that hindered the development of a diverse energy sector. Others, like the member of the Somali parliament, spoke of capacity for energy sector development destroyed or co-opted in civil war. Still others, such as an interviewee from Mexico, shared stories of centralized energy distribution laws hindering widespread innovation of the private sector in order to facilitate a transition to renewable energy use.

3. Social stigmas against racial, cultural, religious, and socio-economic groups in society also prevented the dissemination of information on "best practices" in energy-use and reduced the benefit of external aid and technology adoptions. Governments in many of the interviewees' countries were of a majority race, religion, or of the highest socio-economic class and showed preference to their corresponding racial, religious, or socio-economic constituencies. Alternatively, strong social structures were also identified as having potential as an alternate information and technology dissemination network if the traditional routes through governmental and non-governmental organizations proved unreliable.

An overwhelming number of interviewees reported social groups being denied or delayed access to available types of energy, though the cited reasons varied. The Haitian, AOISIS, and Malagasy representatives described problems "endemic" to the country, including the lack of general knowledge, lack of access to technology, and diverse energy interests.

These findings are clearly not universally applicable; they are representative of the various regions from which our interviewees hail and can be extrapolated to represent some of the challenges many developing nations face in attempts to achieve widespread energy accessibility. While WUSICE's research merely skims the surface of barriers to energy access, the problems described above demonstrate the complexity of energy security issues. There is no easy fix to these deeply embedded problems, and finding solutions will take interdisciplinary efforts. WUSICE hopes to be a part of these efforts as climate change continues to prove as one of the most pressing global issues of the 21st century.

Interviewees:

1. H.E. Ahmed Mohamed Imaml, Somali Republic
2. Ayanda Nakedi, Senior General Manager, ESKOM
3. Monica Kagya and Charles Meshak, Tanzania Natural Resource Forum
4. Jean Roget, Madagascar
5. Jacqueline Seeley, Mauritania Delegation
6. Ron Beniof, NREL, United States
7. Carlos Fuller, International Relations and Public Liason, CARICOM
8. Soud Jumah, CARE REDD+, Zanzibar
9. Mr. Maosheng Duan, CDM EB Vice President, China
10. Mr. Manjeet Dhakal, Nepal Delegate
11. He Jiankun, President of Institute of Environments, and Zhang Xiliang, Tsinghua University, China
12. Hon. Hassan Ibrahim, Transitional Federal Parliament of Somalia
13. Sra. Monica Casanovas, Network of Regional Governments for Sustainable Development, Argentina
14. Joseph McGann, Project Coordinator, CARICOM
15. Dr. Kenrick Leslie, Executive Director, CCCCC
16. Dr. Mary Bynoe, Energy Advisor, CCCCC
17. Sandra Guzman Luna, CEMDA, Mexico
18. Silvia Valeis, AOSIS
19. Dennis Mairena Arauz, CADPI, Nicaragua
20. Sandile Mshengu, South Africa