

2nd BILMUN
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Study Guide



UNDP

Increasing access to electricity in light of global inequality
and climate change Introduction

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Introduction to the Committee

The United Nations Development Program (UNDP), founded in 1965, is the UN's global development network. It is an executive board within the General Assembly, and its administrator has the role of an Under Secretary-General, and the position is often known as the third highest-ranking official in the United Nations system. It operates in 177 countries, working with national governments to design and implement solutions to global and national development challenges.

The 2018-2021 Strategic Plan outlines three development contexts to reflect the diverse nature of the world's needs :

1. Eradicating poverty in all its forms and dimensions
2. Accelerating structural transformations
3. Building resilience to shocks and crises

In achieving these goals, UNDP's primary approach is based on coordination and cooperation. The UNDP Administrator is the Vice-Chair of the broader UN Sustainable Development Group, a forum for joint policy development that brings together 40 separate UN funds, programs, and specialised agencies.

Furthermore, the UNDP's mandate is directed by the 2030 Sustainable Development Goals. These seventeen interconnected goals and one hundred and sixty-nine targets, established by Resolution A/RES/70/1 (2015), guide the UNDP's policies and funding.

In pursuing the mission of 'leaving no one behind,' the UNDP engages all stakeholders through its Mainstreaming, Acceleration, and Policy Support (MAPS) framework.



Introduction

“Development is not possible without energy, and sustainable development is not possible without sustainable energy.”

– Former UN Secretary-General Ban Ki-moon

Access to sustainable energy is one of the world's key policy challenges in the coming years. Energy is an indispensable tool in alleviating poverty by stimulating industrialisation, creating jobs, and providing economic growth. Modern society is entirely dependent on electrical energy for communication, industry, and government. Yet there are more than a billion people in the world without access to any kind of electricity, and 2.9 billion use solid fuels for cooking, warmth, and light. The trend towards global electrification punishes these people even more as they are left further and further behind, unable to catch up in meaningful ways.

The energy challenges faced by developing countries are staggering. With unreliable energy systems where nothing is certain, domestic industry is disrupted by daily power cuts, reducing income and increasing expenses. Dependence on imported fossil fuels leave their already weak institutions and economies vulnerable to global politics and supply shocks. In many of these countries, electricity subsidies exact a heavy toll in terms of opportunity cost. As their populations grow and incomes rise, their energy requirements will rise exponentially. Without well-structured policies to avoid worstcase possibilities, it is almost inevitable that developing countries will forever stay poor.

UNDP's work in sustainable energy focuses on three interrelated aspects: social, economic, and environmental. UNDP's approach to these challenges is structured around the following three action areas:

- **Energy Access:** The need for electrical, thermal and mechanical energy for households, small and medium-sized businesses and communities, with an emphasis on clean energy for the poor.
- **Energy Efficiency.** The promotion of energy efficiency across sectors and the creation of strong market demand and incentives for public and private investment.
- **Renewable Energy:** The increased adoption of sustainable on- and off-grid renewable energy technologies and delivery services and de-risking investment



Timeline of Events

1996-2009: The Global Rural Electrification Programme (PERG) in Morocco applied 2 modes of electrification - connection to the main network or decentralized solar electrification, in catching the late rural electrification after its rapid growing disparities between major cities and rural areas.

1998: The Chinese government introduced actions on upgrading power grids in rural areas and power facilities in areas without access to power.

1999: The Integrated National Electrification Programme (INEP) by the Department of Energy in South Africa, responsible for planning, project management and funding the bulk infrastructure, grid and non-grid new connections for households in order to increase accessibility to electricity.

1999: The Renewable Energies Project in Rural Markets (PERMER) was approved in Argentina. From 2008 to 2014, PERMER I increased access to electricity in rural areas and helped to create networks of rural electrification. From 2015 onwards, PERMER II was implemented where complementary financing had been provided by the government to improve infrastructure for universal access to electricity.

2003: The "Light for All Program" was launched by the Brazilian government as an attempt to encourage socioeconomic development and poverty reduction. The aim of the program was to provide free access to electricity infrastructure for 2 million households.

2004: The World Bank provided financial support for the implementation of the Access Program Electricity Service in Rural Area (PASER) in Senegal. This programme was designed to involve the private sector in rural electrification concessions.

2011: The Global Electricity Initiative was established during the UNFCCC Conference, where clean electricity was agreed as the fundamental solution to the challenge of climate change.

2013: The 3-year Action Plan was launched by the Chinese National Energy

Administration in an attempt to eliminate population without electricity access



2015: 193 Member States of the United Nations agreed as part of the Sustainable Development Goals on SDG 7.

2015-16: Over \$8 billion of financing commitments for residential uses of electricity were made in the 20 countries with the highest access deficit.

2017: 89% of the world's population had access to electricity, falling from 1.2 billion in 2010 to 840 million in 2017

2017: Off-grid electrification solutions served 14% of the combined population of Bangladesh, Cambodia, Ethiopia, Kenya, Myanmar, and Rwanda.

2018: The High-Level Political Forum called upon governments to close the accessibility gap of electricity by harnessing the potential of the decentralized renewable energy solutions .

Discussion

Disparities in the access of reliable energy services

Ensuring access to affordable, clean and reliable energy is at the core of the United Nations' Sustainable Development Goals (SDG). The International Energy Agency (IEA) developed a set of data showing that 2017 was the first year where fewer than one billion people on earth do not have access to power. Since the 21st Century, most of the expansion of electricity grids occurred in Asia where over 900 million people gained access. For example, access to electricity in Indonesia, went up from 50 percent in 2000 to around 95 percent in 2019; the electrification rate in Bangladesh rose even more dramatically from only 20 percent in 2000 to 80 percent.

Despite the wide expansion of electricity access since the 21st Century, there are still major challenges in electrification across sub-Saharan Africa. It was estimated by the IEA that by 2030, around 670 million will still be kept in the dark, of which 90 percent of them are in sub-Saharan Africa.



The threat of climate change and dwindling energy resources

It is not unknown that there is a scientific consensus that “the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant.” As emphasised by the ‘STERN REVIEW on Climate Change’, this global threat demands an urgent global response. There are lots of evidence around the world pointing to the impacts of climate change which is dramatically affecting people’s livelihood, and such effects shall not be ignored.

As illustrated in the graph below showing the ‘Global mean temperature from land and sea compared to C21 average’, global mean temperature has been increasing dramatically since the 1980s. The costs of inaction to global warming are of damage from more frequent extreme weather events - storms, heatwaves, flooding, drought, rising sea levels, along with other changing environmental conditions. These could lead to loss of human lives, destroyed assets, crop failures, forced migration and species loss. Two recent climatic disasters include Hurricane Michael in Florida (October 2018), which left unimaginable destruction; and the Paradise Fire in California (November 2018) of which the wildfire left the town in ruins. Without proper research and developments, along with international negotiations on the use of non-carbon energy supply, the impacts of climate change is likely to exacerbate, hence, leading to increased adaptation costs on sea defence, air-conditioning, agriculture, infrastructure.

Whilst it was found that electricity is one of the leading causes of global carbon emissions, the IEA also found that by having a 100 percent electrification rate, where everyone around the world has access to reliable electricity resources, emissions of greenhouse gases could be reduced. This is because burning biomass as a traditional way to access fuel, releases methane, which is a potent greenhouse gas that could potentially destroy forests that would otherwise store carbon. Moreover, electrification allows for fuel improvements, encouraging nations to switch from fossil fuels to renewable resources. Hence, as grids get greener, carbon emissions also reduce.



Global Inequality

Poverty is a fundamental reality of developing countries. It refers to an individual or community's lack of access to basic human needs and manifests itself as the inability to achieve a minimum baseline of what is needed for material well-being. In the context of

access to energy services, which is often referred to as fuel poverty, can be defined as 'the absence of sufficient choice in accessing adequate, affordable, reliable, highquality, safe, and environmentally benign energy services to support economic and human development.' Access to energy resources and services is not in itself a driver of development, but it enables the provision of basic needs and productive activities. Hence, reliable access to affordable, safe, and sustainable energy is a necessary condition for sustainable development.

Energy is more expensive for poor households and countries. Rural families not connected to the national grid often cut down trees to burn for cooking, warmth, and light. The time and energy spent chopping firewood could be spent on more productive activities if they had access to higher-quality energy resources such as solar energy or LPG. Likewise, instead of investing money in infrastructure, many developing countries import fossil fuels for use in their old, inefficient power plants.

There are three key reasons to why the lack of access to electricity is a concern which requires urgent international responses. Firstly, from a health and well-being perspective, living at low temperatures as a result of poor or the lack of access to electricity is likely to contribute to the excess incidents of ill-health and winter deaths each year. This could potentially increase the demands on national healthcare services, leading to problems of social isolation; as well as adversely affecting the productivity of the workforce. Secondly, from the perspective of reducing greenhouse gas emissions and avoiding the impacts of climate change, energy inefficiency of the home of those living in fuel poverty acts as a barrier to the implementation of policies to mitigate climate change. This is due to the fact that less economically developed countries are least likely to be able to afford the use of renewable energy resources. Hence, adding to the emission of greenhouse gases. Last of all, fuel poverty and the lack of access to energy add to the burden of low-income households. This is because fuel costs are largely outside the control of households and such fuel costs often take up a large proportion of the poor household incomes, this reduces expenses on health, food, sanitary etc. and hence, potentially leading to multiple-dimensions of deprivation.



Bloc Positions

GEF and UNDP Relationship:

The UNDP currently implements 28 energy access projects in 25 countries worldwide, mobilising a total of \$76 million of Global Environment Facility (GEF) resources and leveraging another \$440 million in shared financing. The Global Environment Facility was established in 1992 to help tackle the world's environmental problems and has 4500 projects in 170 countries worldwide. One purpose of the GEF was to help the two major development agencies, UNDP and the World Bank, to mainstream environmental concerns into their programming. The three original implementing agencies of GEF projects were UNDP, UNEP and the World Bank, which still dominate the partnership even though other agencies were later added.

Since its launch, the availability of GEF funding has been the most important driving force determining where, how and when UNDP country-level environment and energy work has been undertaken. This was confirmed by all available information sources, including country case studies in the August 2008 evaluation of the role and contribution report of the UNDP in environment and energy. Of all countries studied 71 to 99 percent were supported by GEF resources (except for China where GEF funding covered only 67 percent). Other funding came in certain cases through the Montreal Protocol, for example in China. In many cases the UNDP has secured or helped mobilize significant financing from other partners to support activities.

Insufficient efforts have been made by UNDP senior management at a global level to encourage staff to identify the key differences between UNDP and GEF priorities and to alert donor partners of these separations. Staff have been encouraged to seek whatever funding is available and make the most of it, which they have generally done.

Regional variations:

Most European countries favor the utilization of renewable energy over other forms considering the variety of aspects that nations could benefit from moving their energy market and industry to renewable systems. Moreover, using local industries of renewable energy can also save considerable sum of money. Today, usage of renewable energy is considered a main step to access regional development by harming less but producing more. Currently, renewable energy types starting with the solar, wind, hydroelectric and natural gas are highly supported by the international community and countries are taking actions to further develop their industries in light of climate change.

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International Institutions:

The relevance of access to electricity in the principal UNDP mission of poverty reduction seems overwhelmingly clear. A lack of access to modern energy services hampers healthcare, gender equality, education, and poverty alleviation. The negative consequences of the deteriorating global environmental situation on the poorest countries and communities is shown by international bodies such as the International Panel on Climate Change and the Millennium Ecosystem Assessment. UNDP programs in the environment have made significant contributions to international efforts. Programs in environment and energy have expanded significantly since the 1990s, and UNDP is now among the leading organizations working in these areas.

However, various sources of international funding could be accessed to help finance more ambitious goals. These include ODA and other donor funding targeted at the achievement of the Millennium Development Goals; and climate-related finance, which under the Copenhagen Accord is intended to increase to \$100 billion a year by 2020. Existing energy programs and funds, such as the Renewable Energy and Energy Efficiency Fund (REEF) or the Climate Investment Funds of the World Bank can be utilized to administer and distribute finance but will need to be scaled up significantly. This will require governance structures that better balance the needs of donor countries for accountability and the needs of recipient countries for a stronger voice in how the funding is used.

Conclusion

Environment and energy programs in the UNDP have relied predominantly on outside funding. UNDP responsiveness to national priorities in energy has been varied and largely dependent upon the type of countries involved. UNDP programs in LEDCs and small island developing states tend to be dominated by support for the preparation of plans and strategies. Those efforts vary in quality, rarely providing the best guide for future investments and do not always appear relevant to the most pressing needs of a given country. Countries viewed many such plans as worthwhile only as a step towards further international funding, little of which has materialized. There are indications of a better fit between national priorities in environment and energy with the services provided by UNDP in the larger, higher income countries where government environment programs can draw on additional resources.



Key Issues

1. How could the UNDP aid Less Economically Developed Countries (LEDC) in increasing the access to reliable electricity resources?
2. How can the UNDP encourage a more effective leverage of the existing technologies in the provision and use of renewable energy resources?
3. What are the key barriers to SDG 7 and the increasing electricity access, especially in sub-Saharan Africa region, along with other less developed regions?
4. How can the international community promote electrification without discounting on climate change and global inequality?
5. Do domestic politics and gender gap have a role to play in the access to electricity globally?



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