POLICY BRIEF

The Transition to Renewable Energy in Sub-Saharan Africa

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Abstract

- While sub-Saharan Africa (SSA) is not responsible for climate degradation, it suffers its adverse natural and socioeconomic effects.
- Nonetheless, sub-Saharan Africa has a role to play in reducing greenhouse gas emissions, thus contributing to reducing global warming.
- It is possible for SSA countries to increase their energy consumption in order to meet the needs of their economies, without contributing to global climate degradation, provided that they transition to renewable energy use.
- But that requires changing production technologies and consumption patterns and using adapted infrastructure.

Background and statement of the problem

The issue and its seriousness

The energy supplied throughout the world from fossil fuels contributes to about 60% of the greenhouse gas emissions responsible for climate change.

A glance at the different regions of Africa gives a clear idea of climate change damage to the continent:

Central Africa: Reduction and deficits in the amount of rainfall are expected for the 21st century

South-Eastern Africa: Heavy rainfall and the ensuing flooding, in addition to river flooding, will be compounded by strong winds from tropical cyclones.

Southern and West Africa: There will be an increase in heavy rainfall and the ensuing flooding, but also in aridity, agricultural, and ecological droughts associated with fire weather, arising from a temperature rise of over 1.5°C.

The type of action needed

Renewable energy technologies could be deployed more quickly if bold energy policies reduced the effects of fossil fuels and facilitated the financing of renewable energy projects.

The type of action needed

All sub-Saharan African countries must build their economic policies around growth that is based on a flexible energy transition that does not disrupt economic structures.

Results and policy implications

Countries with a low use of renewable energy
Group A
Mauritania, Botswana, Cameroon, Lesotho, Cape Verde, Guinea, Congo, Djibouti, Benin, Guinea-Bissau, Zimbabwe, Comoros, Burundi.

Countries with a fairly low use of renewable energy
Group B
Burkina Faso, Mali, Uganda, Gambia, Angola, Central African Republic, Sierra Leone, Equatorial Guinea, Nigeria, Liberia, Congo DRC.

Countries with a fairly high use of renewable energy
Group C
Togo, Senegal, Tanzania, Mozambique, Kenya, and Zambia.

Countries with a high use of renewable energy
Group D
Madagascar, Gabon, Chad, South Africa, Eritrea, South Sudan, Somalia, Ethiopia, Niger, Côte d'Ivoire, and Sudan.

Types of renewable energy that should be developed

Group A Countries

Geothermal energy - Solar energy - Wind energy - Bioenergy

Group B Countries

Hydroelectric energy - Solar energy - Wind energy – Bioenergy

Group C Countries

Geothermal energy - Solar energy - Wind energy - Bioenergy

Groupe D Countries

Hydroelectric energy - Solar energy - Wind energy - Bioenergy

Specific policies

1) Pricing of pollution	4) Imposition of energy-efficiency standards in industrial production
2) Subsidies, exemptions, and tax credits for the use of renewable energy sources	5) Funding the purchase of electricity from renewable energy sources
3) Elimination of subsidies to fossil-fuel-intensive sectors	6) Sustainable public procurement

Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

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