



# ENERGIZED

## Policy innovations to power the transformation of Africa's agriculture and food system

| Country         | Institutional innovations   | Policy innovations   | Programmatic interventions   |
|-----------------|---|--|--|
| <b>Ethiopia</b> | <ul style="list-style-type: none"> <li>Ministry of Environment, Forest and Climate Change (MEFCC) established in 2013 to implement Climate Resilient Green Economy (CRGE) strategy.</li> <li>MEFCC partnered with Ministry of Finance and Economic Cooperation (MFEC) to establish a national climate fund.</li> <li>Ethiopia Rural Energy Development and Promotion Centre formulates rural energy policy; financed by Rural Electrification Fund (REF) at MFEC.               <ul style="list-style-type: none"> <li>REF subsidizes up to 85% of electrification, and up to 95% for renewable energy sources costs</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>Agriculture Development Led Industrialization (ADLI) strategy since 1991.</li> <li>Electrification as a core element of agricultural transformation, included in each national development plan.</li> <li>Preparing for the Transition to a Green Economy: launch of the CRGE strategy in 2011.</li> <li>National Electrification Plan 2017 set the target for universal access to electricity by 2025.</li> <li>National Electrification Program 2.0. focuses on providing integrated access with grid and off-grid solutions through public private partnerships (PPPs).</li> </ul>   | <ul style="list-style-type: none"> <li>Integrating electricity supply with other services to enhance productive capacity.</li> <li>Agricultural Commercialization Clusters and Integrated Agro-Industrial Parks for focused development and investments.</li> <li>Leveraging different energy sources to broaden access under Universal Electrification Access Program with               <ul style="list-style-type: none"> <li>Energy-saving biomass ovens,</li> <li>Energy saving lightbulbs, and</li> <li>Ethanol production</li> </ul> </li> <li>Improving energy and cost efficiency</li> <li>Distribution of 9 million biomass stoves</li> <li>Integrated grid and off-grid electricity access</li> <li>PPPs</li> </ul> |
| <b>Ghana</b>    | <ul style="list-style-type: none"> <li>Ministry of Energy's (MoE) budget is supplemented by financial support from Ministry of Finance and Economic Planning.</li> <li>Regulatory capacities for private sector engagement: liberalization in 1994, regulated by Energy Commission.</li> <li>Rural Energy Directorate at the MoE to support delivery of Ghana Energy Development and Access Project.</li> <li>Advance research and technical capabilities via interdisciplinary research programs for the development of Ghana's energy sector.</li> </ul>  | <ul style="list-style-type: none"> <li>Clear policies reflecting long-term planning with clear targets, and smart, bottom-up implementation.</li> <li>Liberalization for private sector investment and energy diversification.</li> <li>Initiating a transition towards renewables via Renewable Energy Act (2011): provides the fiscal and regulatory framework to institute a licensing regime for private sector producers and created a feed-in tariff.</li> <li>Leverage oil and gas income to improve national infrastructure, increase agricultural productivity, and accelerate agricultural modernization.</li> </ul> | <ul style="list-style-type: none"> <li>Drive for Universal Access:               <ul style="list-style-type: none"> <li>National Electrification Scheme (NES) established (1989).</li> <li>District Capitals Electrification Programme connected 110 district capitals and towns/villages with a population greater than 500 to the grid.</li> <li>Self-Help Electrification Programme connected communities within a 20-km radius of a national grid connection, with a minimum of 30% wired households.</li> </ul> </li> <li>Energy for homes, farms and processing in rural areas through the Ghana Energy Development and Access.</li> </ul>   |
| <b>Morocco</b>  | <ul style="list-style-type: none"> <li>Creation of the National Office of Electricity and Drinking Water (ONEE) promoting sustainable development of water and electricity.</li> <li>The National Agency for Energy Efficiency (AMEE) established in 2016.</li> <li>The Moroccan Agency for Solar Energy (MASEN) established in 2010 also promoting training and capacity building, local development, and industrial integration to gradually build a national renewable energy industry.</li> <li>The Institute for Research into Solar and Renewable Energies (IRESEN) created in 2011 hosting the Green Energy Park dedicated to solar technologies.</li> <li>The National Authority for Electricity Regulation (ANRE) created in 2018 to organize the open and competitive segment of the electricity sector and regulate access to networks, set the tariffs for the use of transmission and medium-voltage grids, and ensure the efficient functioning of the market.</li> </ul> | <ul style="list-style-type: none"> <li>Drive for Energy Efficiency under the National Energy Efficiency strategy 2014–2030 to reduce final energy consumption by 25% in 2030.</li> <li>Creating a Private Sector Market for Renewables Growth by involving private sector through strong PPPs, and permitting Moroccan private companies to produce electricity from renewable sources.</li> </ul>   | <ul style="list-style-type: none"> <li>Strong emphasis on locally adapted solutions, and prioritization of renewable energy through rural electrification program.</li> <li>Fiscal incentives for renewables at scale through subsidies of up to 50% of installation cost for solar panels through the Energy Development Fund within National Solar Irrigation Program (2013).</li> </ul>   |



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| <b>Senegal</b>      | <ul style="list-style-type: none"> <li>The Regulatory Commission of the Electricity Sector (CRSE) established in 1998 to promote competition and private sector participation at all stages of the electricity supply chain and protecting consumer rights.</li> <li>The Senegalese Rural Electrification Agency (ASER) created in 1999 to administer rural electrification policies and provide technical and financial support to businesses and individuals involved in rural electrification initiatives.</li> <li>The Agency for Saving and Control of Energy (AEME) created in 2011 to promote sustainable energy consumption and implement the national policy of controlling energy resources.</li> <li>The National Agency for Renewable Energies (ANER) established in 2013 to promote the use of renewable energies in all sectors of the economy.</li> </ul>   | <ul style="list-style-type: none"> <li>The successive "Letters of Energy Sector Development Policy" (LPDSE) formulated in 1997, 2003, 2008 and 2012.</li> <li>Crowding in Independent Power Producers (IPPs) through the liberalization of the energy sector, allowing IPPs to produce electricity.</li> </ul>   | <ul style="list-style-type: none"> <li>Prioritizing electricity access in rural areas under the Rural Electrification Action Plan (PASER) 2002-2022.</li> <li>The Senegal National Domestic Biogas Program (PNBSN) initiated in 2010.</li> </ul>   |
| <b>South Africa</b> | <ul style="list-style-type: none"> <li>Creation of a dedicated office to manage the public procurement program for IPP projects in the Ministry of Energy.</li> <li>Creation the Central Energy Fund (CEF) in 1977 playing a central role in ensuring South Africa's energy security.</li> <li>The National Energy Regulator of South Africa (NERSA) created in 2004 to regulate the electricity, gas, and petroleum pipeline industries.</li> <li>The National Nuclear Regulator (NNR) and the Nuclear Energy Corporation of South Africa (NECSA) created in 1999 to monitor and enforce regulatory safety standards for safe operating conditions and for the development and use of nuclear technologies.</li> <li>The National Radioactive Waste Disposal Institute (NRWDI) in 2009 to inform the public on all aspects of radioactive waste management.</li> <li>The South African National Energy Development Institute (SANEDI) created in 2011 to oversee R&amp;D in the energy sector and the promotion of green, low-carbon energy and energy efficiency.</li> </ul> | <ul style="list-style-type: none"> <li>The White Paper on Energy Policy of 1998, for access to affordable energy services for disadvantaged households, small businesses, farms and community services.</li> <li>The White Paper on Renewable Energy of 2004 to increase the share of renewable energy in the energy mix.</li> <li>The Integrated Resource Plan (IRP) 2010-2030, a long-term plan for building new electricity generation capacities.</li> <li>Introduction of pro-poor policies from 2000 including free basic electricity tariff, fully subsidizing 50kWh if a household consumes less than 450kWh</li> <li>Free Basic Alternative Energy in Rural Areas Policy, and the subsidy through an 'Inclining Block Tariff System'.</li> <li>The New Household Electrification Strategy (NHES) of 2013 providing 300,000 rural households with off-grid electrification.</li> </ul> | <ul style="list-style-type: none"> <li>Bridging the access gap for poor and rural communities.</li> <li>The Integrated National Electrification Programme (INEP) started in 2000 to merge off-grid solutions and alternative energy sources into the National Electrification program.</li> <li>Diversify energy supply through the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) started in 2011.</li> </ul>   |
| <b>Zambia</b>       | <ul style="list-style-type: none"> <li>Zambia Rural Electrification Authority (2003) to implement Rural Electrification Master Plan and administer the Rural Electrification Fund. <ul style="list-style-type: none"> <li>Funded by national budget, electricity levy, loans and donations.</li> </ul> </li> <li>Energy Regulatory Board to monitor reliability and quality of service provided by national and independent providers.</li> <li>Office for Promoting Private Power Investment to facilitate private sector investments in energy.</li> </ul>   | <ul style="list-style-type: none"> <li>Fiscal incentives to boost and diversify energy supply</li> <li>Cluster-based approach to agricultural electrification: 11 farm blocks benefiting from basic infrastructure such as trunk roads, bridges, electricity, dams, schools, and health centers.</li> <li>National Agricultural Investment Plan: <ul style="list-style-type: none"> <li>Increase the percentage of farmers with access to electricity.</li> <li>Introduce 1,900 renewable energy-based irrigation pumps.</li> <li>Transition to energy-efficient stoves in 4,000 households to reduce charcoal and fuelwood consumption.</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>Matching demand and energy mix to accelerate rural electrification through Rural Electrification Master Plan 2008-2030 through grid extension, mini-grids, and solar energy and renewable energy feed-in-tariff (2015) to mobilize private sector investment.</li> <li>Partnership with Power Africa / USAID invested US\$2 million in 2016 for approximately 100 MW of new solar power.</li> <li>Smart financing for power suppliers and farm equipment: Beyond the Grid for Zambia "de-risks" costs of operation and expansion for small and medium enterprises.</li> <li>Rent to Own initiative loans farmers productive assets that require either grid or off-grid electricity, such as submersible solar irrigation pumps, freezers, oil presses, maize shellers, stoves, and hammermills.</li> </ul> |

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