

Upscaling Renewable Energy Deployment in Africa

AUC Webinar – 16 June 2020







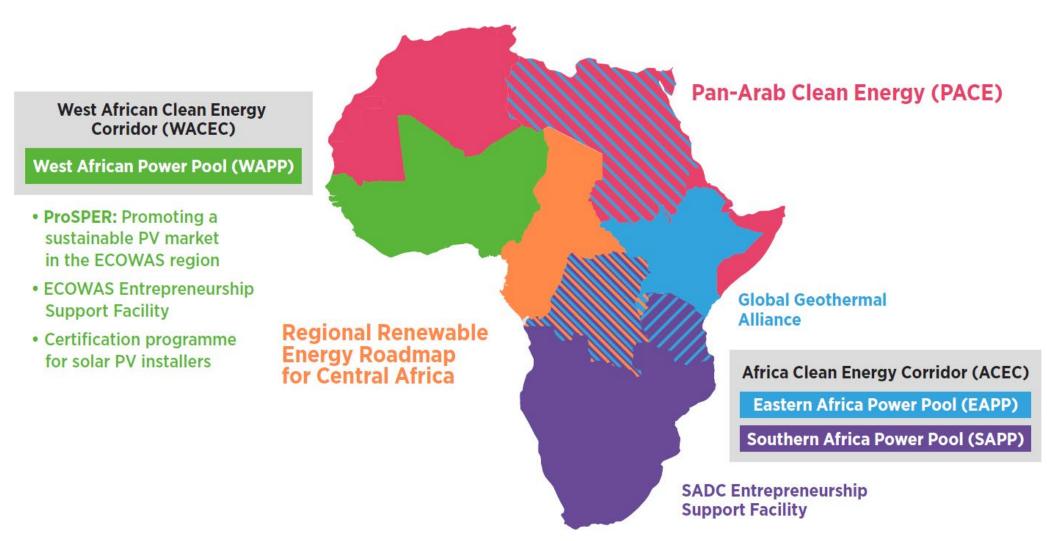






IRENA's Regional Engagement in Africa





ECOWAS = Economic Community of West African States

Disclaimer: Boundaries and names shown on this map do not imply any official endorsement or acceptance

Clean Energy Corridors in Africa



- Objectives:

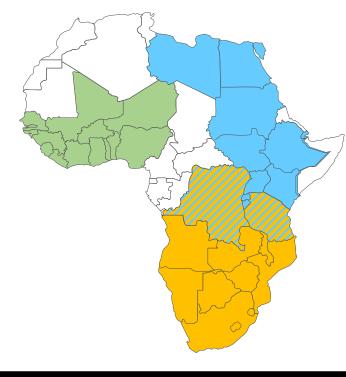
- Transform the current fuel mix by promoting the development of clean, indigenous, cost-effective renewable power options
- Strengthen cross-border trade of renewable power

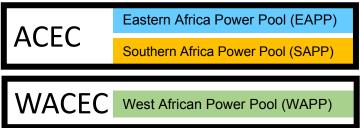
5 Pillars:

- (i) Zoning and Resource Assessment
- (ii) National and Regional Planning
- (iii) Enabling Frameworks for Investment
- (iv) Capacity Building
- (v) Awareness-raising and Political Support

- Implementation:

- Africa Clean Energy Corridor: EAPP & SAPP countries
- West Africa Clean Energy Corridor: WAPP countries





Regional Engagement in Central Africa



- Objective:

Address energy transformation in Central Africa by enabling the region and its member states to effectively reap the benefits of their renewable energy resource potential.

6 Action Areas:

- Renewable Energy Resource Assessment
- Energy data
- Long-term planning
- Enabling National and Regional Policy and Regulatory Framework for Investments
- Renewable Energy Project Development and Finance
- Institutional Set-Up and Skill Development across the Renewables Value Chain

Implementation:

- in partnership with the secretariat of the ECCAS

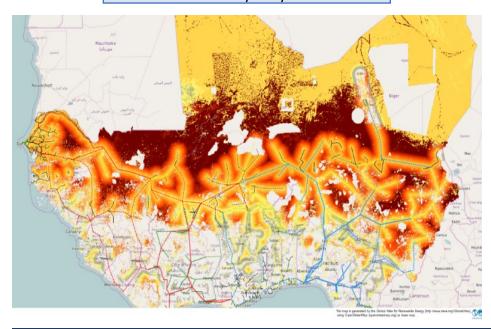


Resource Assessment and Zoning

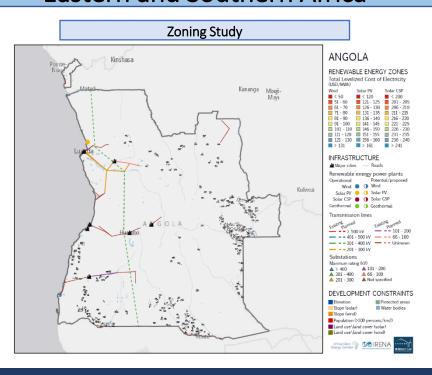


West Africa

Suitability Analysis



Eastern and Southern Africa



High resource potential and cost-effective power generation zones identified for wind and solar

Trainings to ministries, utilities and regulatory bodies on the use of the methodology

Inputs into planning and power procurement processes at continental, regional and national levels

Long Term Energy Planning

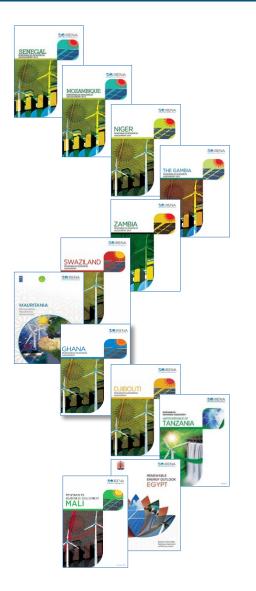


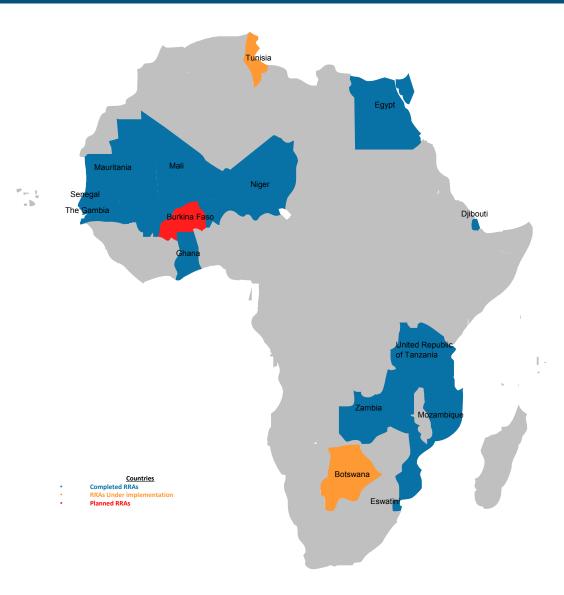
- Least-cost energy planning model configured and regional analyses conducted for all 5 sub-regions.
- Regional trainings delivered to >200 energy planners.
- Inputs to regional power sector plans provided, incl.
 - SAPP Power Plan to 2040.
 - ECOWAS Power Masterplan to 2033.
- National energy planning capacity-building programmes and support/inputs to national energy sector plans
 - Eswatini (→ Energy Masterplan 2034)
 - Sierra Leone (→ draft Energy Masterplan 2040)
 - Cameroon
- Inputs to continental planning process
 - Inputs to integration of solar PV and wind as part of process of PIDA Priority Action Plan revision.

Upcoming Energy Planning Report for the Africa Clean Energy Corridor

- □ Long-term (2020-2040) potential and prospects for solar PV and wind deployment in Eastern and Southern Africa, and related transmission needs.
- □ Scenarios for power sector developments in the region to 2040, testing implications from different levels of regional trade and VRE penetration.
- Provides targeted inputs to the PIDA PAP revision process and to regional master plan updates.

Enabling Frameworks for Investment







Mali (2019)

Egypt¹ (2018)

Tanzania (2017)

Djibouti² (2015)

Ghana (2015)

Mauritania (2015)

Eswatini² (2014)

Zambia (2013)

The Gambia (2013)

Niger (2013)

Mozambique² (2012)

Senegal (2012)

Tunisia (2020)

Botswana (2020)

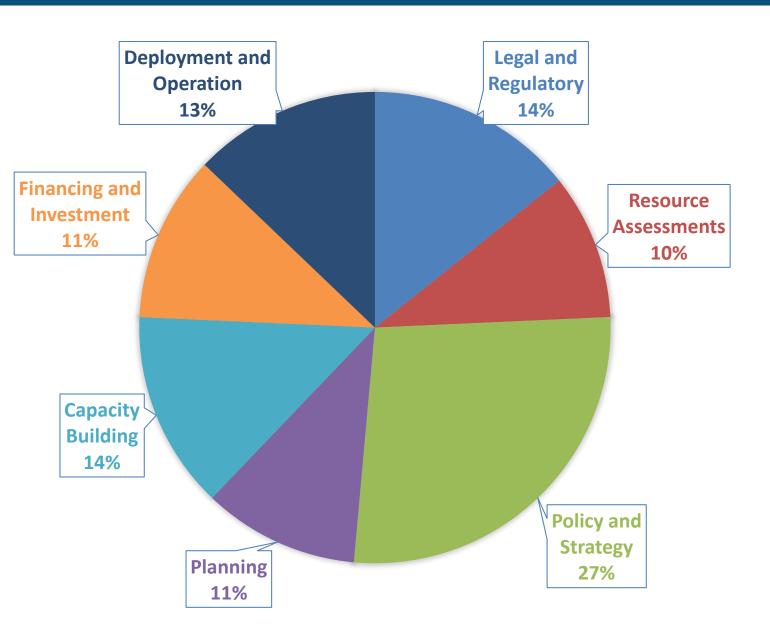
Burkina Faso (2020-21)

¹ RRA-REmap combined

² Post-RRA technical support

Enabling Frameworks for Investment





Country-led post-RRA implementation

Post-RRA Technical Assistance from IRENA

Post-RRA Technical Assistance by other partners

Enabling Frameworks for Investment



Regional Technical Assistance and Capacity Building Support

Eastern and Southern Africa

- Planning process with higher shares of renewables
 - Publication: Insights on Planning for Power System Regulators (2018)
 - Analysis for SAPP, Namibia and Zimbabwe
 - Africa RE Training Week (2016)
- RE Auctions
 - Publication: Cases from Sub-Saharan Africa (2018)
- Renewable energy data collection and processing
 - Training (2017)

Northern Africa

- Evaluating Renewable Energy Manufacturing Potential in Egypt, Morocco and Tunisia (2015)
- Renewable energy data collection and processing
 - Training (2017)
- Finance, Planning, Project Development
 - Trainings (2019)

Western Africa

- Planning and operation of grids with variable renewable power
 - Two training rounds (2018)
 - Study visit to China (2018)
 - Training on Power Systems Economics (2020)
- Renewable energy PPAs
 - Four training rounds (2018)
 - Training on Financial modelling (2020)
- Renewable energy data collection and processing
 - Training (2019)



Central Africa

Regional Capacity-Building programme on Long-term Planning



Energy Access





International Off-Grid Renewable Energy Conference and Exhibition (IOREC)

Collaborative platform for sharing knowledge and best practices on approaches to scale-up off-grid renewable energy

Promoting a Solar PV Market in West Africa

Strengthening and developing local capacities of policymakers, regulators and utilities, financial institutions and renewable energy entrepreneurs.

ECOWAS RE Entrepreneurship Support Facility

- 3 calls for proposals \rightarrow 280+ applications
- 90+ entrepreneurs supported
- SMEs from all 15 ECOWAS member countries
- approx. USD 1 Million debt financing
- 12 partner/advisory/funding institutions
- Regional Solar PV Association established

SADC RE Entrepreneurship Support Facility

- Established in 2017
- First call for proposals launched in 2018
- Gender and youth

ECOWAS Certification for Sustainable Energy Skills

- Regionally harmonised certification system recognised in all ECOWAS countries
- Pilot countries: Ghana, Senegal

Renewable Energy Solutions For Healthcare Facilities

- International conference held in 2018 in Singapore
- Country-level technical support for improving electricity access of rural healthcare facilities through renewable solutions (Burkina Faso)



THANK YOU













Resource Assessment



