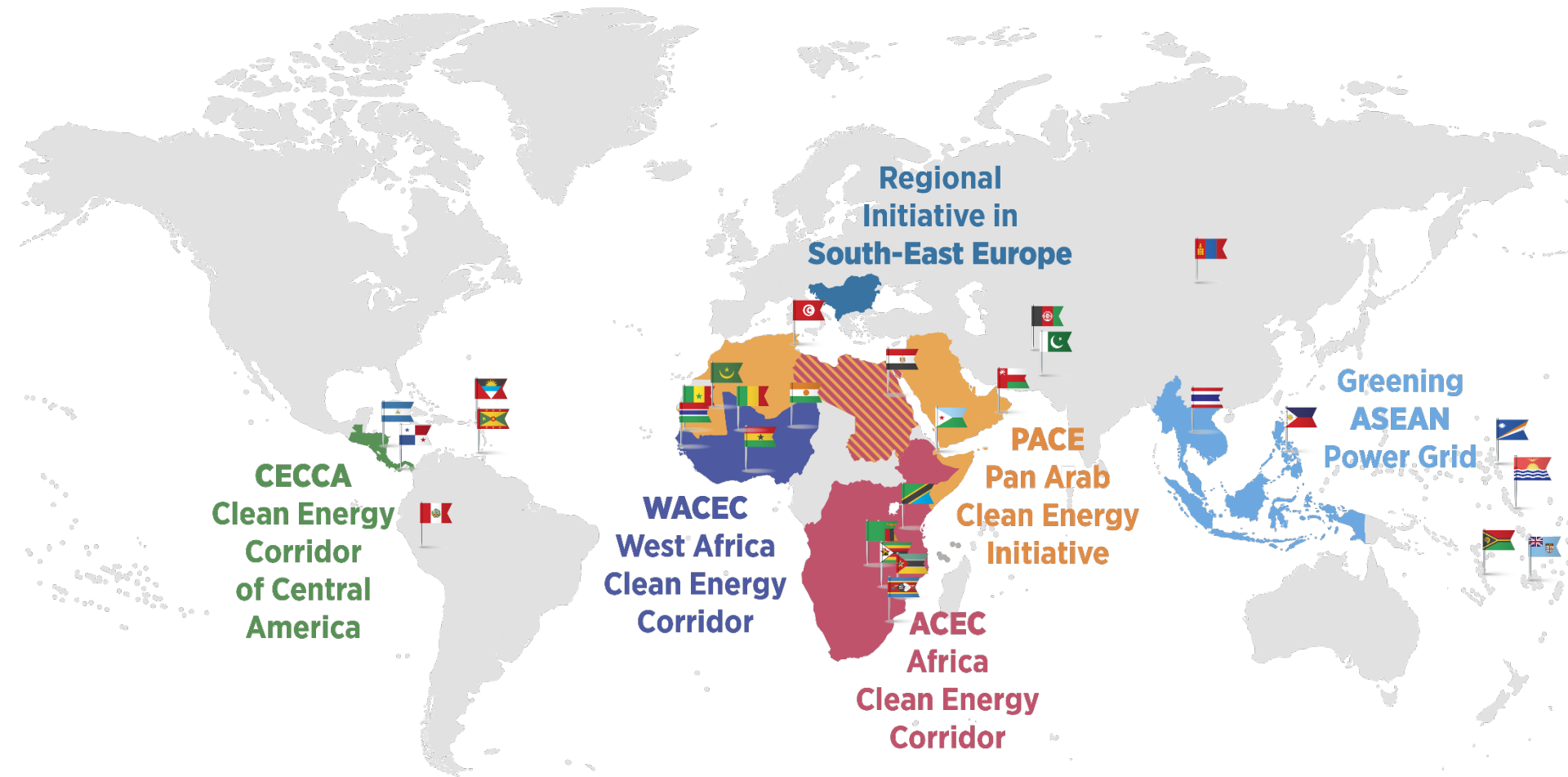


Specialized Technical Committee on Interregional Infrastructures, Energy and Tourism

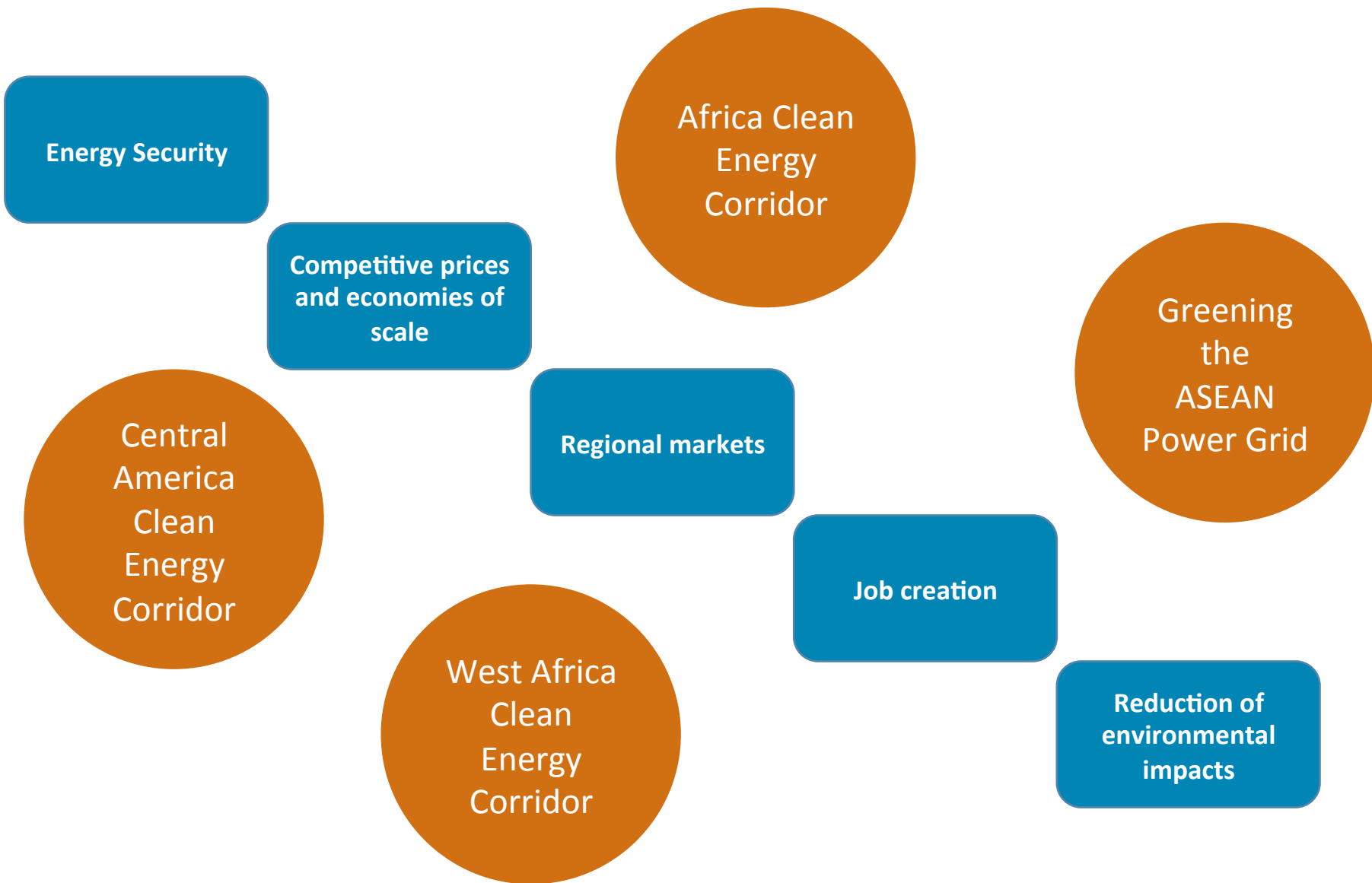
# *Clean Energy Corridors in Africa*

15 March 2017 - Lomé, Togo

# IRENA Regional Initiatives

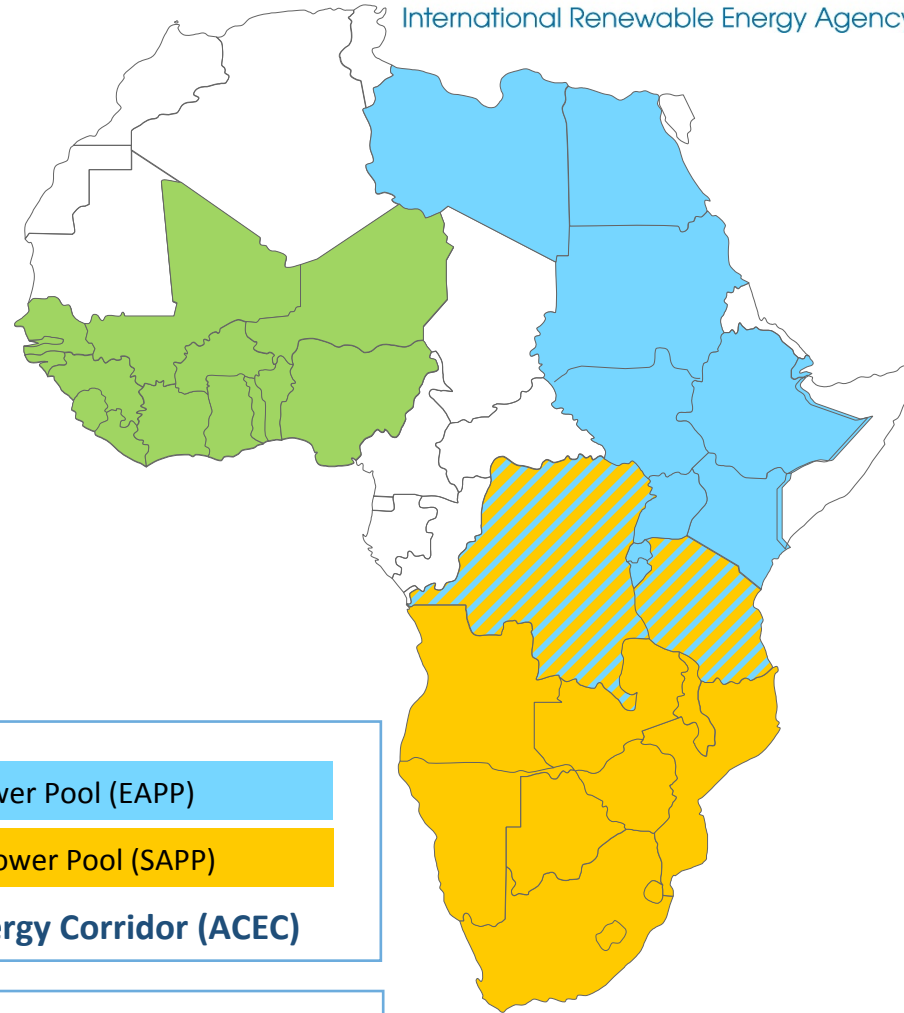


# Rationale of the Clean Energy Corridor



# Clean Energy Corridors in

- **Develop RE resources and integrate renewable power into grid**
- **Promote cross-border trade of renewable power**
- **Build on regional initiatives**



Eastern Africa Power Pool (EAPP)

Southern Africa Power Pool (SAPP)

**Africa Clean Energy Corridor (ACEC)**

West Africa Power Pool (WAPP)

**West Africa Clean Energy Corridor (WACEC)**

# ACEC Implementation Pillars

**Resource Assessment and Zoning**

**Country and Regional Planning**

**Enabling Frameworks for Investment**

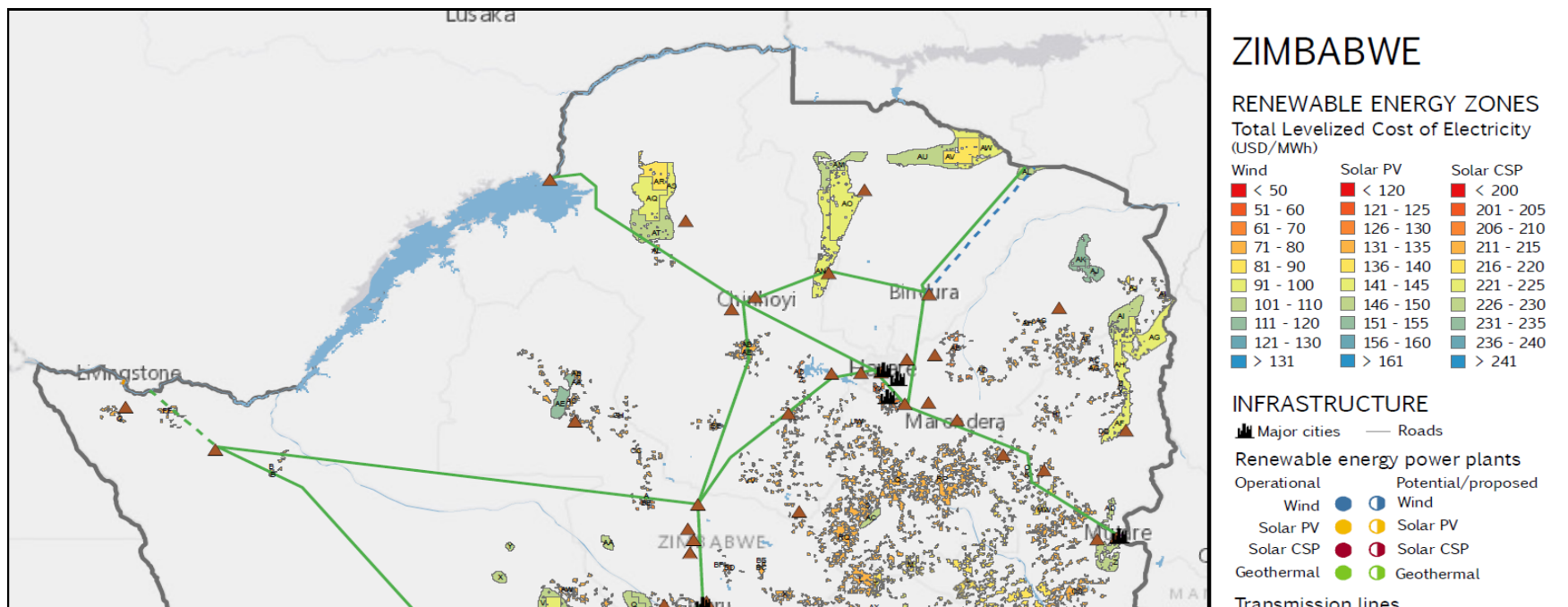
**Capacity Building**

**Awareness-raising and Political Support**

## Activities Completed

- ACEC: Zoning exercise for Wind, Solar PV and CSP for all the 21 countries to determine the most feasible and cost effective RE zones
- WACEC: Identification of suitable zones for solar and wind energy projects at 1-km resolution (solar, wind) for on-grid and off-grid
- WACEC: Scoping assessment for the solar component completed by EU-

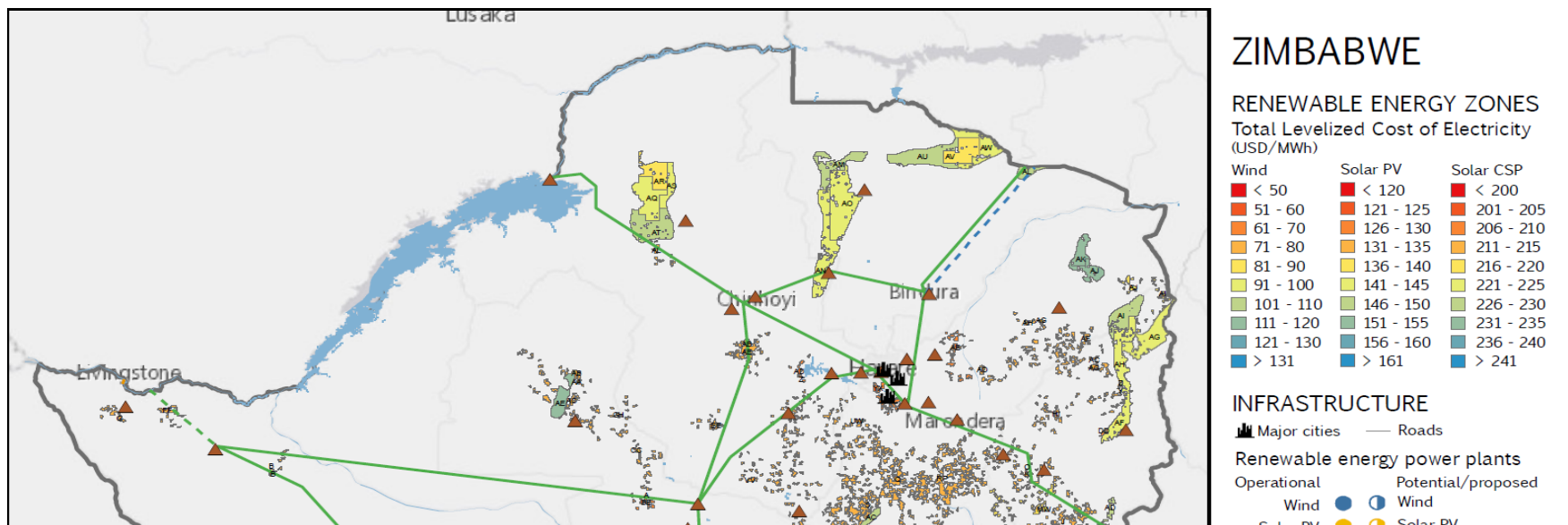
TAF



## Outcomes & Impacts

Zoning work outcomes being used both at national and regional levels:

- In Swaziland for the updating of the energy master plan
- In Zimbabwe in the development of the renewable energy policy and as basis for the development of tenders
- Resource Assessment training for solar and wind in Djibouti



## Upcoming Activity

Analysis of selected sites in both ACEC and WACEC

- Due diligence process for selected sites within the identified RE zones to develop:
  - a renewable power Generation Model, using high resolution time series data
  - a Financial Model, including cash flow projections and IRR for the site
- This will help (i) decision makers in designing RE procurement process (ii) investors in assessing financial viability of the project
- Regional workshop to be held in Namibia with national relevant stakeholders from SADC countries



## Objective

Based on the results of the zoning exercise, development and implementation of least-cost System Planning Test models to support planning for long-term power generation expansion plans.

## Outcomes & Impacts

- **SPLAT model tools** developed and available; five regional training seminars held, with 140 African energy planners taking part
- Implementing SPLAT in updating of the **Swaziland** energy master plan, to be completed by mid-2017 (can be implemented in other ACEC countries)
- Integrate the zoning results into the **regional master plans**
- Integrate zoning results to identify projects of high regional importance to be included in the revision of PIDA

## RRA Impact

- **Completed for Djibouti, the Gambia, Ghana, Niger, Senegal, Swaziland, Mozambique, Tanzania, Zambia; In progress for Egypt, Mali and Zimbabwe**
- **They have triggered tangible changes in policies, legislations and institutional**

### MOZAMBIQUE

- RE feed-in-tariffs adopted
- Rural Electrification approach revised to create room for more private sector involvement

### SWAZILAND

- Grid Code adopted
- RE and IPP policies under development
- RE being integrated into national energy policy and legislation
- Integrated resource planning under development

### DJIBOUTI

- RRA used as basis for a geothermal intervention of USAID
- Inclusion of RE in the electricity Master Plan and Electricity Law
- Tax exemption for all RE equipment
- Developed national strategy for energy conservation focusing on renewables.

### NIGER

- Creation of a new Rural Electrification Agency
- Reallocation of part of the tax on electricity for rural electrification as part of the internal resource mobilization mechanism for RE promotion

## Regulatory Support

### Objective

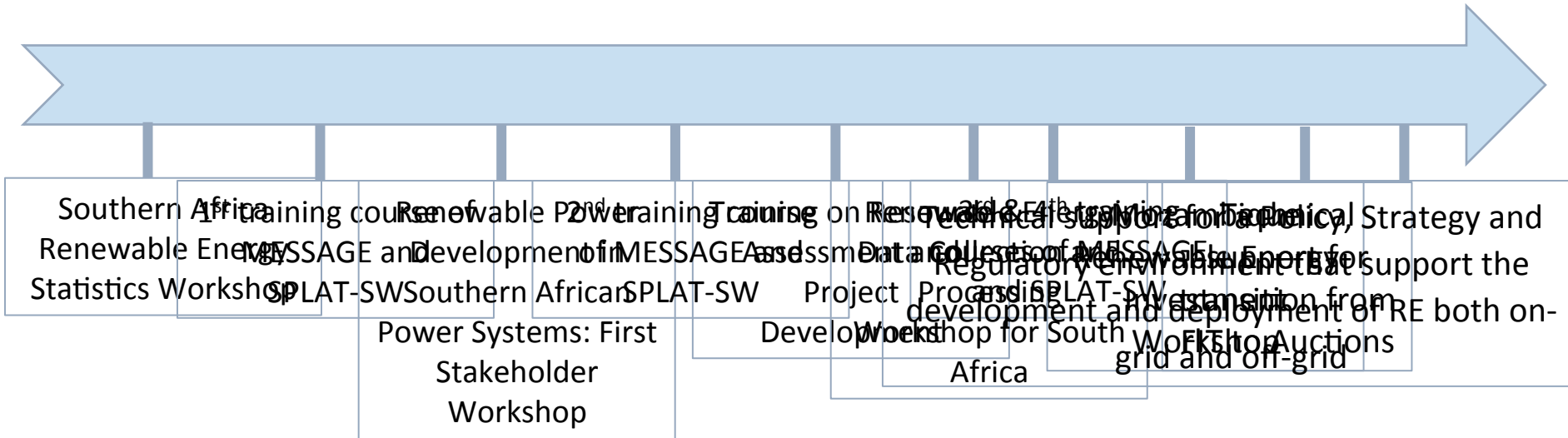
To support RERA and national regulators in the development, management and implementation of planning processes for the power systems operating with higher shares of renewables

### Outcomes

- Global best practices for utility Integrated Resource Plans in SAPP developed and results to be presented in 2017
  - Best practices implemented in two pilot countries – Namibia and Zimbabwe
- Regulatory training: First Africa Renewable Energy Training Week

## Technical Assistance and Capacity Building: Post-RRA or Per Request

21-23 November 2016, Mbabane, Swaziland  
 21 November – 25 November 2016, Mbabane, Swaziland



# ACEC Project Support

**RESOURCE**  
YOUR SOURCE FOR RENEWABLE ENERGY INFORMATION

Success stories  
Country profiles

Project concept

Site characterization

**GlobalAtlas**  
FOR RENEWABLE ENERGY

Deployment

**ACEC/WACEC**

Pre-feasibility

**IRENA ADFD**  
Supporting Energy Transition  
**SUSTAINABLE ENERGY MARKETPLACE**

Assistance to  
financial closure  
and debt facility

Investor ready

Feasibility

Bankable project  
development guidelines

**IRENA PROJECT NAVIGATOR**

**SUSTAINABLE ENERGY MARKETPLACE**

Evaluate, technical assistance

# Partnerships



Africa Renewable Energy Initiative



West African Power Pool



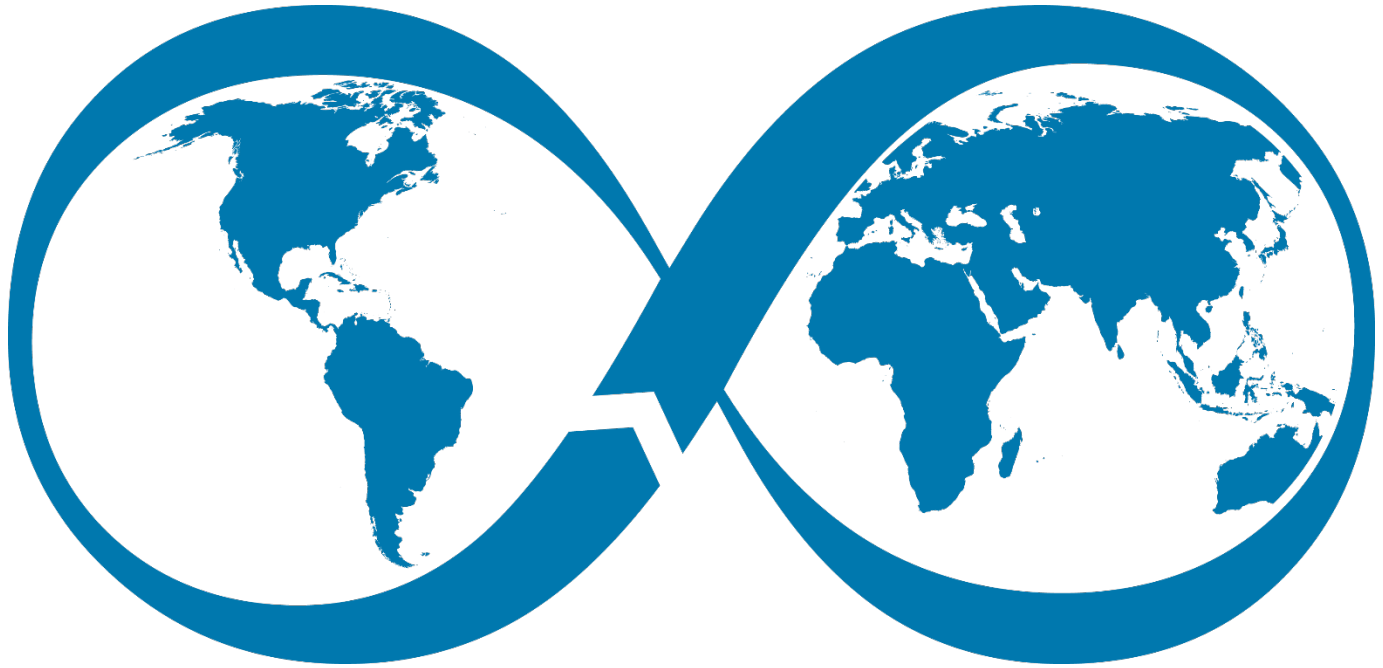
**ECREEE**  
TOWARDS SUSTAINABLE ENERGY



- Insufficient coordination among stakeholders at national level
- No structured coordination among development partners
- Absence of dedicated RE regional counterparts in the Eastern African region to coordinate work under different pillars
- Low capacity in countries to take the work forward; information and capacity acquired not disseminated

1. Ensure coordination among various sectors and actors for a smooth implementation of the Clean Energy Corridors (ACEC/WACEC)
2. Ensure continuing strong commitment at country level as well as the ownership of the Clean Energy Corridors
3. Embed the clean energy corridors in national renewable energy and climate change agendas as well as the process of creation of a sustainable and low-carbon power market
4. Given the fact that the Clean Energy Corridors build on PIDA, ensure that all the projects of regional importance coming out of ACEC/WACEC are considered to be part of the revised version of PIDA





**THANK YOU**