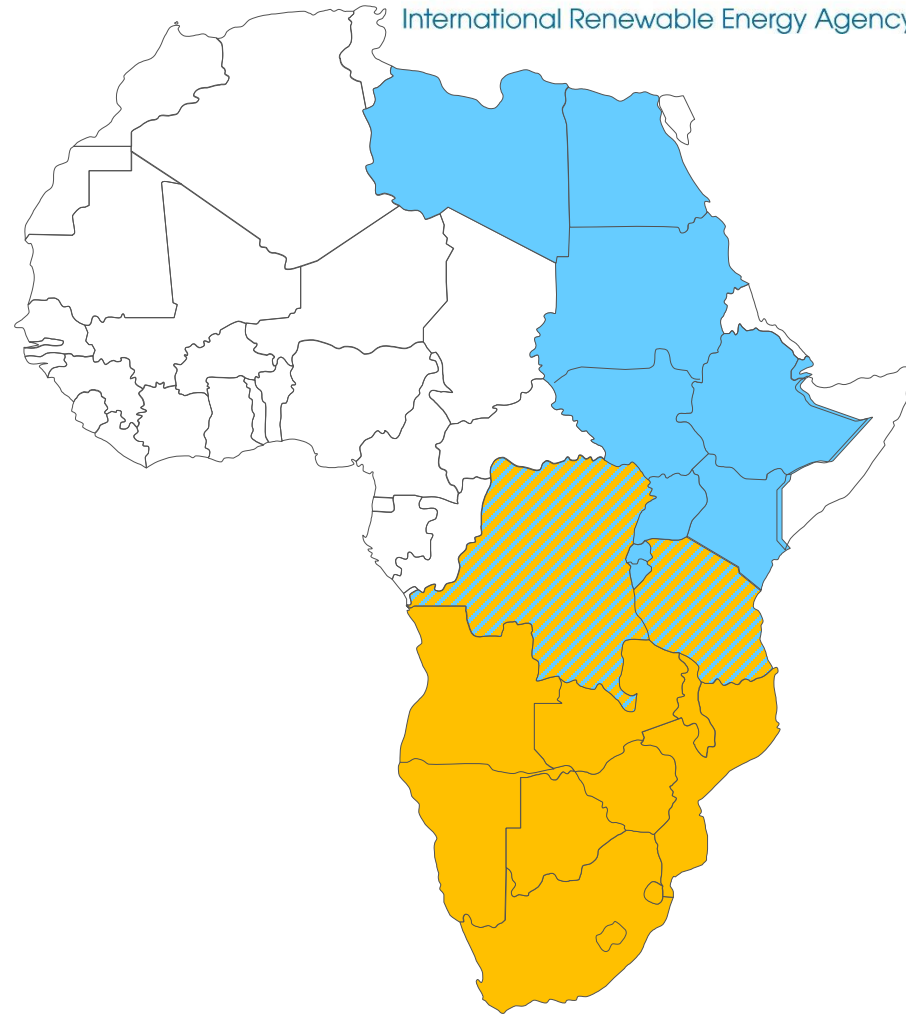




Africa Clean Energy Corridor

- Promote development of RE resources
- Promote cross-border trade of renewable power
- Build on regional initiatives



Eastern Africa Power Pool (EAPP)

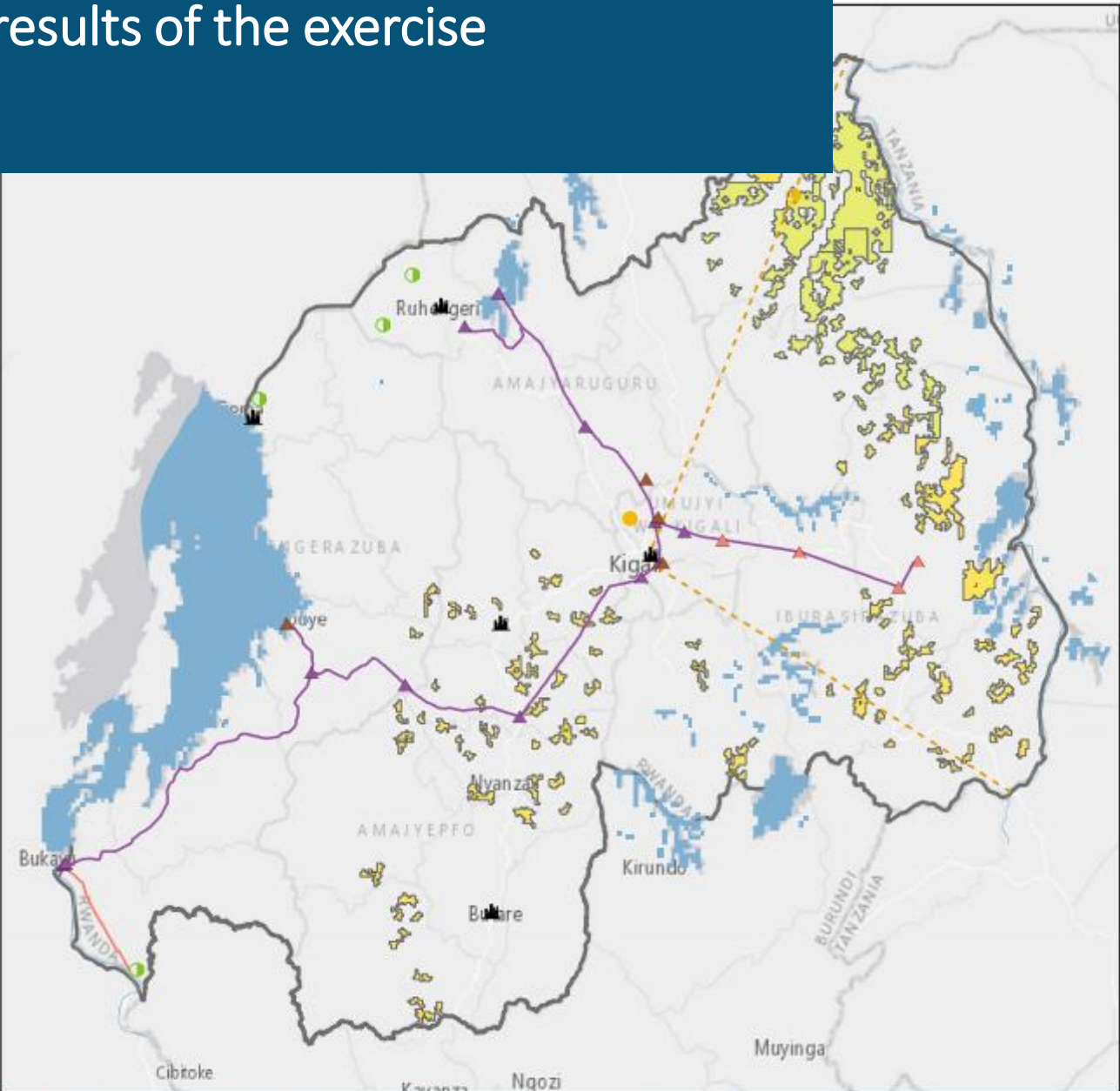
Southern Africa Power Pool (SAPP)

Africa Clean Energy Corridor (ACEC)

Resource Assessment and Zoning

- Identify the best zones to develop renewable energy projects
- Assess their prospective contribution to the planned regional power system

Sample results of the exercise



RWANDA

RENEWABLE ENERGY ZONES

Total Levelized Cost of Electricity (USD/MWh)

Wind	Solar PV	Solar CSP
< 50	< 120	< 200
51 - 60	121 - 125	201 - 205
61 - 70	126 - 130	206 - 210
71 - 80	131 - 135	211 - 215
81 - 90	136 - 140	216 - 220
91 - 100	141 - 145	221 - 225
101 - 110	146 - 150	226 - 230
111 - 120	151 - 155	231 - 235
121 - 130	156 - 160	236 - 240
> 131	> 161	> 241

INFRASTRUCTURE

- Major cities (black icon)
- Roads (grey line)
- Renewable energy power plants
 - Operational: Wind (blue circle), Solar PV (yellow circle), Solar CSP (red circle), Geothermal (green circle)
 - Potential/proposed: Wind (blue circle with border), Solar PV (yellow circle with border), Solar CSP (red circle with border), Geothermal (green circle with border)

- ### Transmission lines
- Existing: > 500 kV (red dashed), 401 - 500 kV (blue dashed), 301 - 400 kV (green dashed), 201 - 300 kV (yellow dashed)
 - Planned: 101 - 200 (purple dashed), 66 - 100 (orange dashed), Unknown (brown dashed)

- ### Substations
- Maximum rating (kV)
- > 400 (blue triangle), 301 - 400 (green triangle), 201 - 300 (yellow triangle)
 - 101 - 200 (purple triangle), 66 - 100 (orange triangle), Not specified (red triangle)

DEVELOPMENT CONSTRAINTS

- Elevation (blue square)
- Slope (solar) (orange square)
- Slope (wind) (red square)
- Population (>100 persons/km2) (yellow square)
- Land use\land cover (solar) (purple square)
- Land use\land cover (wind) (green square)
- Protected areas (green square)
- Water bodies (blue square)

Full report and interactive tools for all 21 countries

<http://mapre.lbl.gov/rez/searez/>

SEAREZ

The Southern and Eastern Africa Renewable Energy Zones (SEAREZ) were identified as part of the Africa Clean Energy Corridors initiative in collaboration with and with support from the International Renewable Energy Agency (IRENA).

[Renewable Energy Zones for the Africa Clean Energy Corridor Report \(2726 downloads\)](#)

Some key lessons

- LCOE is within **120** and 170 \$/MWh for PV; **65** and 150 \$/MWh for wind; and **200** and 265 for CSP across the 21 countries
- Generation potential could reach: **30,000 TWh** of solar PV, **9000 TWh** for wind and **21,000 TWh** for CSP exists across the 21 countries
- **Regional grid interconnection** will enable cross border management of this new capacity



Some post zoning IRENA activities?

- Site Assessments
- Support with long term energy planning and master plan development

To Countries:

What have you done so far after
the zoning effort?