RISE

WORLD BANK GROUP

REGULATORY INDICATORS FOR SUSTAINABLE ENERGY

POLICIES MATTER

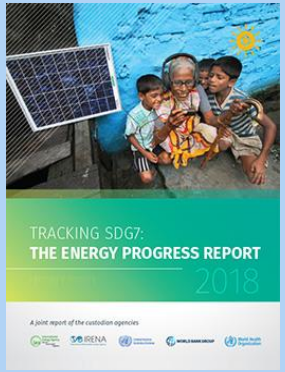
Tigran Parvanyan, Energy Specialist, World Bank

Beirut, April 17, 2019

ENERGY KNOWLEDGE HUB: KEY TOOLS FOR ENERGY DATA

All reports and data are available on **www.esmap.org**

Tracking SDG7 report

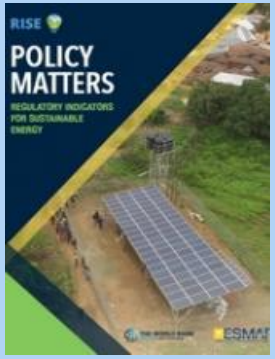


- Comprehensive database to track sustainable energy pillars of SDG7 (220 countries)

MTF Multi-Tier Framework

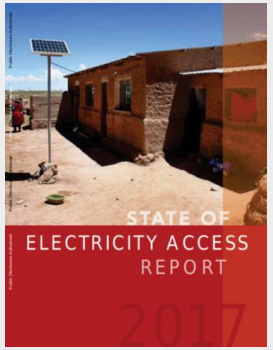
- New definition of access and household data collection in 15+6 countries to track SDG7.1 in its detailed dimensions

RISE Regulatory Indicators for Sustainable Energy



- Regulatory data collected on three pillars plus a pilot on clean cooking for over 130 countries

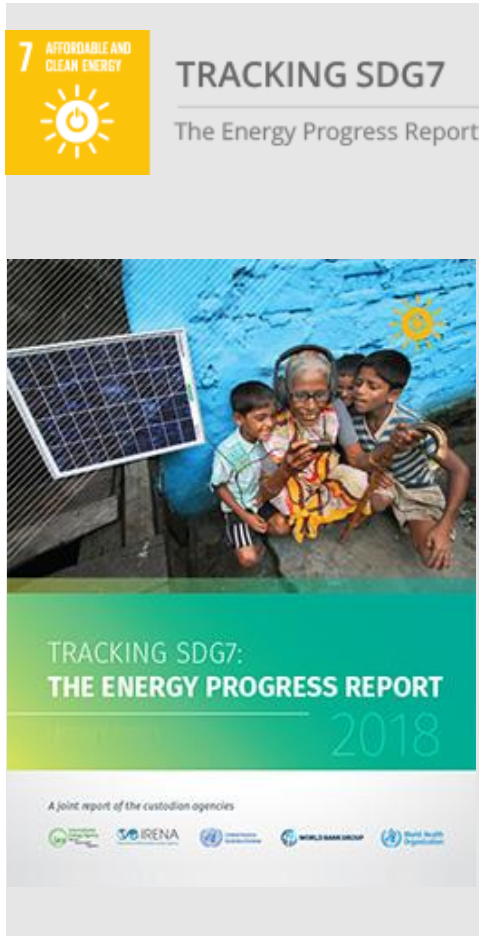
SEAR State of Electricity Access Report 2017



- Compendium of challenges, barriers and strategy with hands-on examples and references

Next SEAR on cooking

TRACKING SDG7: THE ENERGY PROGRESS REPORT 2019



Partners

International Energy Agency — Secure Sustainable Together

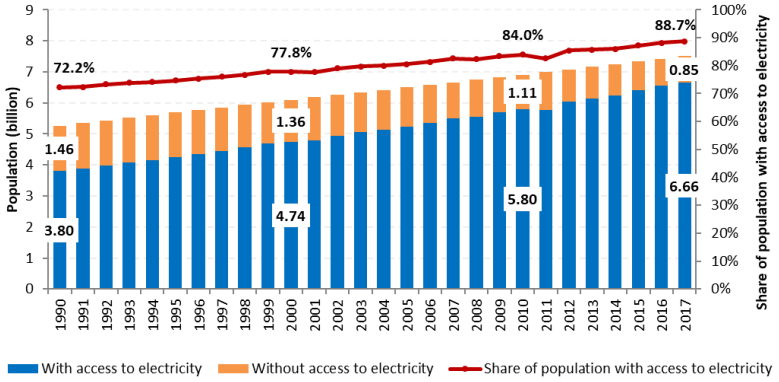
IRENA — International Renewable Energy Agency

United Nations Statistics Division

WORLD BANK GROUP

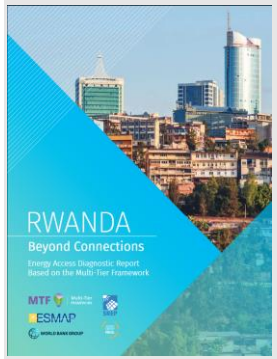
World Health Organization

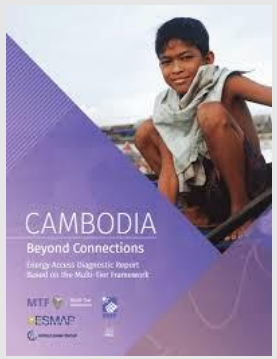
- Tracking SDG7 is a comprehensive tool to track the energy pillars (access, renewables and efficiency) in 220 countries
- On the access side, it tracks the electrification pace of countries from the household perspective
- Provides global historical trends in access to electricity (1990-2017)
- Tracking SDG7 2019 will be launched in New York on **May 24, 2019**

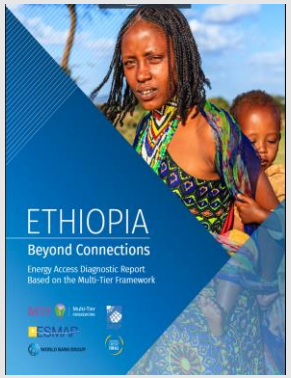


WEBSITE: trackingsdg7.esmap.org/

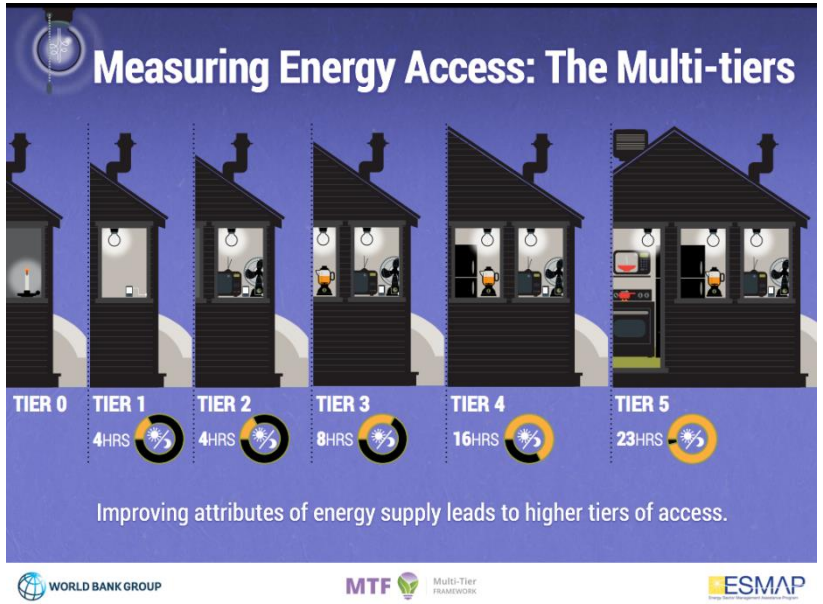
MTF: MULTI-TIER FRAMEWORK







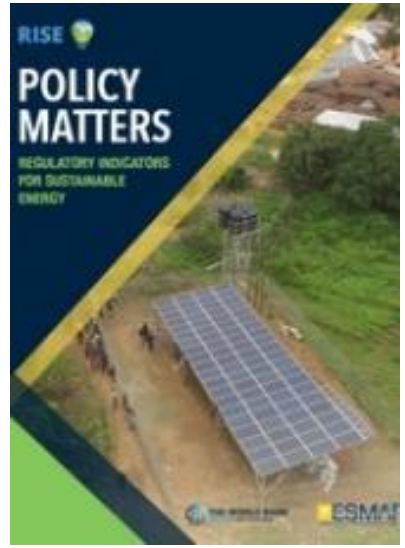
- MTF is able to capture in more details the missing dimensions of energy services (**reliability, affordability, quality, availability**)
- MTF helps understanding the current energy service situation from an end-user perspective and identify possible solution to increase the tier level
- Energy surveys are implemented in **17+6 access deficit countries**: Ethiopia, Rwanda and Cambodia country diagnostic reports were released in 2018

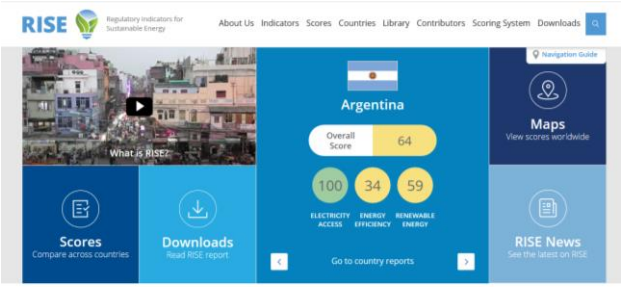


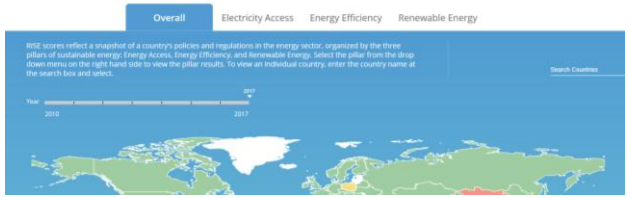
WEBSITE:
Will be online soon

RISE 2018 ALLOWS DECISION MAKERS AND INVESTORS TO TRACK POLICY IMPROVEMENTS ACROSS MANY MORE JURISDICTIONS OVER TIME

- **2nd edition** of a report investigating policies and regulations that enhance sustainable energy – including electricity access, energy efficiency and renewable energy
  - Time stamps added
  - Revised questions, including the assessment of policy enforcement
  - **Pilot on clean cooking** in 12 countries (representing more than 50% of the access deficit)
- **32 indicators**, and 160+ questions that can be compared:
  - across **133 economies**—from Afghanistan to Zimbabwe
  - and over time – **from 2010 to 2017**
- Data in RISE 2018 as of December 31, 2017
- Audience: policymakers, private investors and developers, WB operations teams, academics, MDBs
- RISE data platform with all data and documentation on sustainable energy: **http://rise.esmap.org/**







RISE 2018 COVERS THE FOUR FOCUS AREAS OF SDG7

RISE indicators per pillar

Policies and Regulations

Electricity Access	• Existence and implementation of electrification plan	• Scope of electrification plan • Grid electrification • Mini grids	• Standalone systems • Affordability of electricity	• Utility transparency and monitoring • Utility creditworthiness
Clean cooking	• Planning	• Scope of planning	• Standards and labelling	• Incentives and attributes
Renewable Energy	• Legal framework for renewable energy • Incentives & regulatory support for renewable energy	• Network connection and use • Carbon pricing and monitoring	• Planning for renewable energy expansion • Attributes of financial and regulatory incentives	• Counterparty risk
Energy Efficiency	• National energy efficiency planning • Types of electricity rate structures • Mandates & incentives: utilities	• Energy labeling system • Energy efficiency entities • Mandates & incentives: large consumers • Financing mechanisms for energy efficiency	• Building energy codes • Information provided to electricity consumers • Mandates & incentives: public entities	• Minimum energy performance standards • Carbon pricing and monitoring • Transport energy efficiency

Source: World Bank RISE 2018

RISE 2018 PROVIDES AN OBJECTIVE LOOK ON POLICY EFFORTS

- All indicators are scored between 0 and 100 and have equal weights to reach a total score for each pillar
- All indicators are: objective – comparable – actionable – context neutral
- Pillar and indicator scores are grouped into three categories based on a "traffic light" system:

Green zone: scores between 67 and 100. Most elements of a strong policy framework to support sustainable energy are in place
Yellow zone: scores between 34 and 66. Significant opportunities exist to strengthen the policy framework.
Red zone: scores 33 or lower. Few or no elements of a supportive policy framework have been enacted.

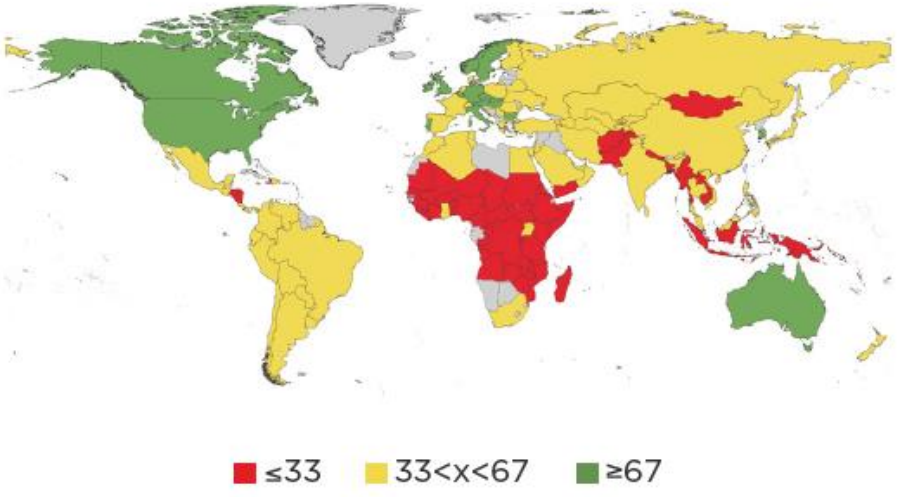
- Each indicator is composed of sub-indicators, many of which are in turn built up from more detailed questions

WHY IS **RISE** IMPORTANT?

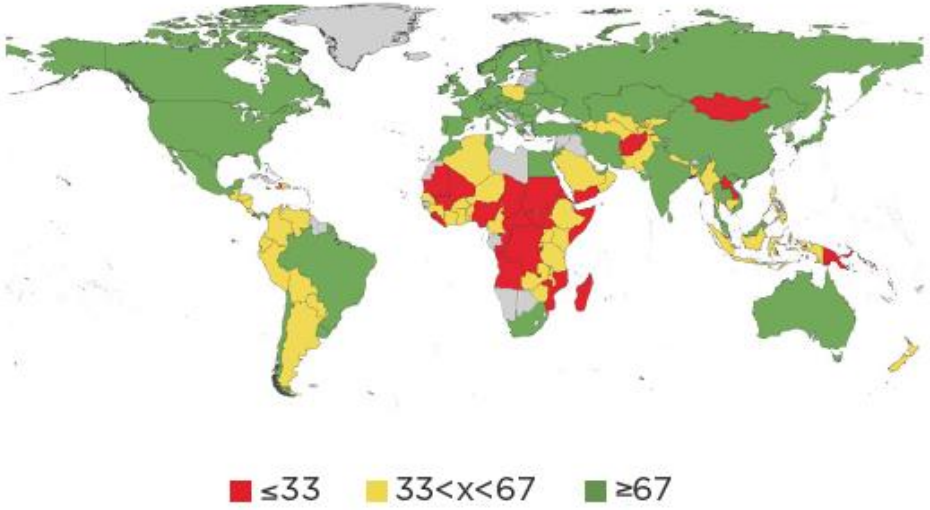
WORLDWIDE, A MAJORITY OF ECONOMIES HAVE STRENGTHENED THEIR SUSTAINABLE ENERGY POLICY ENVIRONMENTS SINCE 2010

Global overview of RISE scores, 2010 vs. 2017

2010



2017

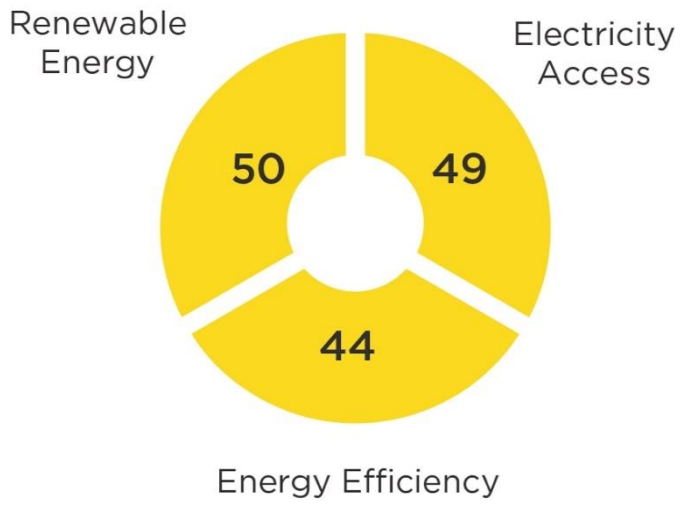


Source: World Bank RISE 2018

- Since 2010, there has been a substantial increase in the number of countries adopting advanced policy frameworks in support of sustainable energy
- By 2017, 59 countries had developed advanced policy frameworks, including many emerging and developing countries. Prominent examples include Brazil, China, Mexico, Morocco, Russia and South Africa.

HOWEVER, POLICY AMBIVALENCE PREVAILS ACROSS THE THREE PILLARS OF SUSTAINABLE ENERGY

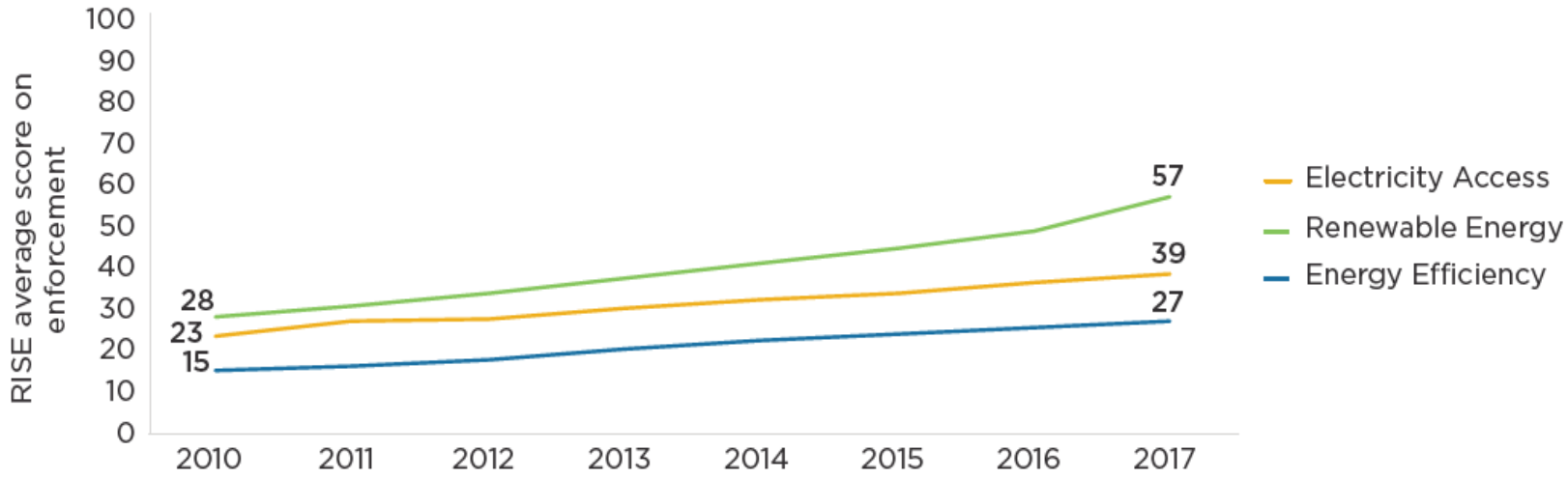
RISE average scores by pillar, 2017



- Across all three dimensions of sustainable energy, average global scores suggest there is considerable scope to improve policy and regulatory framework.
- As of 2017, the global average score did not exceed 50 in any of these areas, indicating an intermediate (yellow) level of performance in all cases.

NEVERTHELESS, COUNTRIES HAVE MADE SIGNIFICANT PROGRESS WITH ENFORCEMENT MEASURES OVER TIME

Evolution of enforcement process for all three pillars, 2010-2017

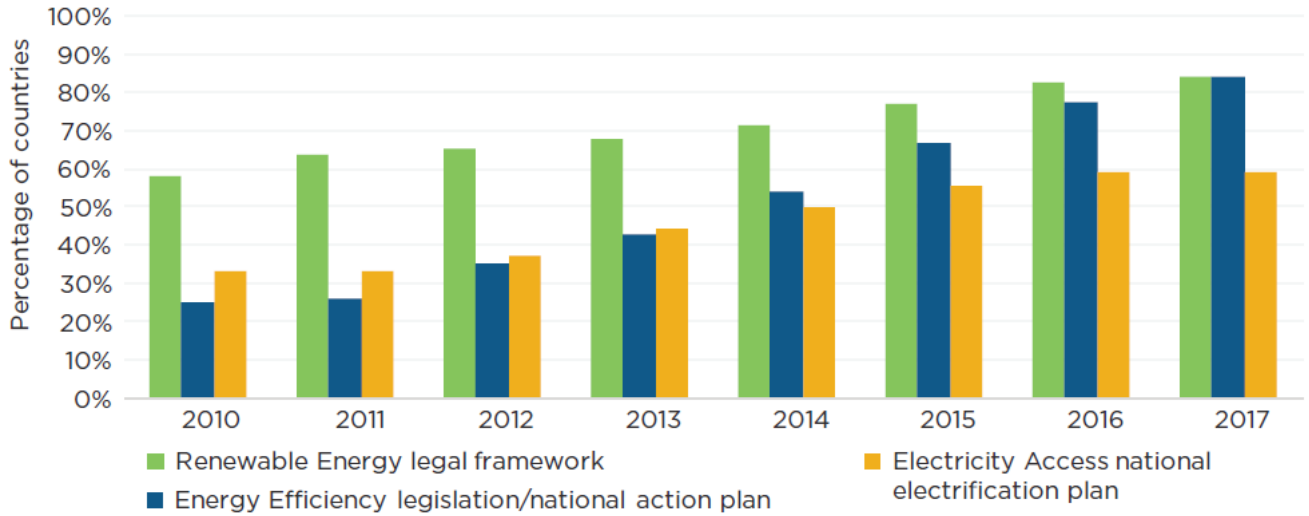


Source: World Bank RISE 2018

- The enforcement process of measuring utility energy efficiency requirements with third party validation was the least adopted mechanism among all surveyed countries worldwide.
- For energy access, the least enforced process relates to tracking and reporting grid reliability standards as part of electrification planning.
- For renewable energy, the least enforced was the process for providing compensation to renewable energy projects when generation is lost due to curtailment after project commissioning.

WITH RESPECT TO CLEAN ENERGY STRATEGY, POLICYMAKERS IN MOST COUNTRIES TENDED TO MOVE FIRST ON DEVELOPING A LEGAL FRAMEWORK FOR RENEWABLE ENERGY, WHILE ACTION ON ENERGY EFFICIENCY CAME LATER

Percentage of countries with plans for electricity access, renewable energy and energy efficiency, 2010 - 2017*

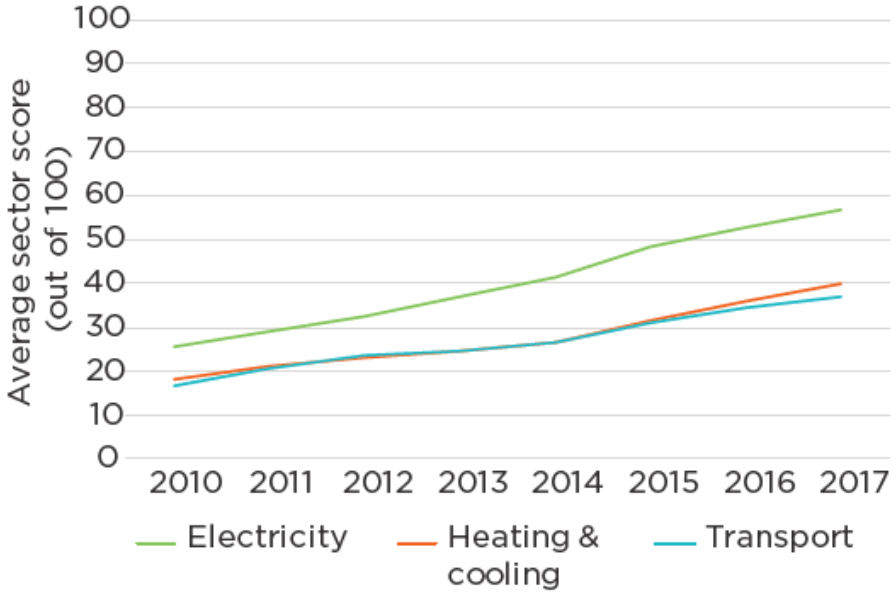


**In the case of electricity access, the percentage is out of 54 access deficit countries*
Source: World Bank RISE 2018

- Even among access-deficit countries, the development of a framework for renewable energy has tended to precede the adoption of an electrification master plan.
- For clean energy policy, renewable energy used to dominate the attention of policymakers at the planning stage. However, energy efficiency planning has become more prevalent in recent years as renewable energy markets and technologies have matured.

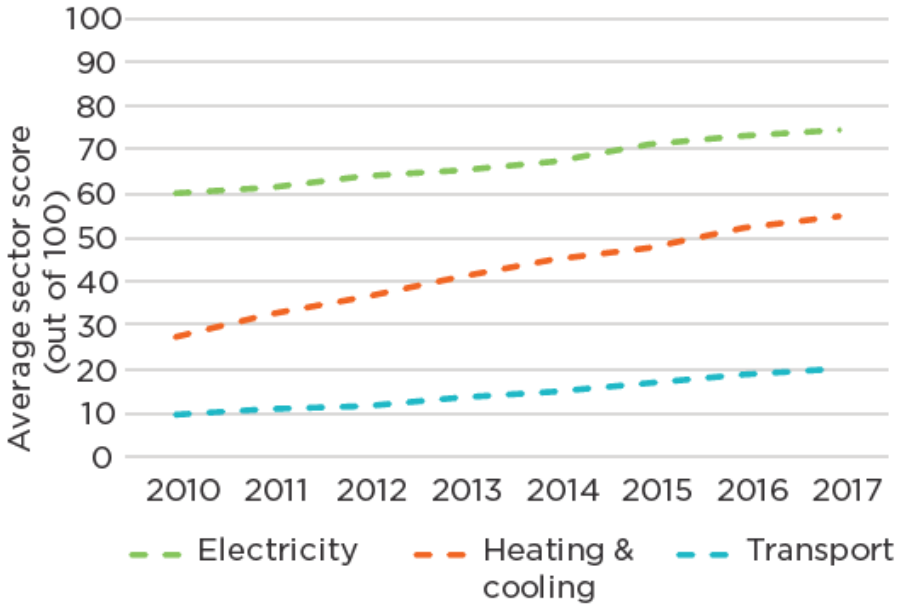
ELECTRICITY REMAINS THE DOMINANT FOCUS FOR POLICY EFFORTS ON RENEWABLE ENERGY AND ENERGY EFFICIENCY

RISE renewable energy scores by sector, 2010 – 2017



Source: World Bank RISE 2018, WDI 2018

RISE energy efficiency scores by sector, 2010 – 2017



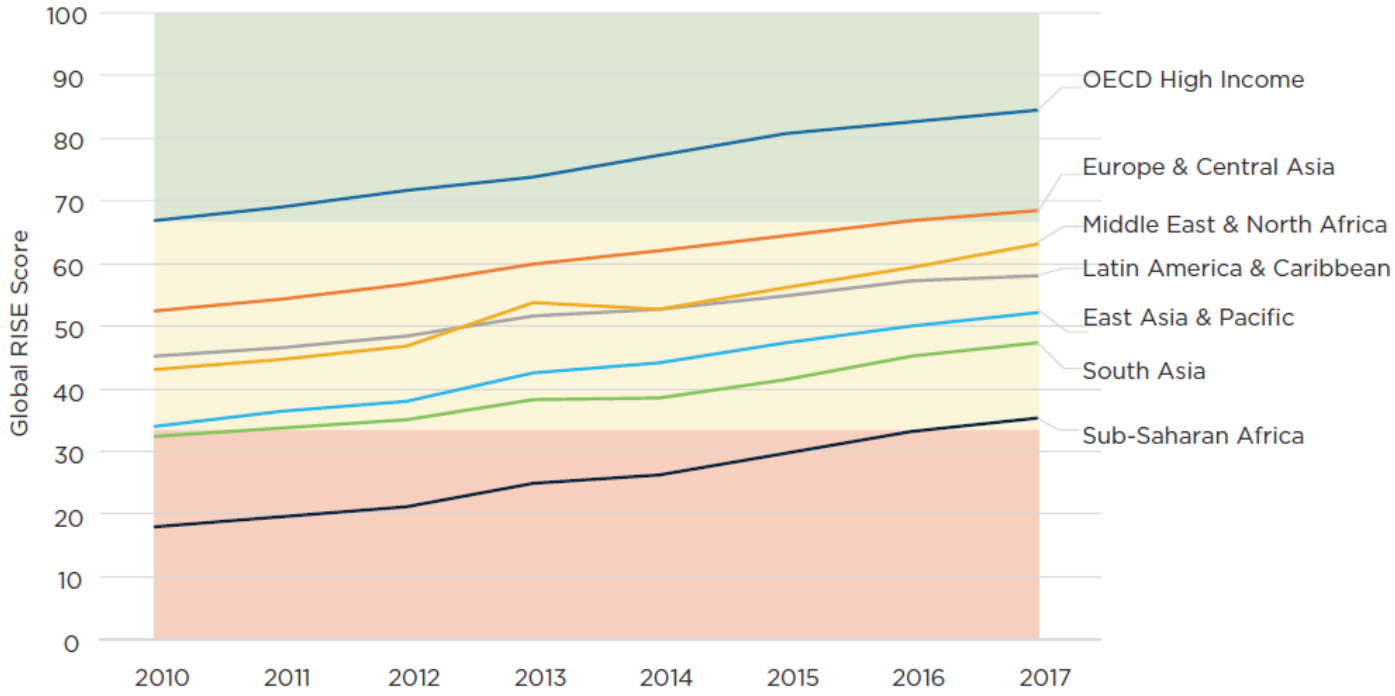
Source: World Bank RISE 2018, WDI 2018

- Broadly speaking, the electricity sector has been the preferred sector for clean energy policies, owing to the rapid cost declines in the sector and greater ease of implementation.
- Transport policies (particularly efficiency-related) are lagging behind and need to be strengthened.

ALL REGIONS HAVE SHOWN SUSTAINED PERFORMANCE IMPROVEMENTS OVER TIME

Evolution of RISE scores by region between 2010 - 2017

- The Middle East and North Africa region has accelerated adoption of policy measures and is approaching the level of policy frameworks found in Europe & Central Asia.
- While the East Asia & Pacific region performed no better than South Asia in 2010, its adoption of sustainable energy policies has subsequently accelerated, moving it closer to the performance of the Latin America & Caribbean region.



Source: World Bank RISE 2018

EVERY REGION HAS AT LEAST ONE RISE TOP PERFORMER IN THE GREEN ZONE, WHILE EACH REGION SHOWS STRENGTHS IN DIFFERENT AREAS

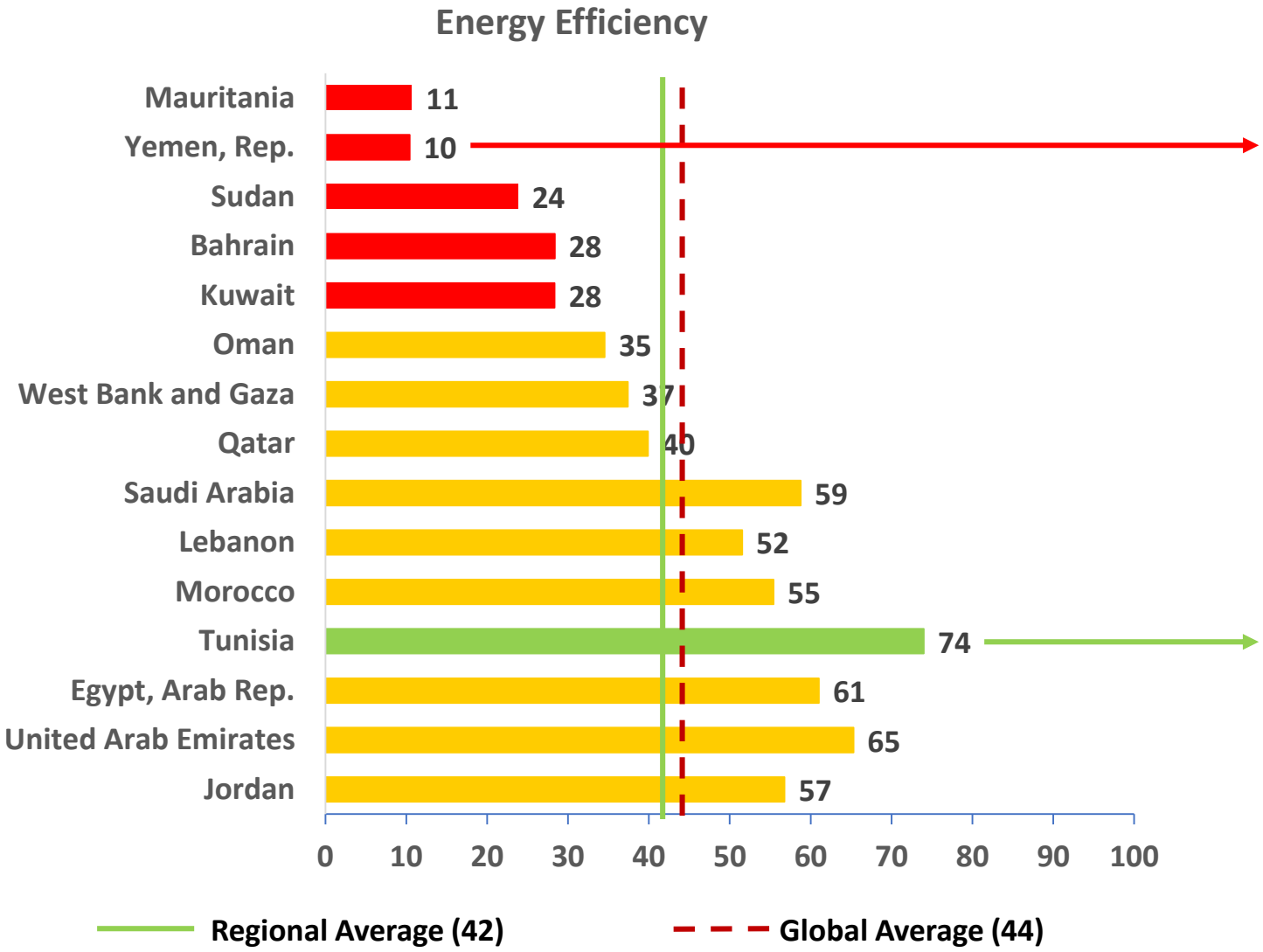
Top three performers on RISE in each region, 2017

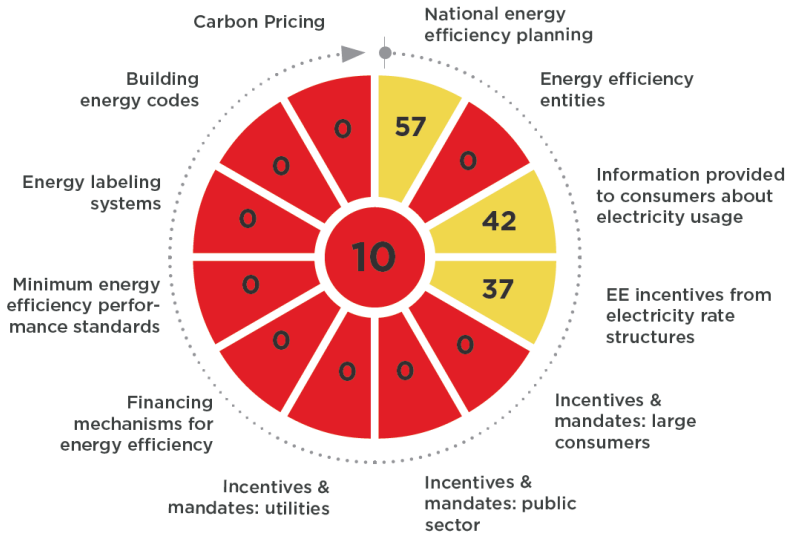
East Asia & Pacific	Europe & Central Asia	Latin America & Caribbean	Middle East & North Africa
Singapore ●	Bulgaria ●	Mexico ●	Iran ●
China ●	Romania ●	Brazil ●	Tunisia ●
Vietnam ●	Turkey ●	Uruguay ●	United Arab Emirates ●
OECD High Income	**South Asia**	**Sub-Saharan Africa**	
Germany ●	Sri Lanka ●	South Africa ●	
United Kingdom ●	India ●	Ghana ●	
Italy ●	Bangladesh ●	Kenya ●	

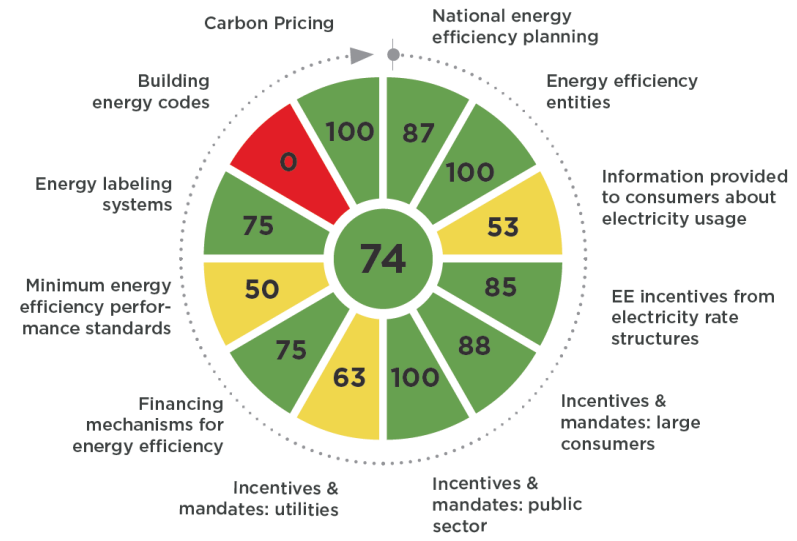
Source: World Bank RISE 2018

- OECD countries and those located in Europe & Central Asia tend to score well both on renewable energy and energy efficiency, whereas other regions are more likely to emphasize one aspect over the other.
- In East Asia & Pacific and Middle East & North Africa regions, the top performers show strong development in energy efficiency policies.

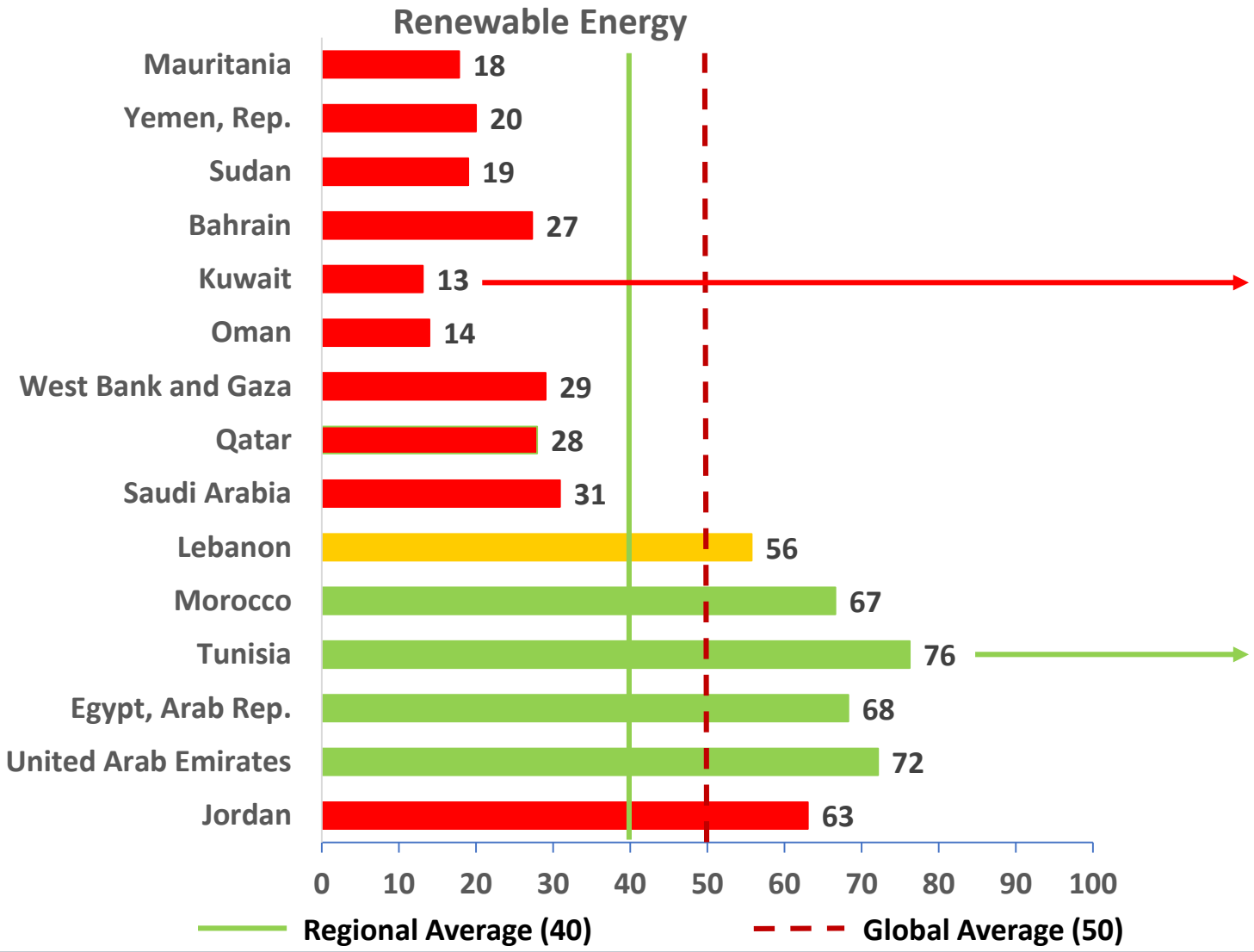
ESCWA REGION RESULTS – ENERGY EFFICIENCY

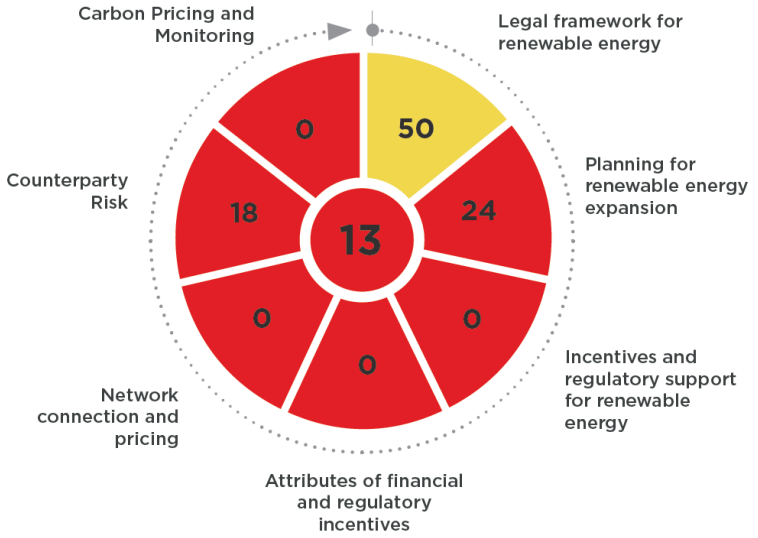


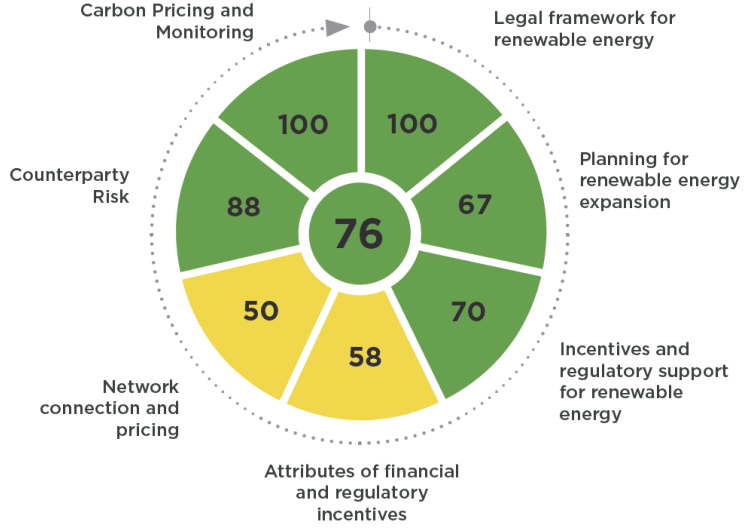




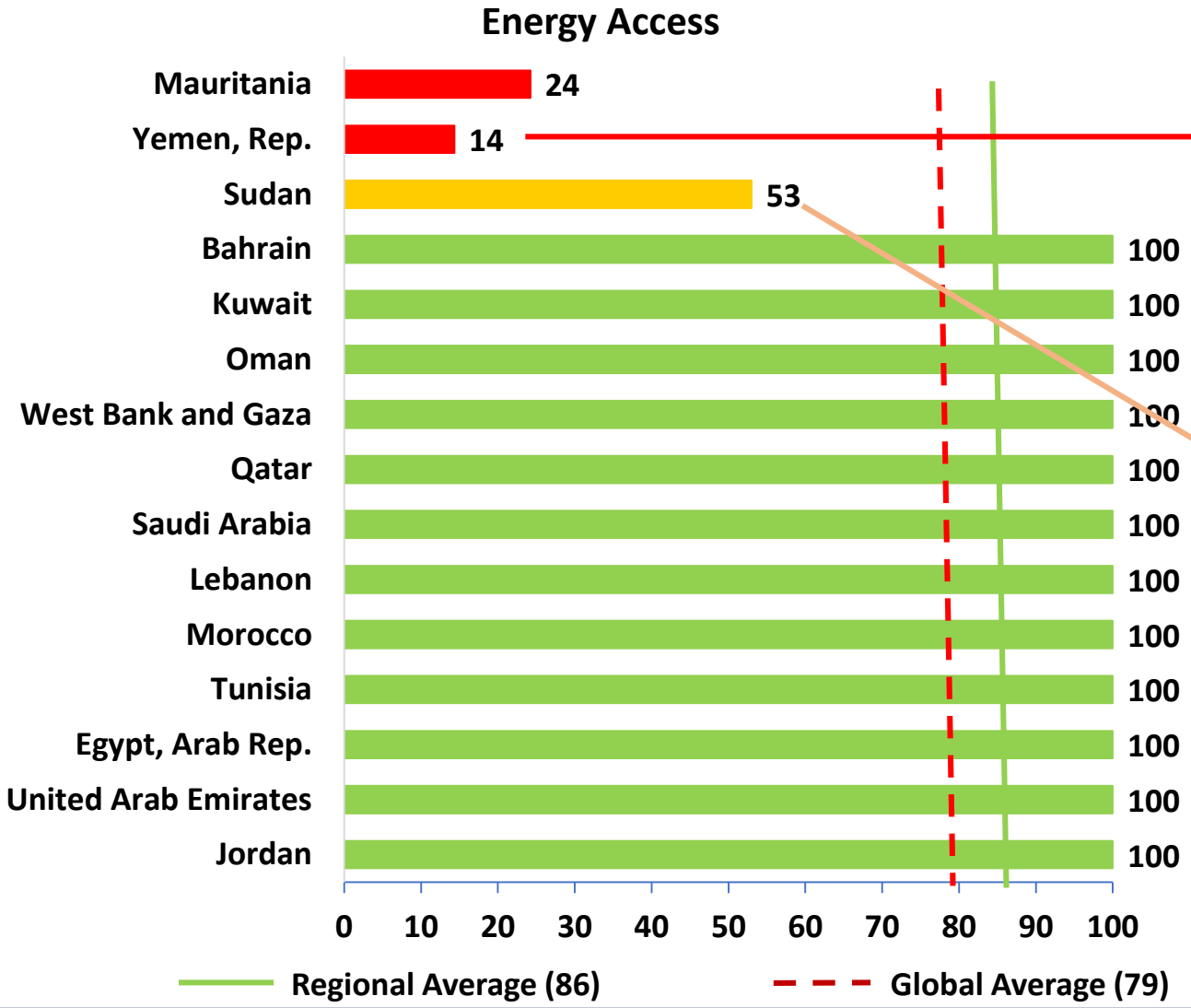
ESCWA REGION RESULTS – RENEWABLE ENERGY

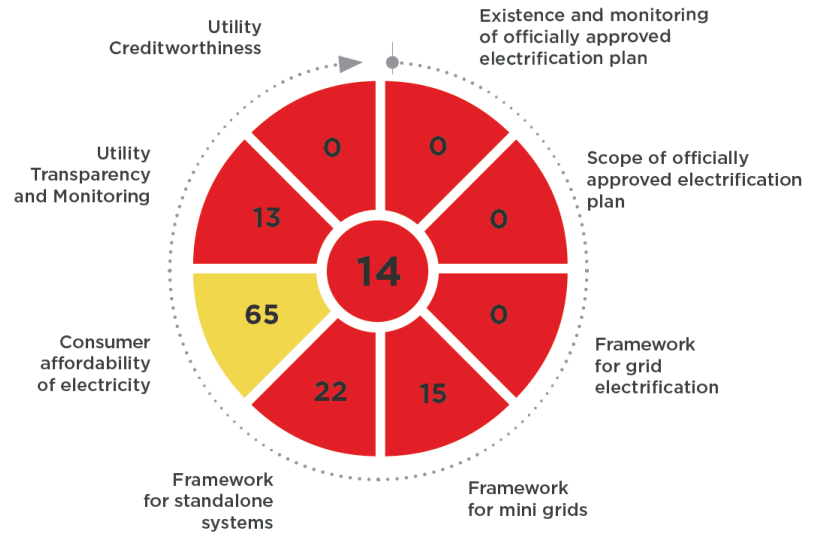


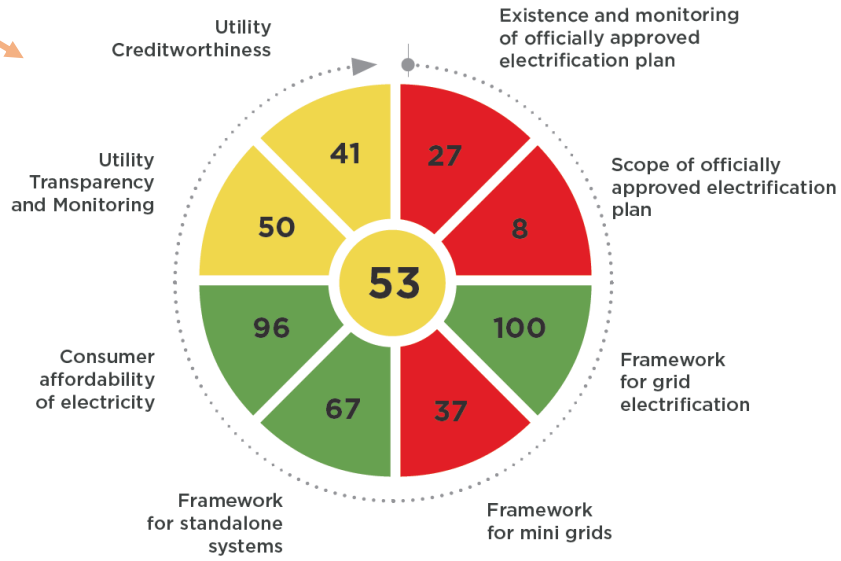




ESCWA REGION RESULTS – ELECTRICITY ACCESS

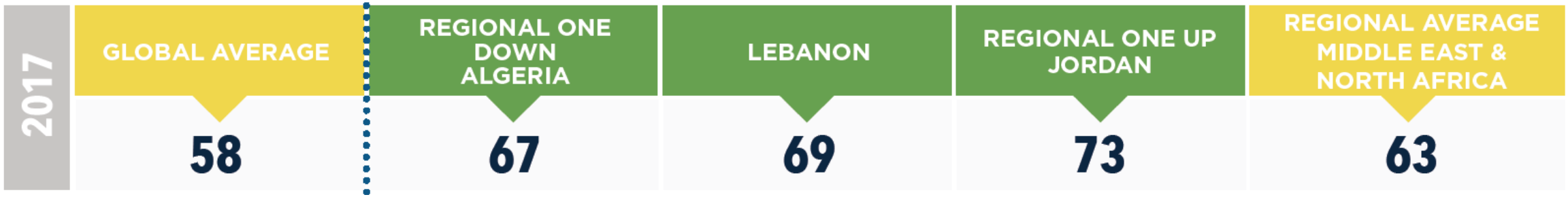




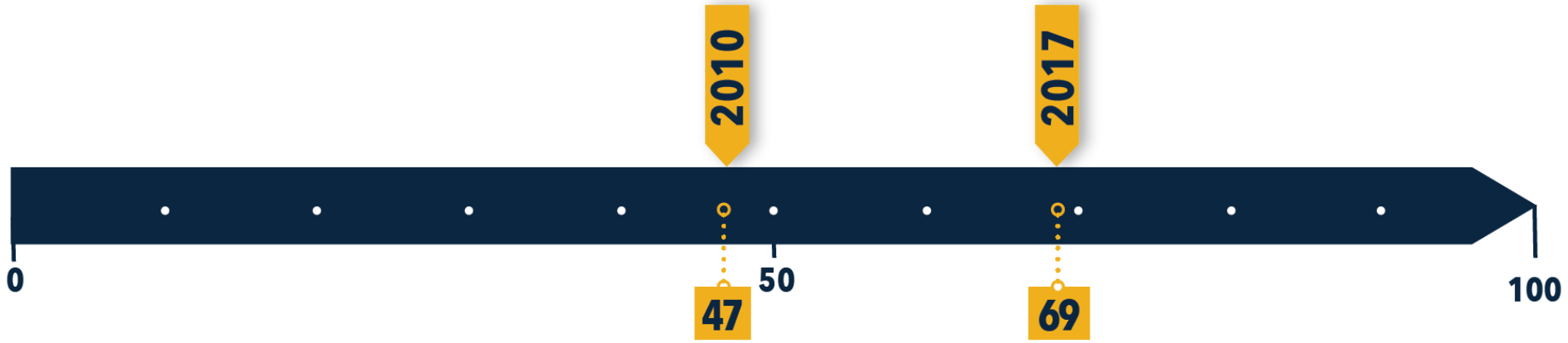


LEBANON RESULTS

RISE 2017 results



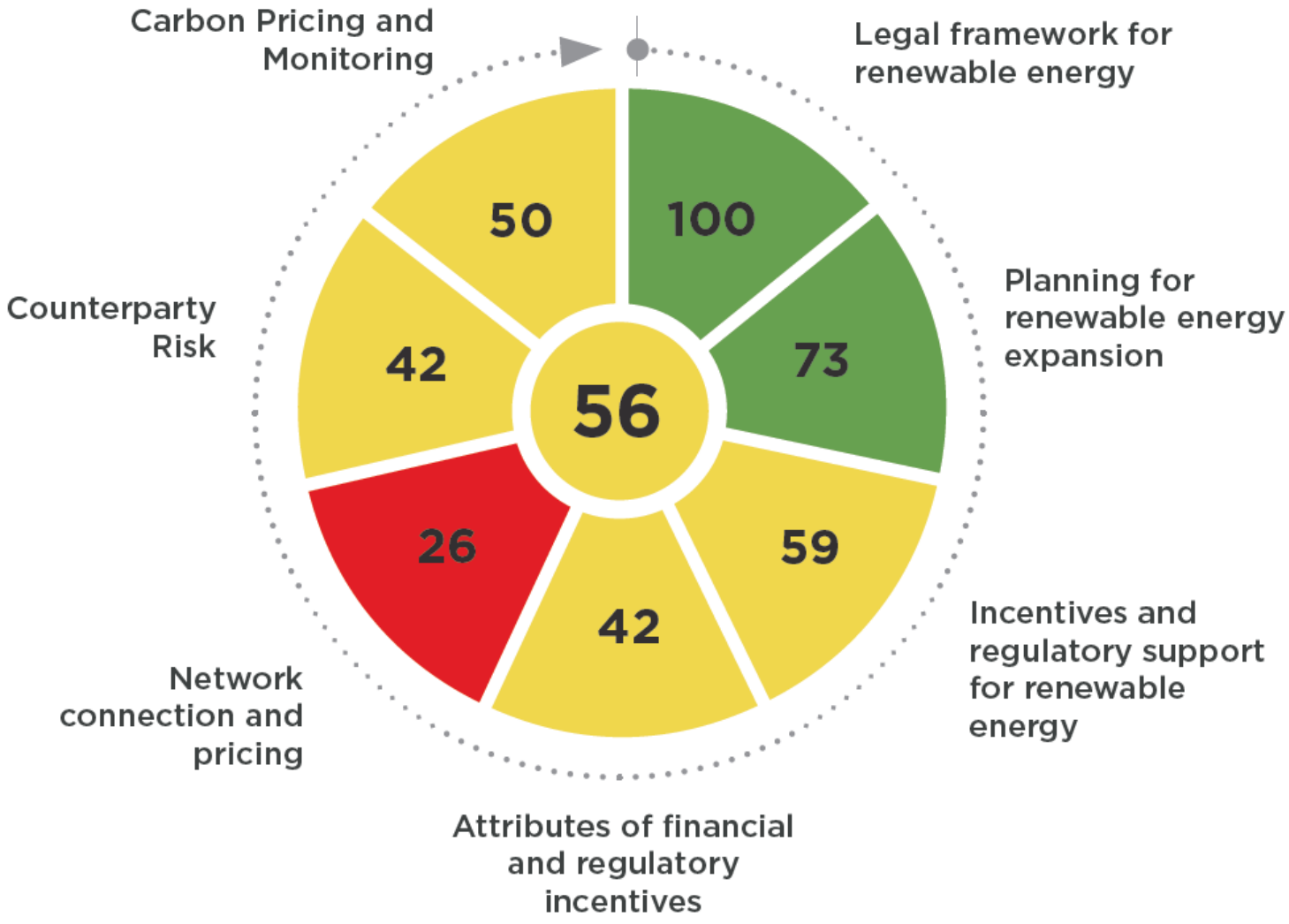
Evolution of Lebanon RISE score over time



LEBANON RESULTS

Renewable Energy

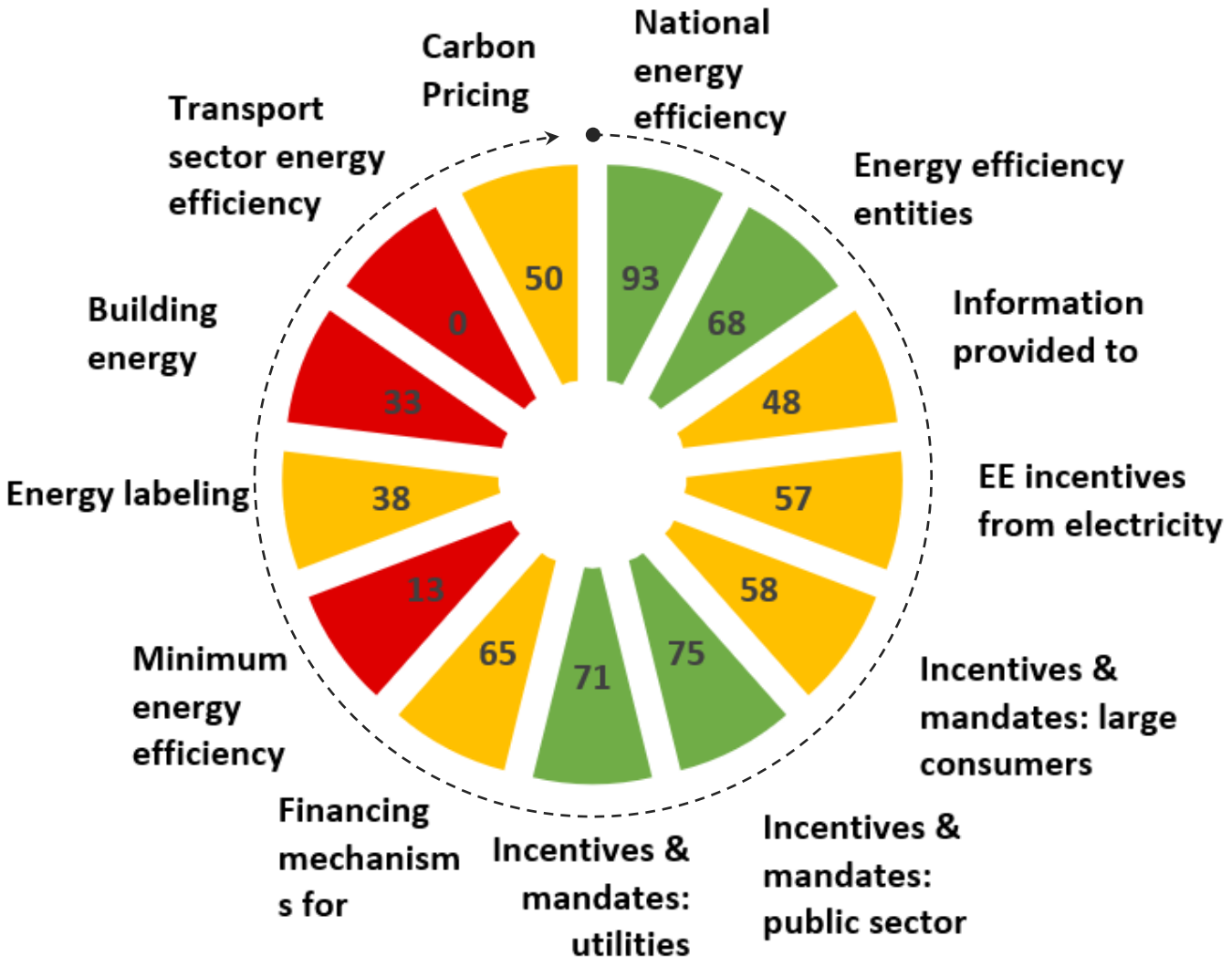
- Lebanon has a sound legal framework allowing private ownership of renewable energy, but the rules are conducive only for large generators, and small ones do not favorable conditions.
- There is a lot to do to improve the renewable energy grid integration process.
- Renewable energy regulations are not considered for the transport sector.
- Lack of utility transparency and monitoring.



LEBANON RESULTS

Energy Efficiency

- Energy efficiency targets set for electric utilities, residential, commercial and industrial sectors.
- Good institutional setup for promoting energy efficiency: setting strategies, regulatory and policy interventions.
- Practically no energy efficiency performance standards set for any product category.
- No building energy efficiency codes for residential and commercial sectors for neither new nor renovated buildings.
- Energy efficiency regulations are not considered for the transport sector.



THANK YOU

Come and visit:

http://rise.esmap.org