



Side event on “Interlinkages between SDG 7 (energy) and SDGs 4, 8, 10, 13, 16”

16.15-17.45, Friday, 12 July 2019
S1522-S1523, UNHQ

Economic and Social Commission for Western Asia

“Inter-related SDG 7 and SDG 4, 8, 10, 13, 16: challenges and prospects in the ESCWA region”



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ESCWA

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SDG 7: affordable and clean energy in relation with other SDGs

7.1 By 2030, ensure universal access to affordable, reliable and **modern energy services**

7.2 By 2030, increase substantially the share of **renewable energy** in the global energy mix

7.3 By 2030, double the global rate of improvement in **energy efficiency**

Interlinkages between **SDG7** and SDGs 4, 8, 10, 13 & 16 through a **RBA**

Capacity building skills for low-carbon future. Low-Carbon education institutions

4 QUALITY EDUCATION



New jobs and skills with adoption of new energy technologies

8 GOOD JOBS AND ECONOMIC GROWTH



Energy efficiency & distributed renewable energy deliver lower cost access wellbeing and economic services

10 REDUCED INEQUALITIES



Direct reductions in GHGs from renewable energy and energy efficiency

13 CLIMATE ACTION



Redeveloped energy systems and institutions to deliver sustainability and SGD outcomes

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Arab region key challenges: facts on the ground

- Natural resources unequally distributed
- High vulnerability to climate change
- Water scarcity
- Land degradation
- Food insecurity
- High dependency on fossil fuel
- Increasing vulnerability to international energy price fluctuations
- Subsidized prices for energy, electricity and water
- Limited access to finance and technology
- Armed conflict, regional instability and mass migration
- Undeveloped rural areas, mostly in the least developed countries
- Rising urbanization and unequal access to modern energy and basic services (education, healthcare, drinking water, decent jobs ...) are exacerbating the urban-rural divide



**Inclusive and integrated approach for natural resource management
and to build resilience to climate change**

KEY FACTS IN NUMBERS – Are we on track in the ARAB REGION?

Near-universal access to modern energy but very slow progress in energy efficiency and a marginal role of renewable energy

Electrification

- **92.5 per cent** in the Arab region is electrified.
- **30 million** still remain without electricity access. Mainly in three LDCs with only **50%** deficit in rural.

Clean cooking

- Access to CFTs is encouragingly high in the Arab region with **90.3%** in 2017.
- **37.5 million** people still lack access to CFTs, mainly in rural LDCs and conflict areas.

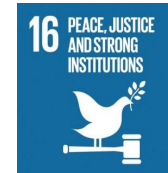
Renewables

- RE share has been plateauing at around **10.2%** of the region total final energy consumption since 2010,
- The share of Solar, Wind and hydro power lies at only **19%** of the region's RE total.

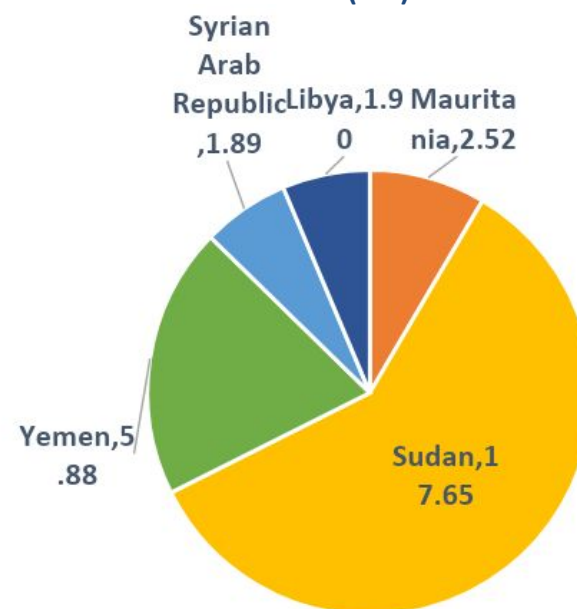
Efficiency

- **2nd** lowest energy intensity of the world's regions, largely an artefact of its fuel mix based on widespread efficient use of gas.
- **Transport** remains by far the most energy-intensive sector, followed by industry and agriculture.

Lack of secure, clean and affordable energy holds many dire consequences on access to basic health services, education, sanitation, and ultimately economic opportunities.

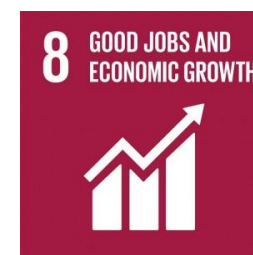


Arab region's electrification access-deficit in population numbers (mn)



- The unparalleled escalation of conflict and instability in Iraq, Libya, Syria and Yemen since 2014 has had devastating effects on energy access in the Arab region.

ESCWA Regional Initiative for Promoting Small-Scale Renewable Energy Applications in rural areas of the Arab Region



DRIVER

INCLUSIVE , SUSTAINABLE, ENVIRNMENTAL AND ECONOMIC REVIVAL & DEVELOPMENT OF THE ARAB RURAL COMMUNITIES

PILLARDS

RE Technologies

- Effective/innova tive RE-Small scale decentralized and modular, energy systems.
- Water-Energy-F ood nexus
- Access to productive resources, appropriate and reliable services.

Human Capacity

- Model based on knowhow
- Trainings, Knowledge skills/Advisory Services.
- Brining change among rural community from resource poor living standards to reliable, affordable and modern sources of energy.

Women's Empowerment & Social inclusion

- Economic power in rural women's hands
- Female mentor
- Participative and bottom-up approach

Entrepreneurial development

- Economic transformation, Environmental and socio-economic development priorities
- Entrepreneurial jobs in productive sectors
- Spawn energy-based enterprises around RE based service providers

Policy and institutional Framework

- Pro-poor investments and private sector involvement
- Synergies among national/regional stakeholders.
- Innovative incentive mechanisms.

Cross Cutting

Human Rights, Gender equality, resilience to Climate Change

FOND ATION

Untapped RE Resource, high Unemployment, chronic poverty, water scarcity, food insecurity, energy poverty and vulnerability to climate change of the rural communities of the Arab countries

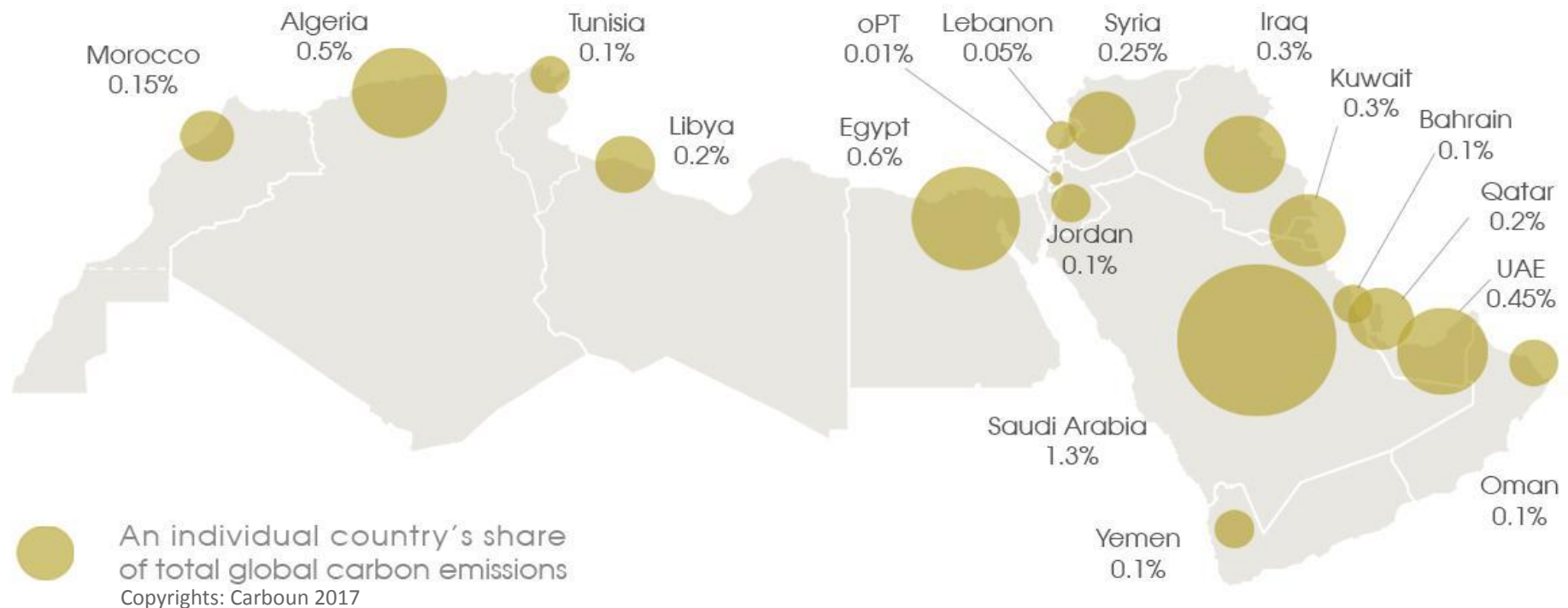
7 AFFORDABLE AND
CLEAN ENERGY



13 CLIMATE
ACTION



While climate change has not in the past played a significant role in Arab countries' discourse on energy use,today the Arab region is one of the regions of the world most vulnerable to climate change

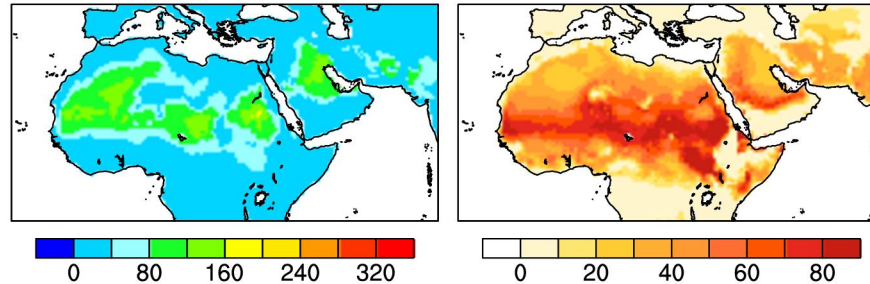


Historically low rate of energy use and carbon emissions: Arab region constitutes 5% of the world's population, emits just under 5% of global carbon emissions

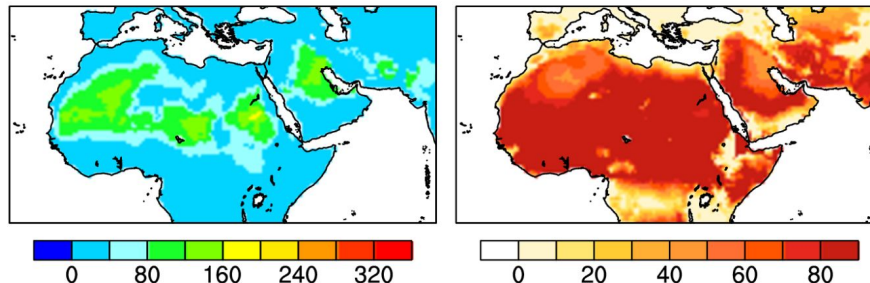
Extreme Climate Indices

Changes in Temperature Indices – Summer Days >40

Summer days, $T_{max} > 40^{\circ}\text{C}$ (SU) | ANN | CTL: 1986-2005 | SCN: 2081-2100 | rcp45 (nr of days)



Summer days, $T_{max} > 40^{\circ}\text{C}$ (SU) | ANN | CTL: 1986-2005 | SCN: 2081-2100 | rcp85 (nr of days)



- Changes in the Summer days with $T_{max} > 40^{\circ}\text{C}$ (i.e. annual number of days when $T_{max} > 40^{\circ}\text{C}$) for the period 2081-2100 for RCP 4.5 and RCP 8.5 compared to the baseline period 1986-2005 for the ensemble of the three projections.
- The results show strong warming in the Sahara and Central Peninsula Areas for RCP8.5. The increase in the extreme temperature on the coastal areas would be lower than the central parts of the region for both scenarios.

Extreme Climate Indices and Disaster Risk Reduction

- **Extreme weather events** can have **severe impacts** on human health, built infrastructure, the natural environment, the transportation sector and the economy at large.
- Extreme climate indices and their seasonal projections can provide a **better understanding of climate impacts** and can help to **inform action for reducing disaster risks** at smaller scales of analysis.
- Future projections for several extreme climate indices were studied under RICCAR until the end of the century for different GHG emission scenarios (RCP4.5 moderate scenario, RCP8.5 high emissions scenario) in the Arab region



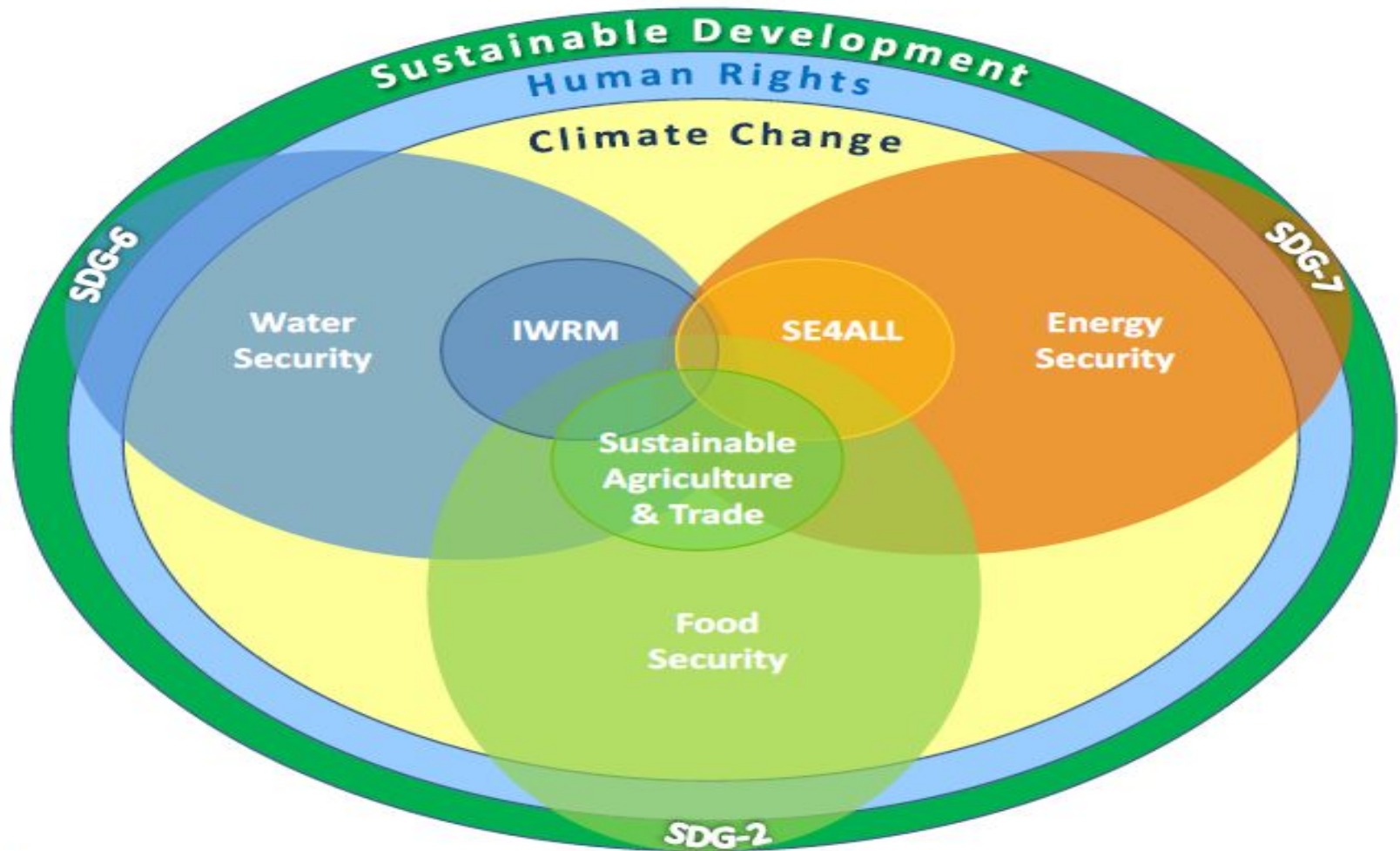
Floods in Gaza, 2011



Damages in Muscat after Cyclone Gonu, 2007

Extreme climate indicators			
Extreme temperature indices		Extreme precipitation indices	
Index	Full name	Index	Full name
SU	Number of summer days	CDD	Maximum length of dry spell
SU35	Number of hot days	CWD	Maximum length of wet spell
SU40	Number of very hot days	R10	Annual count of 10 mm precipitation days
TR	Number of tropical nights	R20	Annual count of 20 mm precipitation days
		SDII	Simple precipitation intensity index
Drought indicators		Flood indicators	

ESCWA Framework for the Water-energy nexus within the context of the 2030 Agenda for sustainable development



Inclusive national development pursuing policies that embrace the principles of universality and inclusivity



ESCWA

Core Functions

To serve as the:

- **Think Tank** of the Arab region – by undertaking innovative research and supporting quality data collection and analysis for evidence-based policy;
- **Advisor** to the Arab region – by providing regional, sub-regional and national capacity building and technical advisory services to member States; and
- **Voice** of the Arab region – by creating regional platforms for deliberation and consensus building that feed global fora and transform the aspirations of

- Scale up actions in support of SDG7 achievement and intensify engagement through support to VNRs and other outreach platforms.
- Vehicle the priorities of the region to the global level through the: HLPF, Regional and International Forums, TAG SDG7, UN-Energy.
- Partner with SDG7 Custodian agencies on the SDG7 Global Report and develop the “SDG7 Tracking Report for the Arab Region.
- Develop Knowledge exchange platform through ESCWA Committee on Energy and the ESCWA Expert Group on Fossil Fuels.
- Develop Regional initiatives and projects on upscaling EE and promoting use of RE and trainings on tracking SDG7 indicators.
- Establish jointly with SEforAll and IsDB the SEforAll Middle East Hub.
- Implement field projects through an integrated approach that address natural resource management, reduce inequality, address climate change challenges.

Key Policy Recommendations from the ESCWA preparatory meetings on energy, water and climate change for 2018 – 2019 AFSD and HLPF:

Priority Actions

1. Develop **suitable/proactive** policies & institutional frameworks and ensure **long term commitment**
2. **Reform** domestic energy and water **pricing** and utility market
3. Manage natural resources more **sustainably**
4. Boost economic **diversification** & boost energy **productivity**
5. Increase **private sector** involvement
6. Develop **local manufacturing** of clean energy technologies components
7. Enhance **interregional cooperation**, grid **interconnection** and share/learn from best practices.
8. Develop institutional **capacity**, **transparency** and **accountability**
9. Strengthen local **governance** and **communication**
10. Reinforce the role of **Civil Society**, **Gender equality** and **stakeholder engagement**.

Means of Implementation

- Promote **investments** in clean technologies / financial market & local market enablement
- Develop/reinforce **technology** dissemination & Research and Innovation
- Initiate/ reinforce **capacity building** programs
- Develop/reinforce **energy data, indicators** and analysis systems

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THANK YOU