

CLIMATE & FINANCIAL STABILITY ARE INTERDEPENDENT PUBLIC GOODS

Clean Energy Business Council
2 March 2020

Clean
Energy
Business
Council



مجلس
صناعات
الطاقة
النظيفة

Middle East & North Africa
الشرق الأوسط وشمال إفريقيا

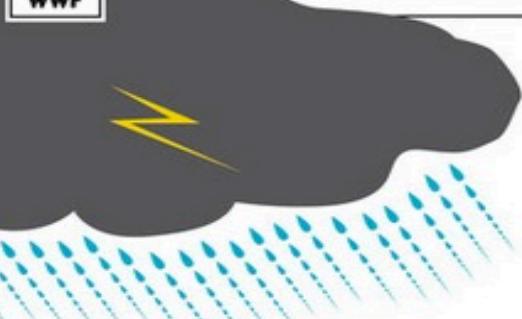
Dr. Nasser Saidi

Agenda

- ❑ Major Issues Relating to Climate Change
- ❑ Climate Action: Fiscal, Regulatory Tools & Financing (public, private)
- ❑ Climate Change in the MENA/ GCC region is an Existential Risk
- ❑ Role of the Clean Energy Business Council



CLIMATE RISKS: 1.5°C VS 2°C GLOBAL WARMING



EXTREME WEATHER

100% increase in flood risk. | vs | 170% increase in flood risk.

SPECIES

6% of insects, 8% of plants and 4% of vertebrates will be affected. | vs | 18% of insects, 16% of plants and 8% of vertebrates will be affected.

ARCTIC SEA ICE

Ice-free summers in the Arctic at least once every 100 years. | vs | Ice-free summers in the Arctic at least once every 10 years.

WATER AVAILABILITY

350 million urban residents exposed to severe drought by 2100. | vs | 410 million urban residents exposed to severe drought by 2100.

PEOPLE

9% of the world's population (700 million people) will be exposed to extreme heat waves at least once every 20 years.

28% of the world's population (2 billion people) will be exposed to extreme heat waves at least once every 20 years.

SEA-LEVEL RISE

46 million people impacted by sea-level rise of 48cm by 2100. | vs | 49 million people impacted by sea-level rise of 56cm by 2100.

COSTS

Lower economic growth at 2°C than at 1.5°C for many countries, particularly low-income countries.

OCEANS

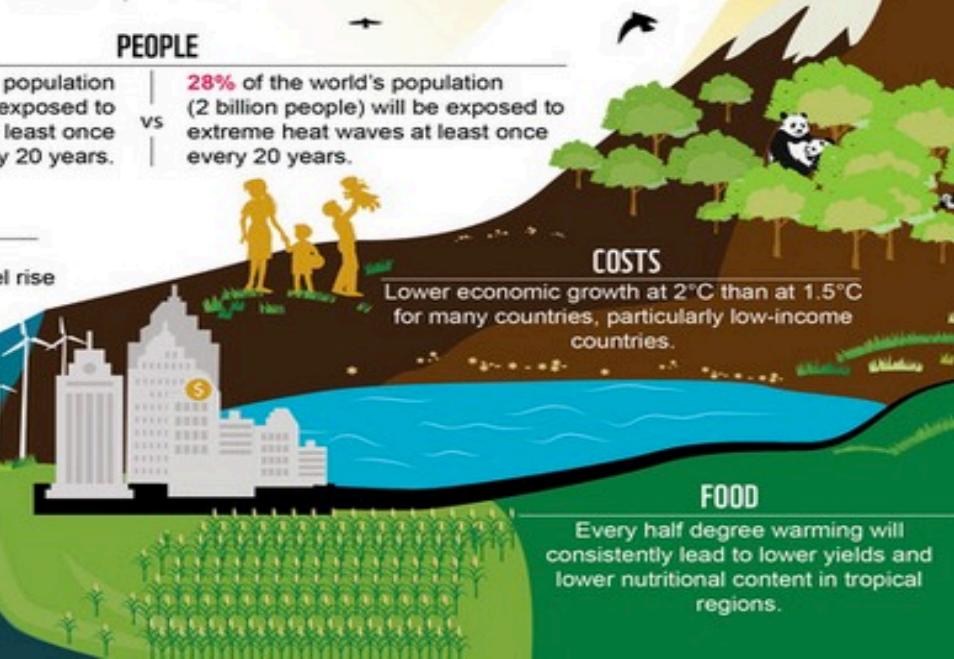
Lower risks to marine biodiversity, ecosystems and their ecological functions and services at 1.5°C compared to 2°C.

FOOD

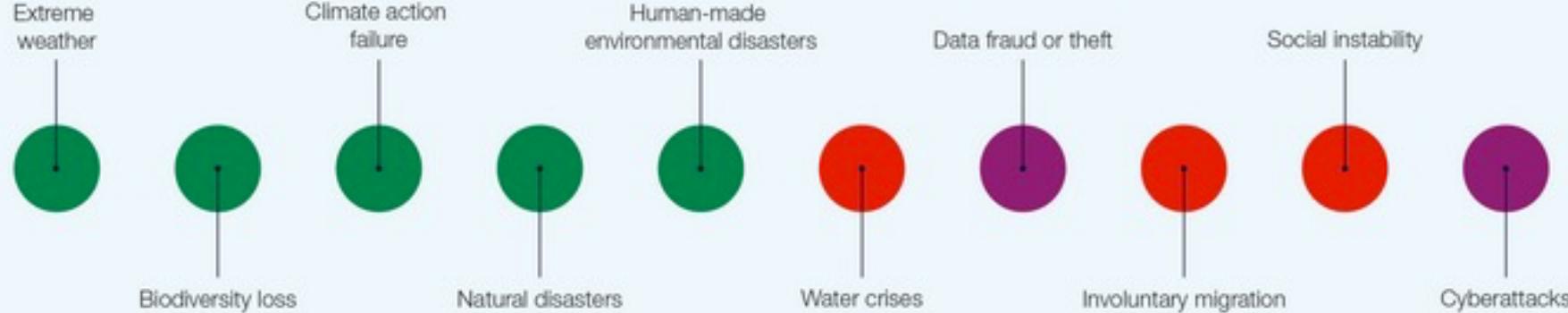
Every half degree warming will consistently lead to lower yields and lower nutritional content in tropical regions.

CORAL BLEACHING

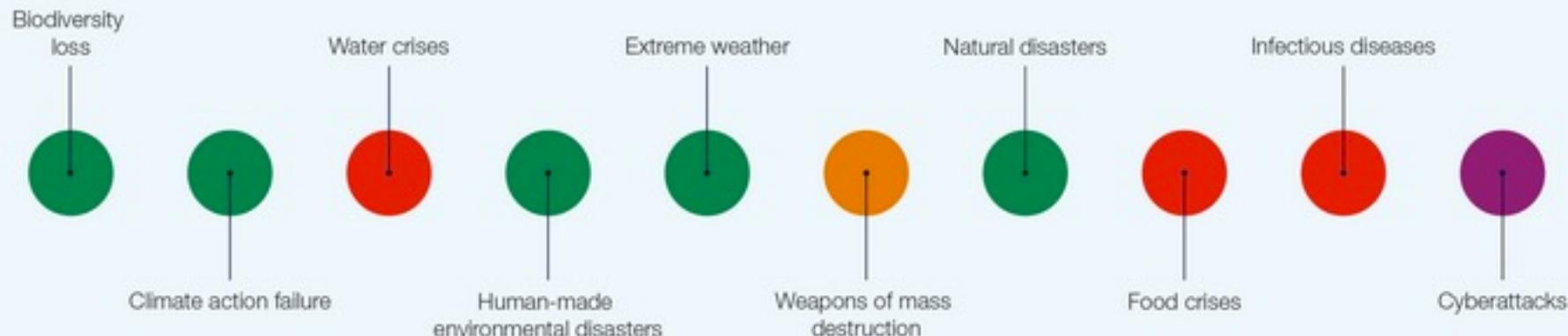
70% of world's coral reefs are lost by 2100. | vs | Virtually all coral reefs are lost by 2100.



Climate-related issues dominate top 5 long-term risks in terms of likelihood...



& 4 out of 5 long-term risks in terms of impact!



Climate Change Poses an Urgent Threat to Economic Life

(*a non-exhaustive list*)

Physical Effects

- Increasing frequency and intensity of extreme weather events/ natural disasters
- Rising temperatures, sea levels => climate migrants
- Degrading Human health & productivity

Businesses

- Risks to infrastructure & supply chain operations
- Uncertainty in price of resources for production, transport & insurance
- Products could become obsolete or lose market
- Risk of damaged reputations & stakeholder relations

Financial Services Industry

- “Green Swan” events i.e. climate-related physical and transition risks - could trigger next financial crisis
- Risk of “stranded assets” on balance sheets
- Difficulty in assessing future climate-related risks (can’t extrapolate historical data)

In **2018**, 215 of world's 500 biggest corps (incl Apple, JPMorgan, Nestle and 3M) reported **climate-related financial risks of just under \$1trn**.

UN's IPCC: **annual investment of \$ 2.4trn until 2035 needed in energy system alone** to limit temperature rise to <1.5 °C fm pre-industrial levels (**2.5% of world's economy**).

Climate Risk Mitigation Creates New Opportunities: “Green New Deals”

-  Create new business lines e.g. invest in natural capital, water, soil, air, living organisms
-  Improve climate resilience via heat-resistant building material, drought-resistant seeds, water-harvesting services, low-drip irrigation
-  Opportunities in clean energy, resilient and green buildings & energy efficiency
-  Construction of green infrastructure and more resilient coastal infrastructure
-  Carbon capture and sequestration and uses of captured CO₂
-  Include ESG factors into investment processes; insurance premia-linked financing

Emerging countries are highly vulnerable to effects of climate change, play a vital role in global climate action, but need support from more developed economies

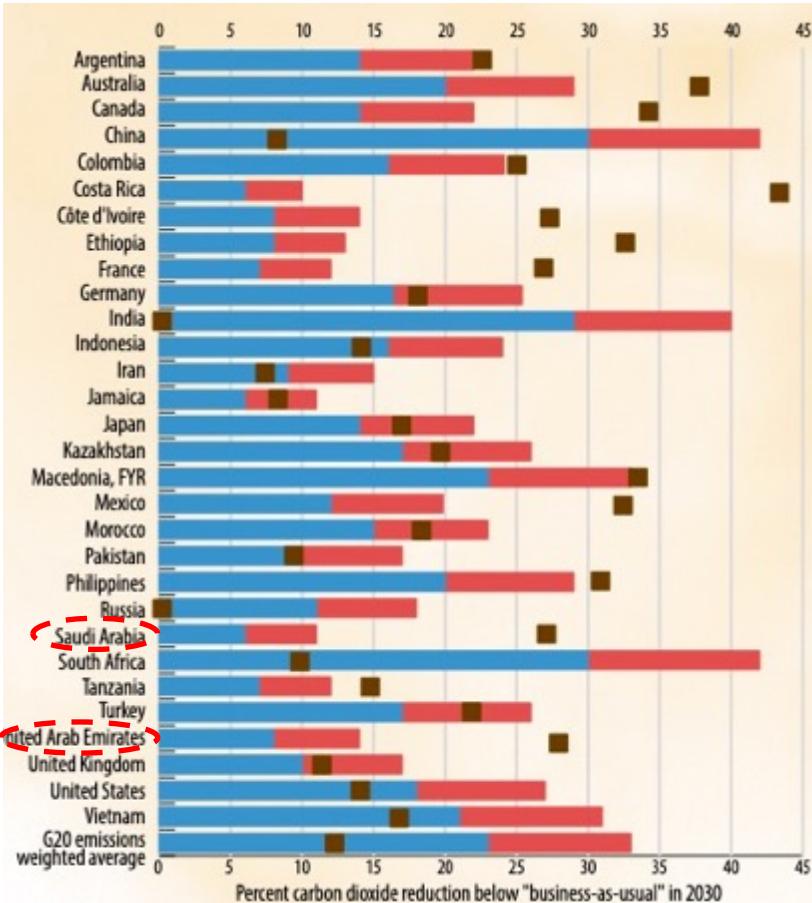
Fiscal Measures to counter Climate Change

- Well-designed fiscal policies (i.e. environmental taxes) can mitigate climate change while raising well-being (spending on health, education..)
- A higher price tag on carbon emissions: most powerful & efficient tool
- Environmental taxes can have positive effects on poverty & equity + help firms become more productive
- Proactive fiscal policies can help nations become more climate-resilient (e.g. invest in preventive adaptation measures, seek ways to transfer climate risks to markets)
- Broad support (e.g. via a public outreach strategy) is critical to the success and effectiveness of fiscal policies for climate action
- Technology + Fiscal & Regulatory Policies + Financing = Necessary to mobilize investment in Clean Energy & CleanTech

Carbon Taxes: most powerful way to combat climate change

- Why carbon taxes?
 - Effective tool for meeting domestic emission mitigation commitments
 - Can raise significant amount of revenue
 - Can generate significant domestic environmental benefits
 - Straightforward to administer
- About 50 countries have a carbon pricing scheme in some form
- But global average carbon price is currently only \$2 a ton, far below what the planet needs
- Sweden is a good example: carbon tax is \$127 per ton; reduced emissions 25% since 1995, while economy has expanded 75% since then

Carbon tax as high as \$70 per ton would fall short of what is needed in KSA & UAE!

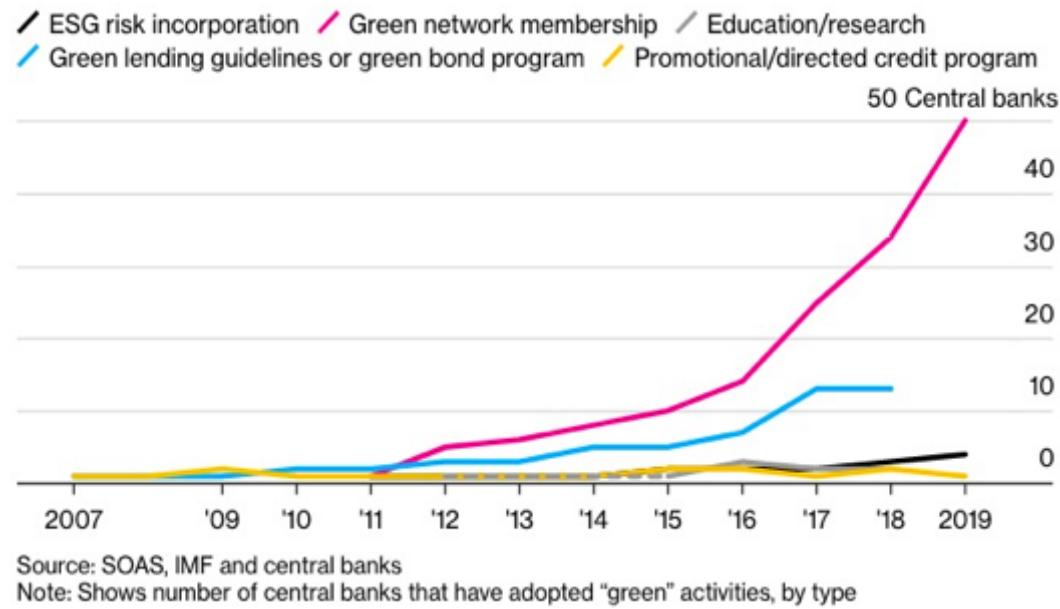


Central Banks/Regulators: Financial & Climate Stability are Two Increasingly Interdependent Public Goods

Central banks/regulators can:

- Proactively promote *long-termism* by supporting the values or ideals of sustainable finance
- Introduce climate risk into *macro-prudential risk framework*
- Call for an increased role for fiscal policy to support ecological transition
- Increase cooperation on ecological issues among international monetary & financial authorities
- Support initiatives to promote greater integration of climate and sustainability dimensions within corporate & national accounting frameworks

Central banks are starting to take the environment into account



Source: "The green swan: central banking and financial stability in the age of climate change", BIS, Jan 2020

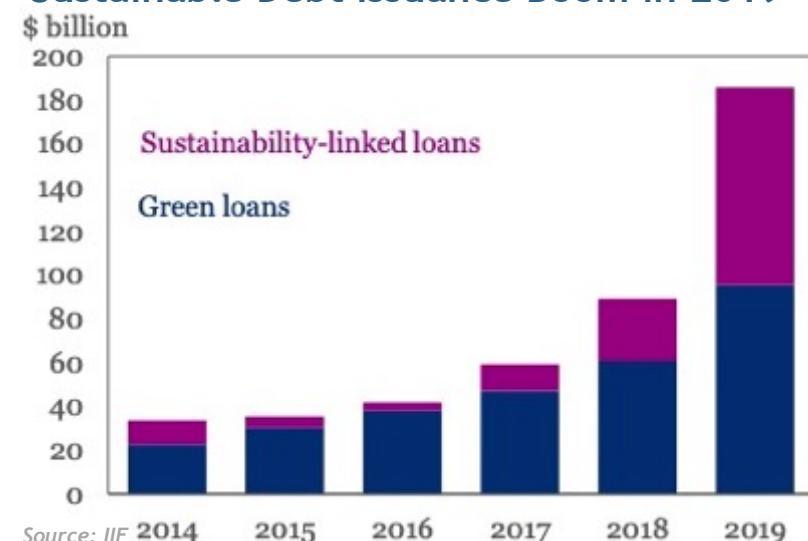
Sustainable Finance enables & complements but is not a substitute for climate policy action

- Developing & scaling up sustainable capital & debt markets is crucial for improving the climate resilience of the global economy and financial system
- Sustainable debt universe close to \$1.5 trn; green bonds account for 70%+ of total; but still accounts for <5% of global bond issuance. Represents a \$100-150bn Revenue Opportunity for financial industry

Challenges for green investments:

- Lack of liquidity + limited access to local green bond issues
- Issuer diversification
- Establishing green bond standards
- Greenwashing i.e. misleading marketing or labeling that suggests a product, service, or company is “green” when it may not be

Sustainable Debt Issuance Boom in 2019

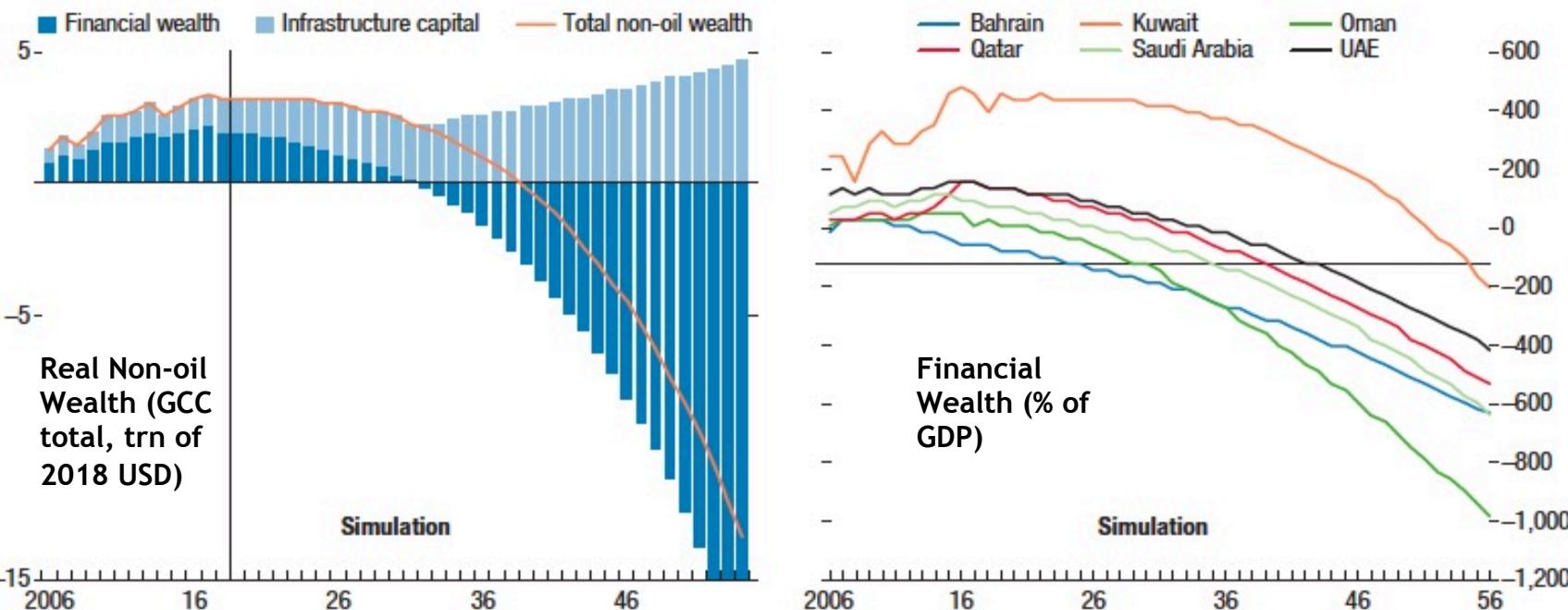


Why should Climate Change worry the GCC / Middle East?

- Growing desertification leading to population displacement: social-political turmoil
- Water scarcity: climate-related water scarcity will cost the region 6 to 14% of its GDP by 2050, if not earlier (WB)
- Widespread droughts => “Water Wars”
- Extreme heat making habitats uninhabitable for life (human, animal, plant)
- Reliance on desalinated water for domestic use (large carbon footprint as the region is reliant on energy-intensive thermal desalination plants)
- Threat of rising sea levels (24 port cities at risk in MENA)
- High population growth rates (leading to a doubling of population by 2050) + rapid urbanization
- Oil producers face an existential threat: stranded assets

GCC face two existential threats: Oil becoming a “Stranded Asset” & Policies depleting Financial Wealth

GCC's aggregate Net Financial Wealth (estimated at \$2trn at present) could be depleted by 2034. Oil & Gas ; non-oil wealth would deplete within another decade



State of Climate-Related Financial Disclosures: a long way to go for MENA companies!

Recommendation	Recommended Disclosure	Asia Pacific	Europe	Middle East and Africa	North America	South America
		(484)	(363)	(83)	(163)	(33)
Governance	a. Board Oversight	23%	36%	26%	20%	17%
	b. Management's Role	27%	44%	22%	21%	13%
Strategy	a. Risks and Opportunities	29%	59%	24%	51%	39%
	b. Impact on Organization	44%	61%	23%	40%	41%
	c. Resilience of Strategy	5%	13%	3%	7%	4%
Risk Management	a. Risk ID & Assessment Processes	23%	45%	17%	26%	18%
	b. Risk Management Processes	22%	41%	16%	33%	32%
	c. Integration into Overall Risk Management	10%	24%	7%	8%	8%
Metrics and Targets	a. Climate-Related Metrics	39%	62%	18%	38%	36%
	b. Scope 1,2,3 GHG Emissions	25%	48%	13%	37%	33%
	c. Climate-Related Targets	32%	58%	17%	33%	34%

The numbers in parentheses represent the size of the review population

Legend:



Source: Task Force on Climate-related Financial Disclosures: Status Report, Jun 2019

How can the Middle East Adapt?

Institutional/Fiscal

- Elimination of subsidies
- Massive investment in clean energy & clean technology
- Adopt a Zero Net Emissions Policy
- Introduce Carbon Taxes
- Build capacity to support the creation and development of climate change policy and regulatory experts

Financing

- Use carbon tax revenues to increase energy efficiency + fund decarbonization strategies
- Support for small-scale players and installations
- Facilitate New Energy Financing (green bonds & sukuk)
- Develop Green Banks to fund the private sector (from energy efficiency to retrofitting, to climate risk mitigation investments)

Adopt technological innovations

- Invest in CE & CT R&D
- Implement Blockchain (for power/ grid chain mgt) & AI to increase energy efficiency

What is the Way Forward?

- **Governance:** Firms need to embed the consideration of climate risks fully into governance frameworks, including at the board level, and assign responsibility for oversight of these risks to specific senior managers
- **Risk management:** Firms must consider climate change in accordance with their board-approved risk appetite
- **Regular use of scenario analysis:** This is necessary to test strategic resilience
- **Appropriate disclosure of climate risks:** Firms must develop and maintain methods to evaluate and disclose these risks
- **Bottomline:** Policy frameworks with the greatest impact will be **time-consistent** (not arbitrarily changed); **transparent** (with clear targets, pricing, and costing); and **committed** (through treaties, nationally determined contributions, domestic legislation, and consensus)

Clean Energy Business Council

- **What Is the CEBC?** The CEBC is an NPO, NGO, membership association bringing together leading local, regional and international businesses, organizations, government entities and individuals in the MENA clean energy & clean tech sector
- **Our Purpose:** CEBC seeks to be the leading regional forum focused on raising awareness and supporting the development, investment and deployment of clean energy & tech in the MENA region
- **Our Focus Areas**
 - Energy & Water Efficiency
 - Renewable Energy Investment
 - Implementation of CE & CT - Financing, Legal, & Structural Mechanisms
 - Social Impacts of CE and CT Development

CEBC Activities & Working Groups

- **CEBC Working Groups** - Climate Finance, Future Mobility, Energy Efficiency and Women in Clean Energy (WICE)
- **Advocacy** - Endorse adoption of CE & CT policies by public authorities
- **Research** - Conduct & partner on research efforts to drive CE & CT solutions
- **Leadership Series** - Provide forum events for dialogue between policy makers and industry leaders
- **Collaborations** - IRENA, UNEP, WB/IFC, DEWA, EU-GCC CE Network
- **Maintain geographic database of 100+ renewable energy projects** from throughout MENA
- **Country Missions** - Initiate discourse on CE & CT policy frameworks with government stakeholders in MENA countries
- **Outreach events** - Host workshops and seminars throughout the year on a range of CE and CT topics

Working Groups and Programs

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Working Groups



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Programs



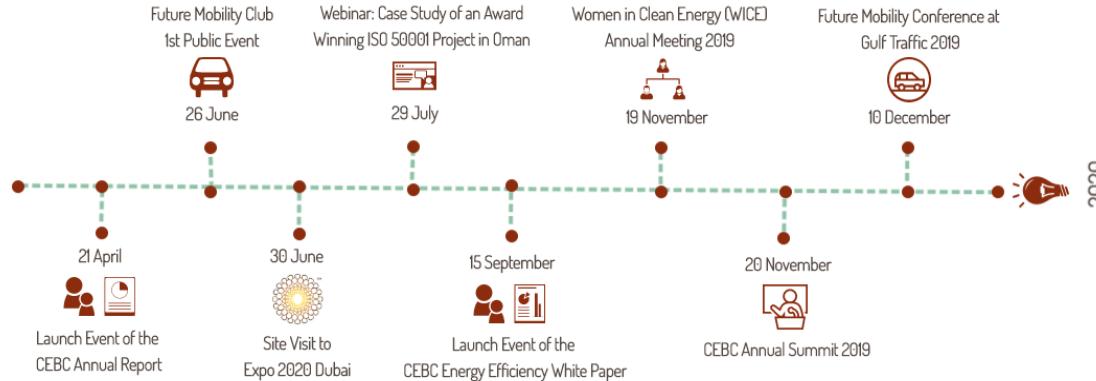
Members



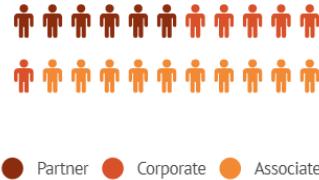
Summary



Timeline



New Members Breakdown



Publications



Kick-off of the Future Mobility Club (FMC)
Currently 20 members



Kick-off of the Climate Finance Working Group
Currently 8 members



Re-launch of the CEBC Women in Clean Energy (WICE) Working Group



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Thank you for joining us!

Become a Member of the CEBC

<http://www.cleanenergybusinesscouncil.com>