

المملكة العربية السعودية
وزارة الطاقة والصناعة والثروة المعدنية



Saudi Arabia Economic Diversification Plans

Ministry of Energy, Industry and Mineral Resources
Cape Town, South Africa

Outline

- **Background on Economic Diversification**
- **Measures Taken by KSA to Manage Climate Change Impact**
- **Conclusion**
- **Discussion**

Background on Economic Diversification

Decision was adopted in Doha “24.cp/18”

- To enable Countries to report their actions and plans for economic diversification actions that have co-benefit of emission reduction and adaptation to climate change
- To enable countries to address their economic diversification as a priority for future emission reduction plans in different economic sectors

Background on Economic Diversification

Economic Diversification in the Paris Agreement

- **Decision 128:** Identifying actions that could significantly enhance the implementation of adaptation actions, including actions that could enhance economic diversification and have mitigation co-benefits;
- **Article 4:** Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans can contribute to mitigation outcomes under this Article.
- **Article 7:** Building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources.

Background on Economic Diversification

- Decision 24/CP.18 introduced international obligations to work on this issue and connect it to our Economic Diversification progress in the Kingdom.
- Since then we have been working to link all climate policy issues as part of Economic Diversification and Adaptation Plans.
- Decision 24/CP. 18 and the Paris Agreement helped the Kingdom integrate climate concerns into Economic Diversification planning and supported the government initiatives which aimed at achieving economic diversification through a sustainable development path

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- **Assessment of Climate Action Impact on KSA**
- **Measures Taken by KSA to Manage Impacts**
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Measures Taken by KSA to Manage Impacts



Establishing a National Center to Address the impact of Climate Change and its action

- Established in 2009
- Raise KSA Climate Resilience
- Implement climate change agreements at the national level
- Analysis of socioeconomic impacts of response measures
- DNA has a strong and effective inter-ministerial and public/private inter-agency platform for coordinating effective responses to climate change issues in Saudi Arabia
- Communicate/update NDCs and submit to UNFCCC
- Annual review of the status of implementation of NDCs for internal purposes
- Prepares/updates National Communication Report & Biennial Update Report
- Awareness at the National Level



Measures Taken by KSA to Manage Climate Change Impact

Establishing a National Center to Address the impact of Climate Change and its action

Integrating Climate Change action within the program of Vision 2030

Each sector development, projects, or measures within a developing sector shall address:



Energy Efficiency



Renewable Energies



Carbon Capture and Utilization/Storage



Utilization of Gas



Methane Recovery and Flare Minimization



Measures Taken by KSA to Manage Climate Change Impact

Establishing a National Center to Address the impact of Climate Change and its action

Integrating Climate Change action within the program of Vision 2030

Integration of Climate Change in all Adaptation Action



Urban
planning



Water and waste
water management



Marine
protection



Reduced
desertification

Measures Taken by KSA to Manage Climate Change Impact

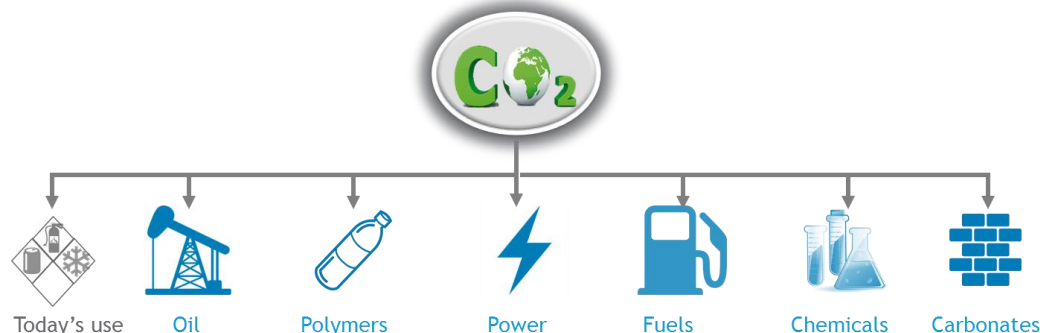
Establishing a National Center to Address the impact of Climate Change and its action

Integrating Climate Change action within the program of Vision 2030

Integration of Climate Change in all Adaptation Action

Focus and invest on R&D
“Emission to Value” (CCUS)

What can we do with CO2 other than sequestration?



- Beverage
- Fire extinguishers
- Dry ice
- Urea
- Blanketing
- Shield gas in welding
- ...
- EOR
- Working fluid for power cycles
- CO2 into chemical or fuels
- Convert CO2 into carbonates

- Program established on 2005 in partnership with the private sector
- Initiated partnerships with 11 global centers of excellence
- Established a fund to invest on all stages of R&D
- Current success: 2 commercial projects, 3 major pilots

Measures Taken by KSA to Manage Climate Change Impact

Establishing a National Center to Address the impact of Climate Change and its action

Integrating Climate Change action within the program of Vision 2030

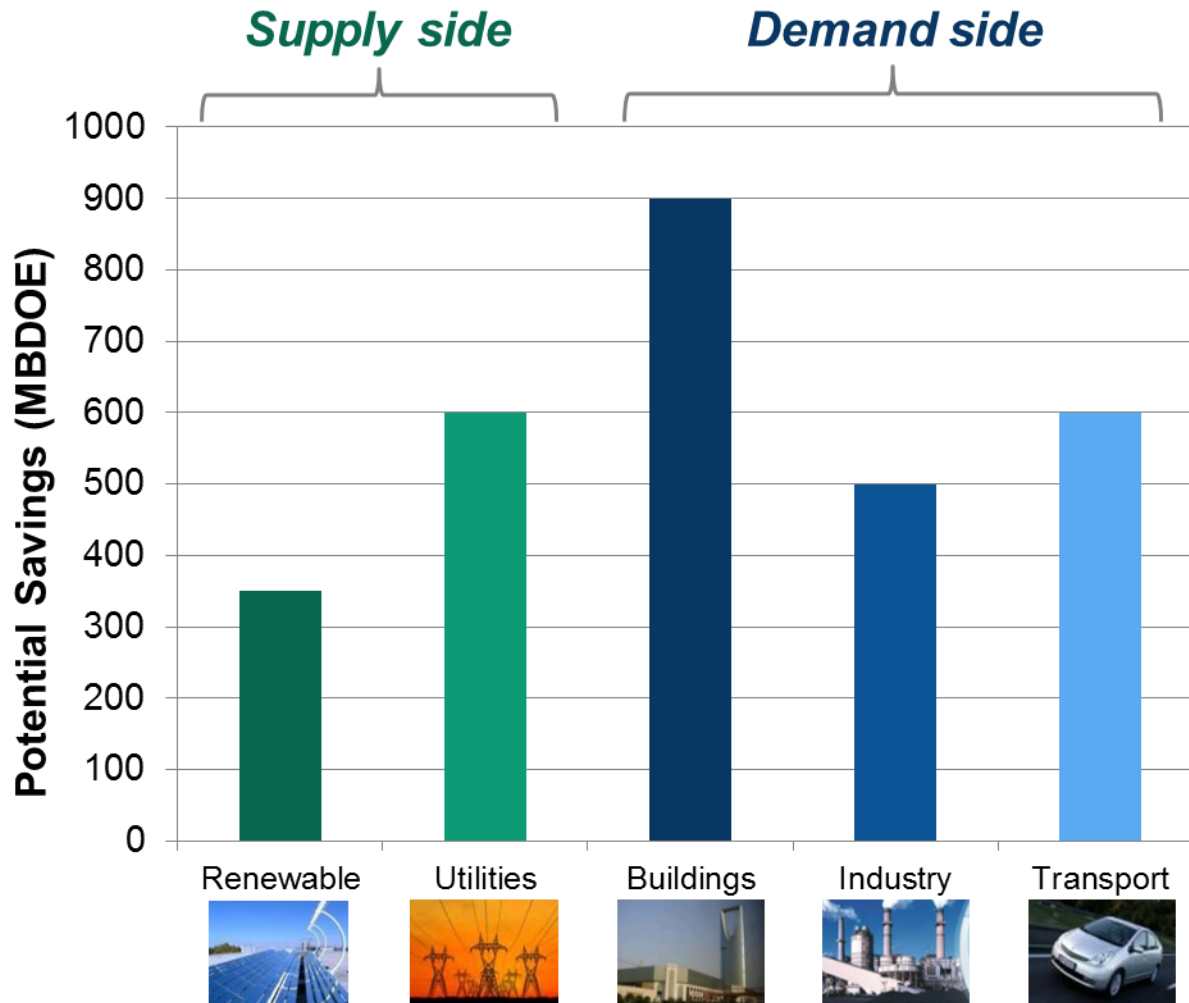
Integration of Climate Change in all Adaptation Action

Focus and invest on R&D “Emission to Value” (CCUS)

International Collaboration

- **Carbon Sequestration Leadership Forum (CSLF)**
- **Clean Energy Ministerial (CEM)**
- **Mission Innovation (MI)**
- **Global Methane Initiative (GMI)**

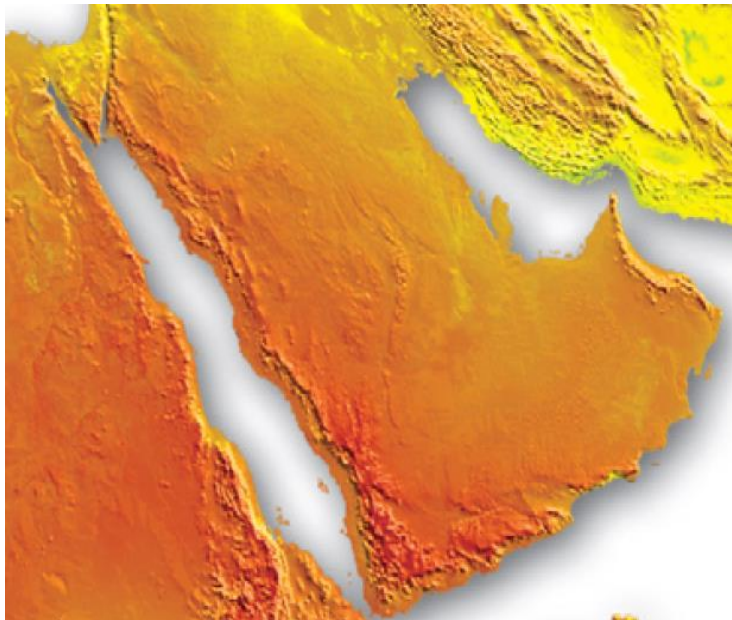
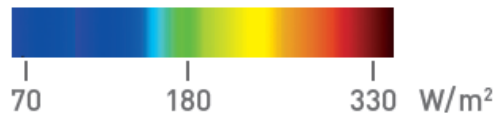
Energy Efficiency programs could deliver substantial savings by 2030



The Kingdom has natural advantages in solar nationwide and wind in certain areas

HIGH SOLAR IRRADIATION

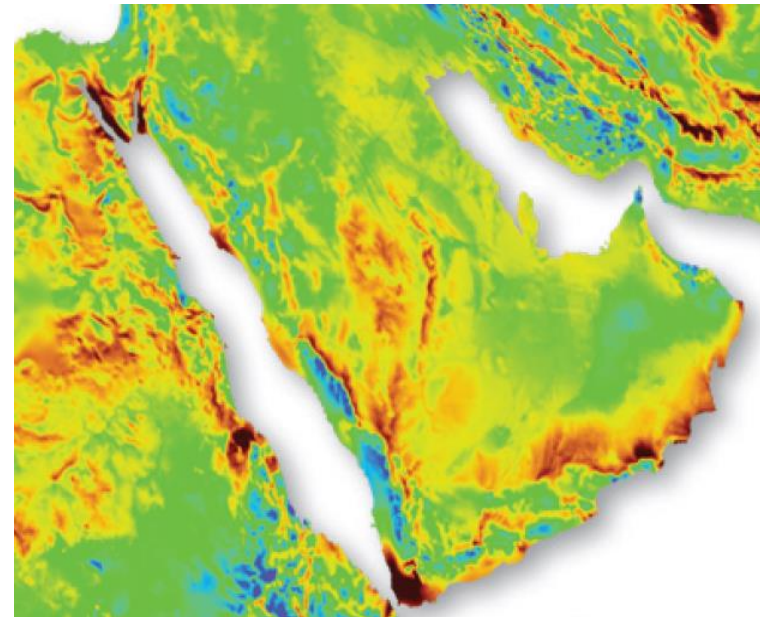
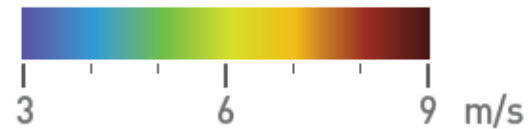
Global Horizontal Irradiance



- Average hours of sunlight: 9.3
- KSA has high solar radiation levels well above the economic threshold for solar power generation

STRONG WIND POTENTIAL IN PLACES

Wind speed



- Threshold for economic sites ~6.9 m/s average wind speed

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Conclusion

- Climate Policy and some economic vulnerabilities present complex challenges to KSA long-term growth
- KSA has a pressing need to diversify economy to build a stable and resilient economy
- Decision 24/ Cp.18 advanced the integration of climate co-benefits into economic diversification
- Recent Government initiatives aim at achieving economic diversification through a sustainable development path that advances climate policy
- Such activities introduce several climate co-benefits leading to energy efficiency, development of clean energy technologies, etc.

Thank You
Thank You