

Climate-smart Public Financial Management MENA Conference

February 26–29, 2024
Cairo, Egypt



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Climate Change and Fiscal Policy in the MENA Region

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Climate effects in MENA and the role of fiscal policy

- Climate effects
- Fiscal policy instruments
- Fiscal policy priorities in support of green transition
 - Fossil fuel subsidies
 - Carbon taxes
 - SOEs/Public investments

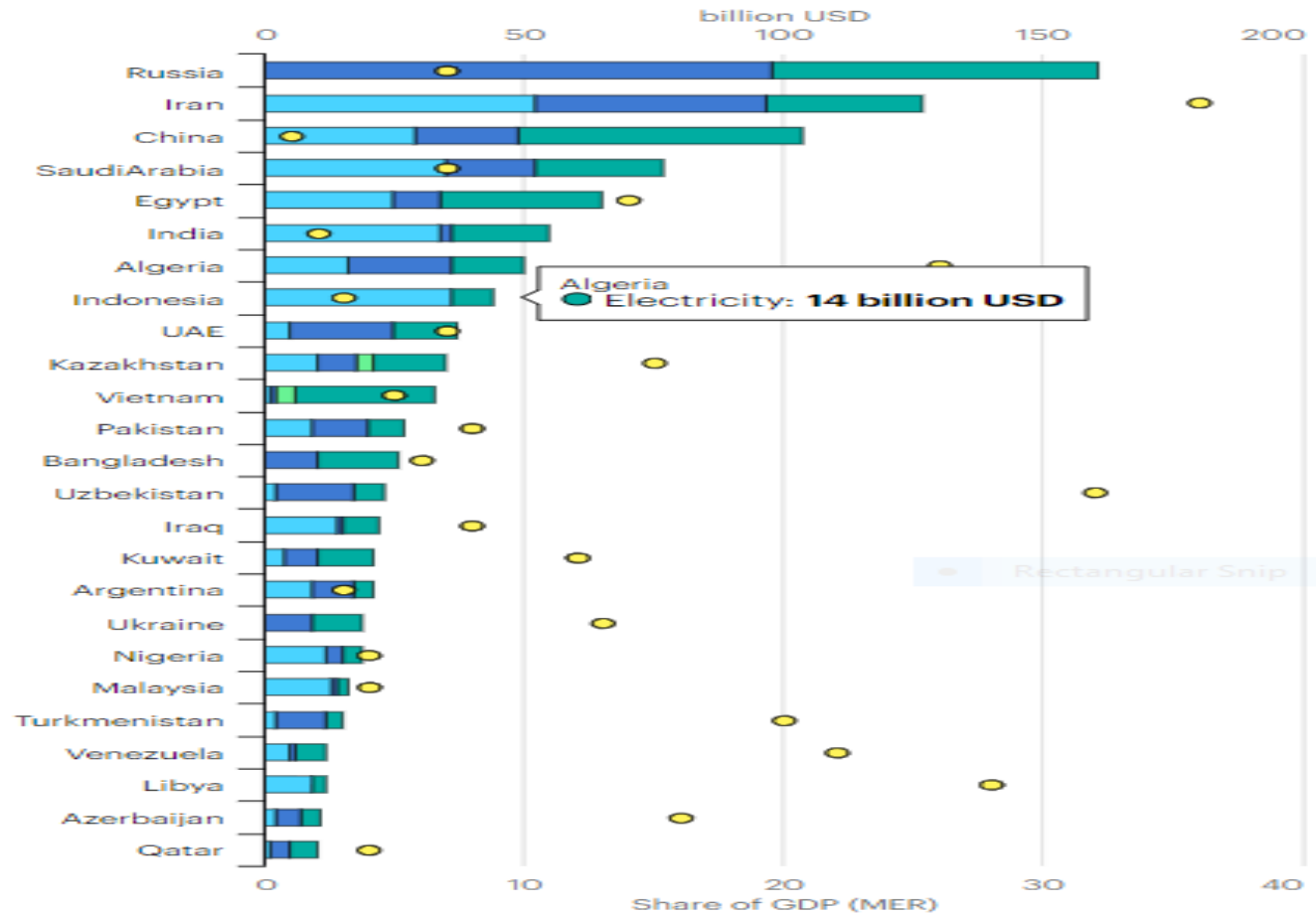


MENA CO2 Emissions Per Capita Are Among the Highest

- Global average per capita CO2 emission was 5 tons in 2016
- By contrast, per capita emissions were: for Qatar (38.14 tons), Kuwait (25.07 tons), UAE (24.33 tons)
- First 3 of the top CO2 emissions per capita in the world came from MENA: (above)
- 6 of the top 11 countries in CO2 emissions per capita came from MENA: above + Oman (20 tons), Bahrain (17.3 tons), Saudi Arabia (15.5 tons)



Fossil Fuel Subsidies in MENA Are Especially High



9 of the top 25 fossil fuel subsidizing countries are from MENA.

Source: International Energy Agency (2021) World Economic Outlook.

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Oil Gas Coal Electricity Total subsidies as % of GDP (MER)



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So, MENA is different because

- Temperatures impact on economic growth is much stronger (negative) than in the rest of the world
- Drought effect on agricultural growth is especially strong, driving global effects
- Water resources in the region are becoming increasingly scarce
- Precipitation has strong positive impact on agricultural growth
- CO2 emissions are very high on a per capita basis
- Fossil fuel subsidies are among the highest in the world



MACROECONOMIC MODELS USED IN THE WB FOR CLIMATE CHANGE ANALYSIS

There is no single macro model that integrates all aspects of climate risk and climate action.



Macro-Fiscal Model (MFMod)

Combination of empirically determined short-run behaviors and a theory-informed long-run effects. Suitable for forecasting and can be used to simulate a range of climate and policy scenarios.



ENVISAGE

Dynamic-recursive Computable General Equilibrium (CGE) models. ENVISAGE is a global model, covering 127 countries and aggregating the remaining into 20 regions.



MANAGE

MANAGE is a highly customizable country-level modelling framework and includes a more extensive modelling of both climate damages and adaptation.



GTAP

Multiregion, multisector, computable general equilibrium model, with associated data. Standard model for analyses of the impact of changes in trade policy. The umbrella framework for many CGE models including ENVISAGE and MANAGE.



Customized CGE

Stand-alone country-specific models. Highly customized but less comparable across countries.

Examples of Macro Policies for Mitigation

Important! Ensuring Debt Sustainability and Medium-Term Fiscal Framework that reflects green policies.

Macro Policies: broad, affecting behavior of agents across sectors and households. Country example (Morocco CCDR October 2022).

1. Remove “brown tax expenditures:” *differential* tax exemptions across sectors causing distortions and adverse incentives to pollute
2. Remove fuel price subsidies for butane (with some exceptions)
3. Design carbon tax on production side compatible with the carbon Border Adjustment Mechanism (CBAM)

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A Taxonomy of **Macro-Fiscal Policy Instruments** for Green Economy Transition

Taxation
Traditional fuel taxes: excises
“Green” tax incentives (e.g., for renewables)
Carbon tax
Expenditure
Subsidies (for renewables, energy efficiency, use of green transport and housing)
Elimination of fossil fuel subsidies
Household cash transfers
Targeted green subsidies
Investments and sector policies
Public investments in renewables, energy efficiency, green transport infrastructure
Project appraisal and cost-benefit analysis taking into account negative externalities of brown activities
Integrated resource (e.g., water) management
Debt and finance
Green bonds (e.g., Egypt)
State-owned enterprises: green regulations & standards
Banking regulation
Creation of carbon markets
Blended finance in support of green activities
Macro-financial regulation
Macro-prudential regulation
Financial sector regulation

Some Green Fiscal Policies Are More Effective than Others: Reducing Fuel Subsidies and imposing carbon tax among MENA Oil Producers is Most Effective in Reducing CO₂; It also Improves greener long-run Growth (MENA CCDRs)

- Fuel subsidy reduction is a win-win win policy for mitigation and “green growth” (from revenue, fiscal, debt, growth, and distributional perspectives)
- For both MENA at large, and MENA oil producers, removing fossil fuel subsidies improves long-run growth. For both, it also reduces CO₂
- For MENA oil producers, evidence from CCDRs show that removing fossil fuel subsidies reduces CO₂ emission so significantly that it is equal to imposing a carbon tax of \$50 per ton of CO₂. This is a larger impact than the equivalent of the “standard” recommendation for 10% carbon tax.
- Carbon tax is also very effective but its implementation may take more time.
- SOEs/Public investments are lagging the green agenda. No single measure will not be enough! A combination is needed, but without subsidy removal and the carbon tax, desired GhG reduction will not be achieved.



THANK YOU

Recent World Bank Country Climate and Development Reports (CCDRs) in MENA

<https://www.worldbank.org/en/country/egypt/publication/egypt-country-and-climate-development-report>

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