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Energy Transition in MENA Must Address the Issue of Fairness

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Introduction

It is essentially impossible to start a conversation about climate change and the Middle East and North Africa (MENA) region without mentioning the topic of energy.

Some of the world's largest oil and gas producers belong to the MENA region and fund nearly their entire budgets through the export of these fossil fuels. Saudi Arabia, the United Arab Emirates (UAE), Iran, Iraq, Bahrain, Libya, and Qatar are just some examples of nations that have energy sectors and economic structures dependent on these funds.

However, the increasing threat of climate change means that the status quo can no longer continue. In fact, the most recent United Nations (UN) emission gap report (United Nations, 2022) called for a 45% reduction in emissions of greenhouse gases (GHG) within the current decade; meaning that drastic changes need to be made to bring about a rapid energy transition.

Last November, world leaders gathered at the UN Conference of Parties climate talks ([COP27](#)) in Sharm el-Sheikh, Egypt to set targets and discuss how to cut emissions. The next conference, COP28, will be hosted by the UAE, one of the world's major oil producers. The fact that the two conferences are taking place in the MENA region is particularly important. These conferences will provide a platform for specific regional concerns such as resource availability (most importantly, water) financial capability, and bandwidth to be brought to attention at the global level as states move away from using fossil fuels.

There is no doubt that global interest calling for greener energy sources such as solar, wind, green hydrogen, geothermal, and even nuclear is gaining momentum; however, rebuilding energy mixes is not a trivial task. As the UN emission gap report shows, even countries with less dependence on fossil fuels have not been able to achieve their mitigation pledges (United Nation, 2022), let alone MENA countries which have invested, relied on, and identified with the production of oil and gas for so many decades (Al Jazeera, 2022).

Climate Change is indeed a problem for everyone, yet it does not have one global solution. Opportunities and resources are not equally distributed across nations. and as a result. the

discussion of justice and fairness is a necessary component of potential solutions (World Bank, 2017).

Elements of a Just Transition

A February 2022 report by the Intergovernmental Panel on Climate Change (IPCC) warns that reaching 1.5 degrees Celsius in the near term, would be threatening for humans and ecosystems, and data shows that global temperatures have already risen above 1.2 degrees Celsius since preindustrial times (IPCC, 2022).

As one of the hottest and driest parts of the planet, the trajectory is more rapid in the MENA region. As a result, it is even more necessary for governments to respond to climate change and environmental problems (IMF, 2022). So why don't these countries just stop using fossil fuels and start using renewables to fix their emission and climate change problems?

The answer can be explained through a series of factors. One of which is that MENA nations will need to find an alternative source of income to fund their economies. Given that most of them have a natural abundance of oil and gas, asking them to leave these resources in the ground is somewhat of a tall order without the provision of financial incentives and compensation.

Additionally, considering individual circumstances is another crucial element of a just energy transition. Europeans have many incentives for making a change given their energy dependency on the MENA countries and the rest of the world. But even they have not been able to make meaningful progress and their actions do not match their promises, even though their economies are relatively stronger and more resilient than many war-ravaged, sanctioned countries of the Middle East. Their failure in reducing their dependence on fossil energy can partially explain why they have been hurt by Russia's actions related to the war in Ukraine.

Meanwhile, most MENA countries, if not all, are also suffering from a condition called "water bankruptcy" (Madani, Aghakuchak and Mirchi, 2022), this means that these countries are using more water each year than their renewable resources produce, and their water resources (surface and ground) have been drained. Additionally, water shortage in these countries can function as a

trigger for protests, conflicts, and war as was seen in the cases of Syria in 2011 and Iran in 2021 (DAWNS, 2022).

Given that water shortages can cause forced migration, conflict, and thereby threaten national security, the limitation of [water](#) should be a major factor in the future planning of energy mixes in the region. For example, given the specificities of this region, deploying biomass may lower GHGs, but will have severe negative effects on resources such as water. Large-scale hydropower is another popular renewable energy source globally that is not necessarily suitable for MENA, given its massive water footprint.

A study conducted on the importance of considering the natural and economic resource restrictions while planning the future of energy in the MENA region found that geothermal and nuclear power seem the most desirable options for transitioning away from fossil fuels, but regarding nuclear, there are concerns such as safety and water use (Mahlooji, Gaudard, Ristic, and Madani, 2020). Due to MENA's unique environmental problems and scarce natural resources, it is vital to consider the region's environmental landscape and availability of water, land, and other natural resources when planning its future energy mix.

Recommended Pathways

What is evident is that most countries in the MENA region will need to secure financial and technological investments to carry their weight in the global fight against climate change. Reducing emissions on any effective scale would require major changes in the way these nations consume and produce energy.

But one important caveat is that MENA countries often argue that their historical and cumulative contributions to global GHG emissions are not as many highly populated countries and some advanced economies such as the United States, China, Russia, Germany, the United Kingdom, Canada, Japan, and India. Although Iran and Saudi Arabia are currently among the top CO₂ emitters in the world (Climate trade, 2021), the argument remains that these countries, along with the other developing countries, may not want to sacrifice their economic growth when other developed countries have already gone through the process of industrialisation and reaped the

benefits without restriction. Thus, like other countries in the Global South, the MENA countries have maintained the issue of “historical responsibility” in climate change negotiations. In their view, the transition to a low-carbon economy is fair if the historical polluters provide massive financial and technological resources to the Global South.

In theory, some wealthier MENA governments, including Saudi Arabia and the UAE have set ambitious targets and showed political will towards the reduction of emissions. In many other MENA countries, however, political will to address environmental degradation and climate change often remains lacking, especially during times of unrest and domestic chaos. A fair energy transition is one that takes into consideration the fact that MENA countries do not have the same level of access to finances and resources and cannot change their energy mix at the same pace.

One option that some MENA countries, like Egypt, are pursuing is the use of natural gas as a bridging agent (UNFCCC, 2017). By increasing their use of gas, they can reduce their reliance on oil and move toward a greener energy solution. Iran is another country claiming that by strategically increasing the share of natural gas in the energy mix, it will reduce its GHG emissions. Many countries in the MENA region have vast gas reserves and the infrastructure for both domestic use and exports. Natural gas emits lower amounts of greenhouse gases compared to other fossil fuels, such as coal and oil. Therefore, gas is an attractive fuel to quickly lower environmental impacts in oil-dependent countries, while the shift to greener energy sources takes place. The 2020 study also concluded that overall environmental and economic footprint of natural gas in many MENA countries is less than some renewable energy options such as offshore wind, bioenergy, and hydroelectricity (Mahlooji, Gaudard, Ristic, and Madani, 2020).

Regarding discussions on MENA countries’ contribution to climate change at the next climate summits in the UAE, coming up with a practical plan and financial and tech/knowledge transfer incentives would encourage them to contribute to the fight against climate change. Otherwise, it would be safe to expect business as usual.

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