ROUNDTABLE ON ENERGY TRANSITIONS IN THE MIDDLE EAST AND NORTH AFRICA JANUARY 20, 2022

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) AND THE MIDDLE EAST INSTITUTE (MEI) REPORT

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ABOUT THE MIDDLE EAST INSTITUTE

The Middle East Institute (MEI) is a center of knowledge dedicated to narrowing divides between the peoples of the Middle East and the United States. With over 70 years' experience, MEI has established itself as a credible, non-partisan source of insight and policy analysis on all matters concerning the Middle East. MEI is distinguished by its holistic approach to the region and its deep understanding of the Middle East's political, economic and cultural contexts. Through the collaborative work of its three centers — Policy & Research, Arts & Culture, and Education — MEI provides current and future leaders with the resources necessary to build a future of mutual understanding.

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Executive Summary

The first International Development Research Centre (IDRC)-Middle East Institute (MEI) Roundtable on Energy Transitions in the Middle East and North Africa (MENA), held on January 20, 2022, explored the challenges and opportunities facing the region as a result of the global energy transition. As it accelerates over the course of the century, this global transition will provide new opportunities for economies to evolve while putting a strain on the current economic model of many nations in MENA. The region remains bifurcated between hydrocarbon exporters with considerable financial resources and energy-import-dependent countries with limited access to finance. For energy exporters the transition will mean reduced demand for their fossil fuel products, putting a strain on government finances. For energy importers this provides an opportunity to secure energy independence and reduce reliance on imports.

Diversification in MENA economies is necessary, but also a historic challenge. Some progress has been made in a few economies, but continued reliance on dated economic management will slow the transition. The main obstacle in many MENA economies is the dynamics of political economy in relation to rent-seeking behavior. Oil rents are a dominant force in energy exporters, with wealthier nations using fossil fuel revenues to provide public services, and populous nations resorting to repression to control populations. In those developed countries, namely the Gulf Cooperation Council (GCC), developed financial markets give some access for foreign capital, while in the less developed parts of the region international finance does not penetrate. In building the new economies of the region labor market conditions will shape the paths taken, with Gulf nations tapping into expatriate labor and some countries failing to provide the skilled labor necessary to fill new jobs. As they move forward with this process, regional governments will have to reduce fiscal deficits by raising new sources of revenue.

New employment opportunities may arise through this transition, but initial estimates of large-scale employment may be overestimating the effects as much of the new investment is into capital-intensive enterprises. This will boost aggregate investment, however, helping to stimulate overall economic output, income levels, and job growth. In many MENA nations the current education and training systems are inadequate for the transition to renewables and the new knowledge economy, and there is a mismatch between job requirements and the current labor market offerings. We can expect some shocks to labor markets as firms close and others open, and governments must intervene to utilize the human and physical capital released. Governments must begin serious long-term planning for the energy transition, to prepare for the government services and finances needed, as well as the impact it will have on energy production and the wider population. A successful example of this is in Morocco, where the new energy plan is not just a plan for energy production, but a new vision for the whole economy.

Through the churn of this transition many vulnerable communities will need social protection and direct assistance, both from sovereign governments and through international aid. Vulnerable communities in the region already face steep challenges and these will only be exacerbated by the energy transition. Higher energy prices globally will affect middle- and lower-income households most directly, and relief will be necessary to avoid public upheaval. Maintaining popular support throughout the transition process will be a challenge, especially if difficult tradeoffs are required; at present there is little support for drastic changes on the grassroots level.

There is a risk that the energy transition could lead to new divergences within the MENA region, with wealthy GCC states investing heavily and abiding by international standards, while other countries may simply decide not to join in the global effort. The international community has a role to play here and will need to help with both project financing and assistance on a technical level — including private investment as well as funding from international financial institutions (IFIs). The climate will continue to change throughout the transition process and accommodations must be made for larger anticipated migration flows within the region and outside of it, in addition to higher direct costs for maintenance and upkeep of critical assets and infrastructure.

The global climate emergency has entered a new phase and MENA nations must decide to opt into the global energy transition. National, regional, and global cooperation will be necessary to make the first half of the 21st century a successful one, both in a self-interested and an altruistic manner.

Introduction

Global climate change has spurred a movement to transition away from fossil fuels and toward renewable energy sources. This will have profound implications for both fossil fuel producers and energy consumers. Most developed countries have pledged to reach net-zero emissions by 2050, with many more developing economies aiming to achieve that goal before the end of the century. Meanwhile a diversified set of energy sources must be developed and put into operation. As this transition occurs, demand for fossil fuels will decline, putting a strain on economies with heavy dependence on fossil fuel exports. MENA exemplifies these issues, as the region is home to many of the global leaders in fuel exports as well as fuel-import-dependent nations.

In recent years political turmoil and armed conflict have put an additional strain on the region. As the world looks forward to a green future, MENA must not be left behind. Some countries in the region have begun implementing ambitious plans to diversify their economies away from fossil fuel dependency but have faced serious challenges, while others are still unable or unwilling to begin working on long-term economic planning and development. In all nations of the region political economy dynamics dominate economic policy making, leading to less-than-ideal outcomes.

In three sessions held over the course of the day on January 20, 2022, the first IDRC-MEI Roundtable on Energy Transitions in MENA explored the implications of the global energy transition for fossil fuel exporters, countries reliant on imports, and energy generation across the region. The roundtable opened with comments from Arjan de Haan, a Senior Program Specialist on Sustainable Inclusive Economies at the IDRC, and Karen Young, founding director of the Program on Economics and Energy at MEI. The first session focused on the economics of an energy transition for oil producers in the region, as well as its implications for political economy and fiscal governance. The second session focused on the impact of the energy transition on employment, for both exporters and importers, along with its implications for the social contract and the role of education. And the final session focused on managing the resulting policy challenges, protecting vulnerable communities, and the role of governance in the energy transition.

Session I: The Economics of an Energy Transition for Oil Producers

What is the impact of a short-term supply crunch for exporters, which may be incentivized to roll back some hard-earned reforms in subsidy reduction and liberalizing the business environment for more competition? In the longer term, how will a decline in investment in oil and gas impact some producers more dramatically than others? For example, how will producers like Iraq, Libya, Algeria, and even Iran find their oil and gas revenues impacted in the future, and what industries are poised to recoup even some of that lost income? What is the outlook for fiscal policy, especially in social services?

The first session on economics touched on far ranging topics from political economy, finance, and fiscal constraints to technical details of electric grids. The roundtable in this session found much consensus, although there were also some interesting areas of disagreement. A key framework proposed by one speaker, a finance officer at a multilateral finance institution, is of a bifurcated region. Fundamentally MENA has some nations with developed capital markets and functional financing, and others with undeveloped financial markets and little access to financing. This split makes for differing topics of interest and barriers to progress. A listening participant proposed a similar framework with high oil rent per capita nations in one grouping and populous oil exporters in another. Both frameworks see GCC nations differing from their neighbors, both in terms of how oil rents are allocated and where financing can be expected. One listening participant pointed out that the populous nations often rely on repression as a central means of maintaining power, whereas the high rent per capita countries typically use the provision of public goods.

The roundtable found much consensus on the economics of the energy transition and the need for diversification, but some disagreement arose as to how that would occur. The path to diversification is a difficult one as one speaker, an economist based in the Gulf, pointed out: Oil-producing nations have been trying to diversify for decades and have thus far been unsuccessful. The only periods in which diversification succeeded were times of serious fiscal stress, and today's high oil price environment has softened the fiscal constraints on governments. One speaker, an economist based in the U.K., echoed this idea, noting that the oil boom is not necessarily good for the oil-based economies as it reduces the pressure to diversify.

One point of contention was where diversification would come from. Most participants saw general economic diversification as necessary, but one listening participant, an oil analyst based in the Gulf, indicated that from the perspective of the region itself, diversification needs to come from within the energy sector, either from new sources of energy revenue or from derivative technologies. All participants agreed though that to spur new economic development government policies must change, especially in areas like subsidy reduction and elimination, regulatory reform, and prioritization of private business. This participant further posited that as MENA economies invest in new technologies, exporting through the knowledge economy could be the new model. Proprietary technology in hydrogen, carbon capture, utilization, and storage (CCUS), and battery technology were at the top of the list. A listening participant, an energy analyst based in a think tank in Saudi Arabia, pointed out that spinoffs from Saudi Aramco have been investing in other countries in areas such as geothermal energy. But the economist based in the U.K. disagreed, stating that current levels of R&D investment and output are inadequate to be an economic model for the future. The finance officer from a multilateral finance institution posited that perhaps small and medium-sized enterprises (SMEs) should be a focus of new economic development. Using public funds where available to prioritize strategic sectors and investment vehicles specialized for each field, governments can provide funding while allowing private markets to choose the best firms.

Fiscal positioning of governments is a top priority as oil and gas exports make up large portions of government revenues. As the transition continues, fossil fuel revenues will shrink, causing a serious fiscal crisis. The roundtable agreed that softer fiscal constraints in the short term due to high oil prices will slow the rate of progress in the region. The economist based in the U.K. explained that fiscal policy in the region is procyclical, and in an oil boom few of those new revenues go toward diversification projects. Social expenditures are likely to continue to rise as this is the youngest region in the world, putting a strain on fiscal positions going forward. Fiscal breakeven oil prices have been increasing as well, and we should not expect oil prices to continue to rise. Since 2014 there has been serious pressure to diversify as global commodity prices dropped, and this effort has seen some success.

The largest obstacle to a successful energy transition is the political economy of the region. One of the speakers, an economist based in the Gulf, explained how oil rents are passed on through public services and subsidies, public sector employment, government contracts, and exclusive licenses. Each of these channels has entrenched interests, and it was proposed to divide economies into competitive sectors and rent-seeking sectors in an attempt to overcome the political economy dynamics while still creating some competitive industries. This idea is already in action through free zones, but a formalization of this framework could aid the business environment.

The distribution of rents in the region is the driving force of politics, especially in oil-exporting nations. One speaker, the U.K.-based economist, explained that the private sector as it stands today is linked to the business elite and is incentivized through subsidy schemes to look inwards to a domestic economy where rent-seeking behavior is maximized. Ultimately these firms are uncompetitive in global markets and have little incentive to export. This provides no tradable goods for the economy to export, which is necessary to fill the space left by reduced oil revenues in the future.

Session II: The Impact of the Energy Transition on Employment, for Exporters and Importers

There is a lot of expectation that renewables will be a source of job creation globally, and especially in the MENA region. What is a realistic assessment of access to finance for renewable power projects and the impact on labor markets and new employment opportunities? How might the transition have ripple effects across other sectors? Can we assess impacts on opportunities across gender and age demographics? Are there case study examples to guide expectations and policy goals, e.g. in Morocco or in Egypt in recent solar power projects?

The second session on employment had varied opinions on the prospects for new green jobs. There is potential in the transition to renewables for more inclusive employment opportunities, but the current level of investment has not reaped large-scale rewards. In MENA the most consistent theme is the mismatch between job requirements and the labor market. Arjan de Haan opened the conversation by looking at the role of population groups such as migrants and the potential for new employment in renewables. One speaker, a scholar focused on Egypt, pointed out that the geography of the region lends itself to renewable energy production. The region has the highest solar radiation levels and plentiful wind, but these projects often do not employ large numbers of people. In Egypt, Jordan, and Morocco renewables account for only 1% of employment. Of that around 40% of employment comes in the construction phase, which is not long lasting, with the remainder coming from high skilled labor. Here there is a mismatch in the market, as many of the managerial and technical roles are undersupplied. Another speaker, a senior energy expert and electricity engineer based in Saudi Arabia, pointed out that energy production, whether fossil fuel or renewable, is a capital-intensive business, and there should be few expectations of mass employment. Many of the estimates published related to renewable energy employment are in gross terms, not net estimates, and are quite misleading.

One speaker, a development expert in an international organization, saw a silver lining, as investments into renewables will increase aggregate investments, stimulating greater output in other sectors and causing a rise in overall incomes and job growth. This indirect effect can still be seen as stimulating the labor market, with an estimated 1% increase in overall employment through the transition phase (until 2050). These indirect jobs will come in various sectors, including legal matters, safety and quality assurance, and skilled labor, such as trucking, maintenance crews, and crane operators. A senior energy expert and electricity engineer further pointed out that a decrease in some types of employment may be a good outcome: needing fewer respiratory doctors to cure lung diseases is an admirable one, for instance.

The current labor markets are inadequate for the renewables transition and the digital transformation. Education systems in the region are insufficient and must be improved upon. In Egypt, as the scholar focused on Egypt explained, on-the-job training occurs in 10% of jobs, which is quite low when compared to the OECD average of 40%. Every year 460,000 to 600,000 people enter the labor market in Egypt, most with little to no skill level. This is suitable for the construction phase of projects, but inadequate for planning and management.

The speaker from an international organization echoed this as he placed a top priority on training and skills development in the region. Transitioning requires countries to enter the knowledge economy, but the brain drain phenomena has limited the capacity of domestic economies. Barriers for female labor force participation must also be lowered to increase competitiveness.

A listening participant pointed out that while this transition occurs social protection against adverse changes may be necessary, in addition to protection from political economic dynamics. There is skepticism from civil society in the region that governments can provide relief without the current commodity subsidy model, but this model has taken up fiscal space, as well as creating economic inefficiencies.

The roundtable agreed that governments must organize long-term planning for the energy transition, both for energy production and for their population's ability to contribute in a new economy. A speaker focusing on North Africa noted that in Morocco renewable energy isn't just a plan for an energy transition, but is also an economic vision for the nation. While the goal of having renewables account for 42% of energy production was missed by 5%, a new goal of reaching 50% by 2030 has been established. Morocco's government laid the foundation to achieve such remarkable progress, establishing a clear regulatory framework that is appealing to foreign investors, and directly investing in domestic clean energy production. It has also invested in infrastructure for regional integration (specifically for the European market), and it is phasing out fossil fuel subsidies (with the exception of butane, a fuel largely used for personal use at home), providing access to the power grid to independent energy producers, and giving regulators autonomy from legacy energy producers. This all-of-government approach is seen as necessary to move the needle in a timely fashion.

One contentious topic was the role of scale in power grids and how to best apply them for the MENA region. Optimal policy, as laid out by the energy expert based in Saudi Arabia, is for a large integrated regional electric grid, but conflict and political economy factors make this difficult to achieve. A listening participant proposed that while we are transitioning in energy sources, we may also be transitioning in terms of model. Smaller-scale decentralized systems for electricity may be suitable for some populations, especially in countries where corruption is a major problem and central governments do not always have the best intentions or understanding of regional needs. The energy expert based in Saudi Arabia disagreed, noting that decentralized systems may be appealing but are technically more difficult and inefficient. When there is an inability to create large electric systems, there may be more serious political problems to tackle. Integrating large regional grids gives rise to economies of scale, creating a more robust grid. Electricity can be easily traded over distances larger than 1000 km. The benefits of building regional grids with functional electricity trading are immense, both monetarily and in terms of service provision. The expert on North Africa noted that Morocco is investing heavily to integrate its grid with the larger European market.

The energy expert based in Saudi Arabia continued, mentioning that small/micro grids serve an important role such as in hospitals but are most useful when interconnected to larger grids. These micro grids are prohibitively expensive for most, and where governments fail micro grids are susceptible to theft. Where governments fail to provide electrical services, they may also fail to maintain a monopoly on violence, making managing electric systems near impossible.

The role of government was discussed at length and the roundtable found that governments must establish new social contracts. Since the rise of revolutions in the region, poverty rates have increased and income security has fallen. The transition being multi-objective (improving economies, the environment, and energy security) gives governments an opportunity to provide for their populations. Renewable energy will cost more in the short term, and may lead to unemployment. Governments must be ready to absorb the human and physical capital released and repurpose it for future use. Governments also have a role in educating firms on energy use. Most firms in the region are small, informal, and have a low level of knowledge about energy efficiency.

Session III: Managing the Policy Challenges and Protecting Vulnerable Communities - The Role of Governance in the Energy Transition

Managing the transitions to a low or zero carbon future is a massive policy task at the national and international level. Questions of equity and fairness among developing economies, especially those that are eager to exploit natural resources, will impact how governments can implement changes at home, including increases in the cost of electricity and the ability to use natural resource revenue for fiscal expenditure on social services. Pressure on the quality of government service delivery and the ability to communicate policy change will mount across the MENA region. How do we think about advantages in an energy transition, and equity in access to finance as well as the impact side of climate change in the region? What are expected positive opportunities, new sectors, new mobilities, and transferable skills? What are the disadvantages?

The third and final session of the day was opened by an expert at an international organization's development agency. Poverty rates have risen in MENA since the era of uprisings, and many populations have been displaced in the last decade due to conflict. For the most vulnerable communities, access to critical public services such as health care and electricity is lacking. Governments must prioritize the most vulnerable in their new domestic renewable energy plans, including those in both displaced groups and rural communities.

The roundtable was in agreement that currently the vulnerable populations in MENA already face large challenges, and the energy transition will only add to that dynamic, making governance an even more important issue. In the GCC specific attention must be given to migrant labor populations as they have few legal rights. The churn expected in the labor markets will specifically impact migrant labor as those workers do not have access to government safety nets and have few social networks to rely on. In addition, this population is not represented in government and as such has little recourse for mistreatment.

The role of female labor was also a key point of discussion, both as a vulnerable community and as an economic asset. An Iran scholar made the point that to unlock economic competitiveness the female labor force must be tapped into, mirroring the economic boom in Southeast Asia following the integration of female labor. In the economies of the future there will be plentiful work for female labor participants at all education levels, in health, social work, and education. There continues to be a shortage of doctors and nurses in the region, a high-income, high-value-added sector of the economy.

Popular opinion plays a key role in government action, and the lack of public support in MENA for an energy transition will be a drag on the region. In the West environmentalism is popular, whereas in MENA there is little grassroots support for drastic changes. A senior academic political economist in the region put it best, noting that globally there is a popular commitment to the green cause, specifically among the youth, where environmentalism has become a core political belief. The youth associate environmentalism with a perception of capitalism and overconsumption. Polling in the West finds overwhelming support for climate action, whereas in MENA this is not the case. There is little willpower to move along a difficult journey to renewables. Populations must be on board to overcome entrenched political interests, especially in societies based on oil rents. A pertinent example is that of Kazakhstan, where a removal of fossil fuel subsidies led to a popular revolt, and something similar can be expected in MENA, where commodity subsidies are still large. International will cannot force nations to leave fuels in the ground if the populations disagree.

Higher energy prices will also disproportionately affect the disposable incomes of the poorest populations. An energy analyst based in Asia pointed out that higher prices for energy in terms of both fuel and electricity most heavily impact lower-income and middle-income families. We can look to the "yellow vest" movement in France as an example; even in a country where climate action is

popular, once prices rise, popular discontent follows. An energy analyst based in the U.K. pointed out that so long as oil and gas are cheaper to use than renewables, we should expect fossil fuels to be utilized.

A climate expert laid out the path for the region in terms of climate change, warning of resulting stresses across the economy. Even in the best-case scenario, warming of 1.5 can be expected globally, with an even higher rise in MENA. By 2050 there will already have been drastic changes in weather patterns. Hotter summers can be expected, in addition to shorter winters and warmer nighttime temperatures. Higher humidity in coastal regions will increase health care costs and drier lowlands will reduce crop yields. The net effect is that energy use for cooling will rise, as will maintenance costs on critical assets and infrastructure, putting additional stress on government finances. The response is two pronged: adaptation to treat the disease and mitigation to treat the symptoms. Dealing with magnified shocks such as heat waves and droughts will be more difficult as the intensity and scope increase. Massive migration flows within and outside of the region can be expected, with implications for governments in MENA and Europe.

To deal with these issues new projects must be planned and financed. Here the roundtable agreed that there is a role for private investment in addition to IFI flows. For risky areas of the region a key challenge is to de-risk renewable energy investments; private funds in developed markets such as the GCC may be sufficient. An academic and senior political economist highlighted that this is an expensive enterprise, and it will be difficult to meet the technical goals on top of the financing ones. The region's finances have already been stressed through reduced remittances and the high cost of managing COVID-19. Another academic economist based in Europe stated that without international financing we can expect diversion from international norms. Here again there was agreement across the roundtable.

The international community must contribute to the costs of an energy transition. While the region's investment inflows have increased tenfold since the global financial crisis of 2007-08, the nations with the most vulnerable communities have not reaped the rewards. U.N. and IFI funds are required in those communities. The Egypt expert pointed out that the IMF just had the largest drawing of special drawing rights (SDRs) in its history, and while the wealthiest nations received around two-thirds of the funds, Sub-Saharan Africa received only around 4%.

A major closing topic was the potential for divergence within the region. The economist based in Europe said that while the GCC has the ability to abide by international standards, other countries in MENA may find it difficult and simply decide not to participate. If we intend for these nations to keep up, they need support from the international community in adaptation, mitigation, and building up renewable capacity. Yemen and Lebanon, for example, may choose not to opt into this new global process as the bar for entry is too high. This has implications for intra-regional dynamics as the GCC and its neighbors diverge further.

Global equity was also considered. Ultimately most of the global carbon budget has been used by the wealthiest countries; should they not now bear the cost for mitigation and adaptation? A listening participant brought up the new Jeffrey Sachs proposal — financial volunteerism in the global community may be insufficient for the road ahead. Greater funds must be allocated from the Global North to MENA through financing loans and grants. A key issue here is that there is no definition set yet for green or climate financing. This issue must be addressed, to best incentivize such investment.

CONFERENCE MEMOS

1. What Does the GCC Quest for Economic Decarbonization Mean for Equity?

By Aisha Al-Sarihi

As the Gulf states work to decarbonize their economies and reduce their emissions, the scale of the transformation needed to achieve their climate-related targets could be inherently disruptive and come with an array of risks for workers and communities along socio-economic class, race, nationality, and gender lines. How can they address questions of fairness, equity, and impact on vulnerable communities?

2. Financing MENA's Energy Transition: Risks and Implications

By Lama Kiyasseh

As hydrocarbons form the very backbone of economies in the Middle East, the energy transition will have major implications for their economic and fiscal health. The economics of the energy transition will involve difficult decisions regarding the social contracts these countries have established with their citizens and will exert pressure on their development plans.

3. Putting Women at the Center of the Energy Transition

By Valentine M. Moghadam

The energy transition in MENA is both inevitable and necessary for a variety of reasons, although the obstacles involved are formidable. As countries across the region seek to manage the transition and the broader challenges presented by climate change, this will create opportunities for new policies and new approaches. Youth and especially women must be placed at the center of these efforts; not only is their inclusion in the energy transition important, but the manner in which they are integrated is too.

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