The energy transition in the Middle East and North Africa (MENA) is both inevitable and necessary to protect the environment, generate employment, and revive growth and development after the crises that many countries in the region have faced. The obstacles are formidable, however, including a lack of intra-regional cooperation, financing difficulties, conflicts, and sanctions. As countries across the MENA region seek to manage the energy 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. I begin with a few summary points, to be followed by further elaboration.

1. Countries around the world must make adjustments due to environmental imperatives, but there is even more urgency in the case of MENA, as the demand for hydrocarbons, the main source of foreign exchange revenues for much of the region, is bound to decline. At present, demand seems to be holding steady and prices have rebounded. This provides a window of opportunity for MENA countries to restructure their economies, because in the long run the current patterns of hydrocarbon demand are not sustainable.

2. This reality necessitates new strategies to better utilize MENA countries’ capital resources and labor.

3. In the past, natural resource abundance led to capital-intensive strategies and an inability to properly utilize the young, educated labor force, which then suffered — and continues to suffer — from high unemployment. This is especially problematic in the case of women. The underutilization of female labor has been exacerbated by additional supply-side factors such as high wages, which enabled the persistence of traditional gender norms.

4. A disproportionately high share of resources has been devoted to military expenditures. More efficient utilization of resources in the post-oil era means that this must change. Both oil and militarism have encouraged conflicts and foreign interventions, and these too need to end.

5. What the energy transition needs, and could also help bring about, is the utilization of the large numbers of educated youth and particularly women who are unemployed and underemployed. This is essential for restructuring the region’s economies to make them more competitive and facilitate adoption of greener technologies. The employment of women in productive activities enhances overall productivity and is necessary for international competitiveness. More social spending and job creation in areas such as health, social work, and schooling can provide work at all skill levels for women (highly educated and less-educated alike) while also lightening women’s burden of care work at home. In turn, such social investments can lead to productive employment for both women and men in other areas of the economy. Attention should also be paid to better training and education, especially as the shift to renewables will require more skilled labor.

Crises and Opportunities

Many MENA countries are resource-rich and some are resource-dependent, which makes them vulnerable to price volatility, especially when it comes to oil. With the Sustainable Development Goals (SDGs), the 2015 Paris Agreement, and the more recent COP 26 U.N. Climate Change Conference, there has been much global discussion about, and some investment in, renewal energy and other climate change mitigation and adaptation measures. This will likely reduce the demand for oil in the longer term,
although for now, it remains high. This does not change the fact that the energy transition and economic diversification need to take place.

The COVID-19 pandemic is said to be the fourth crisis to hit the MENA region in the past decade, after the Arab uprisings of 2011, the 2014-16 decline in oil prices, and the wave of protests in 2019. For Iran, another crisis is the persistence and indeed ramping up of U.S. sanctions, especially those imposed in 2018, and its inability to secure an IMF loan. Outside the Gulf Cooperation Council (GCC), the MENA region is the least integrated in terms of economic cooperation, and development cooperation across countries is almost negligible.1 And then there is the environmental damage that so many countries have experienced, which includes pollution, desertification (such as receding coastlines), droughts, water scarcity, and soaring temperatures. Domestic and international factors and forces alike have contributed to this.

For far too long, MENA states have relied almost exclusively on oil production and export for the revenues that kept regimes in place and underwrote the “authoritarian bargain.” At the same time, the demand for oil fueled or contributed to much of the international intervention in the region.2

Oil and extractive production in general have been a mixed blessing for the Middle East. In the 20th century, revenues from oil and other extractive industries enabled modernizing regimes to invest in infrastructural development, generate growth, and create modern middle and working classes.3 But the downsides have been serious: pollution, corruption, authoritarian durability, limited diversification, income inequality, international interventions, and low female labor force participation.

In Iran and Algeria, oil revenues enabled high wages (at least for a while) that precluded an expanded female workforce. In the Gulf sheikhdoms, oil wealth has enabled extraordinarily high military expenditures, along with labor importation and wealth concentration among the ruling elites. In Tunisia’s Gafsa mining region, revenues were captured by state-affiliated elites and not reinvested, leaving it under-developed and contributing to the protests in 2008 and after the 2011 revolution.4 Across the region, high wages for male workers enabled the persistence of traditional gender norms, the division of household labor, and ultimately women’s political under-representation and marginalization from decision-making, including development planning.

MENA regimes became dependent on oil, limiting diversification and investments into the kinds of export-led sectors that made Southeast Asian economies so competitive and employed so many women. Of course, those export-led sectors in Asian countries received considerable foreign direct investment, which will also be necessary for the middle-income MENA countries.

Recently, MENA countries appear to be moving in the direction of diversification.5 International cooperation and financing will be needed for this effort to succeed; as The Economist

5. Economists Hashem Pesaran and Dario Laudati identify new sectoral investments and outputs in Iran – partly the result of the U.S. sanctions – while also recognizing that more diversification is needed; Dario Laudati and Hashem Pesaran, “Identifying the effects of sanctions on the Iranian economy using newspaper coverage,” CESifo Working Paper, 9217, July 2021. See also https://atlas.cid.harvard.edu/countries/107/export-basket.
magazine notes, “It’s not cheap being green.” Even without considerable outside financing, however, the energy transition needs to be undertaken sooner rather than later, for at least the following reasons:

1. To meet the challenges of climate change, the SDGs, and the international agreements on CO2 emissions.
2. To address the high unemployment rates — especially among women and youth — that have characterized (indeed, plagued) the region since the mid-1990s.
3. To tackle poverty and growing income/wealth inequality.
4. To become more competitive in a post-oil era.

In the post-oil era, business as usual cannot continue. Across MENA female labor needs to be incorporated to make economies more competitive and thus more productive, along with more effective utilization of the labor force in general. This requires, in the first instance, removing existing social, cultural, and legal obstacles to incorporating female labor (many inscribed in the region’s family laws), and creating the appropriate incentives to attract women to the workforce.

**Back to Women — and the Future**

There is much discussion about how jobs and sustainability will follow from growth-enhancing reforms such as investment in green infrastructure, the digital economy, and renewable energy. But I am interested in what kind of jobs will be created, who will benefit, and how to create a healthy and skilled workforce prepared to take those jobs and succeed in them. For that, we also need investments in health care, social services, quality schooling, and preschool facilities. Those are the sectors that — with the right incentives — could see growth in female labor force participation (FLFP).

FLFP levels in MENA are generally low, especially among married women with children and those with secondary schooling or less. The regional average is 27%, according to IMF and World Bank data. In 2020, Egyptian women’s participation rate was just 20%, compared to 75% for men. Egyptian women made up about 50% of the population but just 18.8% of the total labor force, according to World Bank and International Labour Organization data. Women’s marginal position in the private sector (excluding informal and unpaid family labor) reduces their overall share of the labor force and their participation rate. It is difficult to envision an energy transition in the absence of an adequate female labor supply, but the private sector will have to offer women better working conditions if more women are to gravitate to the new jobs that will be created. At present, women’s public sector employment is higher. Female employment in the professions has increased steadily in many countries since the 1990s, with “feminization” occurring in education, social services, pharmacology, and the law. Nevertheless, women’s unemployment rates, especially those among young, college-educated women, run into the double digits. This population of young people will need both skills and incentives for employment in the new sectors. But how to tackle the low rates of FLFP among less-educated women with children?

The lack of institutional support for working mothers has been a disincentive for women, underscored by Arab Barometer and other surveys, as well as my own field research in the 1990s. In MENA, school starts at age six, and public preschool facilities are rare. Although all MENA countries require paid maternity leave, it remains the employer’s financial responsibility and is of short duration in some countries. In Iran and only four Arab countries — Algeria, Morocco, Tunisia, and Jordan — is paid maternity leave covered through the social security/social insurance system. Even in Tunisia, women are fully covered only in the public sector; income replacement in the private sector is 66%, and maternity leave is longer in the public sector than in the private sector.

6. See *The Economist*, January 15th, 2022, p. 46. The article is actually about Britain.
In Morocco, where progress has been made on the energy transition front, a focus on food security as well as exports motivated its Plan Vert, which included initiatives to integrate rural women’s traditional knowledge into the production of natural products. One academic study of six villages with agricultural cooperatives found women producing argan oil, seeds, couscous, quinoa, honey, thyme (in the High Atlas), and cactus. The women were working hard to make a living, but their labor, considered non-salaried, was not eligible for social protection or a pension plan, and the women were only remunerated according to the tasks provided.\(^{10}\) Labor codes and social policies need to be revised if FLFP rates are to increase and more women make themselves available for the new jobs that will be created.

The energy transition and the imperatives of climate change mitigation and adaptation are opportunities for new ways of thinking and crafting policy. In the first instance, domestic and international financing should be predicated on new social and gender contracts that provide decent work for all, including the region’s female population. Indeed, governments should heed the IMF director’s recommendation of “gender-responsive fiscal policies … including gender budgeting.”\(^ {11}\) And let’s go further. Let’s envision a future whereby the shift from an emphasis on national/state security to human security and sustainable development alleviates the region’s many tensions and conflicts and even brings about intra-regional cooperation.

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