



A review and assessment of energy policy in the Middle East and North Africa region



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ABSTRACT

The energy landscape of the Middle East and North Africa (MENA) region has undergone a significant transformation in recent years as a result of intersecting technological, economic and political trends, both regional and international. The evolving dynamics of international energy markets, increased diversification of energy sources, global concerns for climate change, and regional conflict are among the leading factors impacting the evolution of MENA energy policy. This paper provides an assessment and outlook for energy policy in the MENA region within the context of the myriad factors impacting policy design and implementation. A review and analysis of the social, political and economic factors that are impacting regional energy policy is provided and followed by analysis of regional energy policy with consideration of hydrocarbon exploration and production, regional energy trade, demand management and clean energy production. The findings show that the MENA region is in the midst of an energy transition that has uncertain outcomes but will undoubtedly have long lasting impacts on the global energy system.

1. Introduction

The global energy landscape has been rapidly evolving in recent years. Of particular importance to this evolution has been the rise of cost-competitive new sources of oil and gas supply, dramatic volatility in international oil and gas prices, the emergence of various types of renewable energy as cost-competitive energy sources, and increasingly coordinated global efforts to address climate change. The Middle East and North Africa (MENA¹) region plays a key role in the global energy system and hence is particularly sensitive to many of these factors. Sustained weakness in oil prices starting mid-2014 and continuing into 2016 has had a negative impact on the finances of MENA oil-exporting countries, requiring them to initiate or intensify the reform of energy subsidies and taxation. Although MENA energy-importing countries benefit from lower global energy prices, many of these countries are at the epicenter of wars and political struggles that have greatly impacted their ability to take advantage of lower energy prices. Libya, Syria and Yemen are confronted by ongoing civil wars and Iraq remains unstable amidst political dysfunction. Jordan and Lebanon have been dealing with a refugee crisis from the Syrian conflict and Egypt's population is disillusioned with the stagnating economy and political repression. Iran offers more promise as the economy emerges from international sanctions, but the future remains unclear given the country's still-

difficult diplomatic relations with the West and its GCC neighbors, and years of underinvestment across almost all sectors.

It is against this backdrop of international and regional developments that MENA energy policy is being shaped. Although energy policy is context-dependent (Hoppe et al., 2016), it is generally concerned with political decisions for implementing programs that achieve energy-related societal goals, including universal access to reliable and affordable energy sources that spur economic development. Hence, MENA energy policy must account for interrelated social, economic and political factors that are at the foundation of energy systems. This paper therefore begins with a review of the MENA regional context, as well as assessment of both global and regional factors shaping the region's energy policy. Evolution of the MENA energy system is then considered with particular focus on the key issues concerning energy supply, demand and trade. Finally, policy conclusions and implications are drawn from a synthesis of the issues discussed.

2. The MENA region context

The MENA region does not have a single, uniform definition, although the World Bank defines MENA to include the following regions and countries:

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¹ In this paper we define MENA as including the North African Countries (Morocco, Algeria, Tunisia, Libya and Egypt), the Levant countries (Jordan, Israel, Lebanon, Syria and Palestine), the Gulf Cooperation Council (GCC) countries (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and United Arab Emirates), Iraq and Iran).

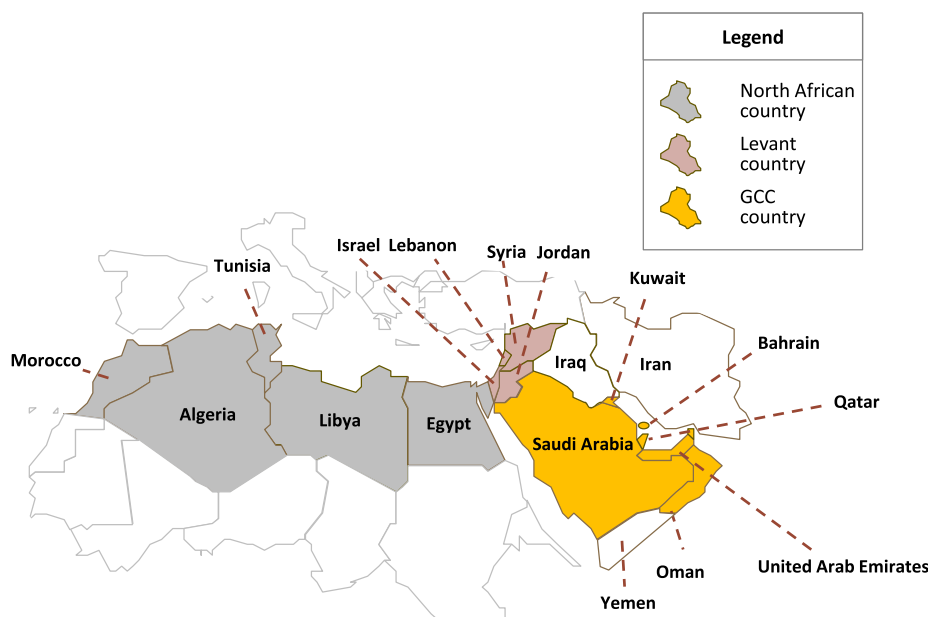


Fig. 1. Countries of the MENA Region.

- North Africa (or Maghreb): Morocco, Algeria, Tunisia, Libya and Egypt
- Mediterranean (or Levant): Jordan, Israel, Palestine (West Bank and Gaza), Lebanon and Syria
- Gulf Cooperation Council (GCC): Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and United Arab Emirates
- Other Middle East: Iran, Iraq (sometime considered in the Levant), Djibouti and Yemen

For the purpose of this work we follow the World Bank definition of MENA with the exception of Djibouti given its location in East Africa (Fig. 1).

It is essential to consider these MENA countries' social, political and economic circumstances as these elements impact their energy systems. The forces that drive energy system change, namely energy security, economic development, energy access and concern for climate and health, have differing levels of influence based on context. Although the MENA region has significant renewable and fossil energy resources, country-specific circumstances lead to very different current states and potentials of the energy system. The following MENA country classifications² are useful in identifying these circumstances (Apergis and Payne, 2014; Devarajan et al., 2016; IMF, 2016b; REN21 et al., 2013; The Economist, 2016):

- Developing countries that are net oil-exporters³ and labor-importing (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and United Arab Emirates)
- Developing countries that are net oil-exporters and labor-abundant (Algeria, Libya, Syria, Iraq, Iran and Yemen)
- Developing countries that are net oil-importers and labor-abundant (Morocco, Tunisia, Egypt, Jordan and Lebanon)

² The only country considered in this work that does not fit within this classification system is Israel, which is a developed, net oil-importing country.

³ For simplicity and in accordance with the approach taken by the International Monetary Fund, the term “oil” is used to mean hydrocarbons, acknowledging that some MENA countries, such as Algeria and Qatar, produce and export a significant amount of natural gas.

Within this classification scheme, “labor-importing” refers to a country with small indigenous population that relies on a substantial expatriate population to meet its labor force needs, particularly in the private sector. As shown in Fig. 2, the labor-importing GCC countries all have populations consisting of greater than 30% expatriates.

The net-oil exporting countries are largely reliant on hydrocarbon exports for overall economic activity and fiscal revenue. According to the IMF’s recent assessment of this group of countries (IMF, 2016b):

- The share of hydrocarbon revenue as percentage of total government revenue in 2014 ranged from 47% in Yemen to 94% in Iraq and averaged 77% across the group.
- Hydrocarbons were the main 2014 export goods, accounting for more than 80% of total exports in half of the countries, and above 60% in all of them except the UAE. For the UAE, non-hydrocarbon exports contributed nearly 70% of total exports but this number included a large share of re-exports.

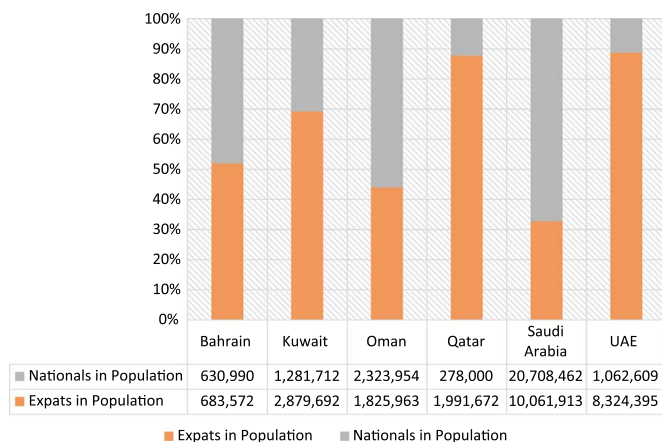


Fig. 2. Population Demographics of the GCC Countries. Sources: Gulf Labor Markets and Migration and BQ Magazine (Gulf LabourMarkets and Migration (GLMM), 2013; Snoj, 2013, 2015)

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