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The Middle East Program in Washington combines in-depth regional knowledge with incisive comparative analysis to provide deeply informed recommendations. With expertise in the Gulf, North Africa, Iran, and Israel/Palestine, we examine crosscutting themes of political, economic, and social change in both English and Arabic.

Using illustrations from Oman and Morocco, this piece argues that economically motivated energy transitions should incorporate climate resilience and environmental targets. Nevertheless, significant challenges persist to that end. Failure to address these challenges will hinder just energy transitions and climate resilience and reduce the ability of Arab states, especially wealthier hydrocarbon exporters with higher emissions and net-zero pledges, to achieve both emissions and equitable economic targets.

For hydrocarbon-importing Arab states, energy security and fiscal balance improvements initially drove expansions in renewable energy. But similar opportunities for new export revenue have driven additional targets for renewable power and plans for green hydrogen. Ambitious renewable energy penetration targets range from 30 percent by 2030 in Tunisia to 52 percent by 2050 in Morocco. Despite their relatively limited fiscal resources, these states lead GCC states in renewable energy.

Emissions reduction to limit rises in temperatures is another opportunity. The MENA region is warming at nearly twice the global average, which is partially attributable to increases in total and per capita emissions.

Although country-specific data are scarce, studies suggest that the MENA region is expected to experience the third-highest GDP losses (6 percent) only from climate-related physical risks, after South and Central Asia and sub-Saharan Africa. Domestic energy transitions will be an important part of reducing local emissions and their ensuing environmental challenges.

Energy transitions are an urgent economic priority for Oman and Morocco, but their pathways to these transitions diverge, reflecting differences in their natural wealth and dependence on hydrocarbons. As seen in table 1, their GDP, total energy consumption, and total emissions are fairly comparable. Yet Morocco"s population is more than 8 times greater than Oman"s, so the latter"s per capita GDP, emissions, and energy consumption levels are seven to nine times higher. Both have significant water stresses, but Oman is the more severely stressed of the two.

Energy transitions are also an opportunity to diversify the energy mix and release additional hydrocarbons for exports. In 2021, oil and natural gas constituted respectively 9.4 percent and 90.5 percent of the total supply, with only a negligible share from renewables (0.4 percent, or 938 terajoules (TJ)). Since 2008, Oman has been importing relatively small amounts of natural gas, which in 2022 reached 2,076 million standard cubic meters

(see figure 2).