How Free Markets Can Drive Environmental Sustainability Across the Arab World?

Mohamed Moutii

Abstract:

This policy brief highlights the vital role of economic freedom in addressing the Arab world's pressing environmental challenges, including water scarcity, climate change, and biodiversity loss. It argues that sustainable development can be achieved through secure property rights, voluntary transactions, and open markets, which drive innovation and enable investment in cleaner technologies. This policy brief also examines the historical relationship between economic freedom and environmental stewardship and advocates for a market-based approach that leverages entrepreneurship and innovation as a more effective strategy for achieving environmental sustainability.

Introduction:

Environmental consciousness is as old as civilization itself. Throughout history, societies have thrived or collapsed depending on their ability to balance their material, cultural, and spiritual needs with the sustainability of their surrounding environment. Civilizations that respected the limits of their ecosystems endured, while those that failed to do so saw decline or disappearance. This historical lesson underscores the critical importance of sustainable environmental stewardship.

Today, environmental sustainability is reshaping global economic relations, influencing trade patterns, industrial placement, and the competitive standing of nations. Within this shifting landscape, the Arab world encounters a unique set of environmental challenges. The region's rich diversity of ecosystems, rapidly growing populations, and varied economic systems contribute to complex environmental issues, such as acute water scarcity, the adverse effects of climate change, heavy dependence on fossil fuels, waste management difficulties, and the ongoing loss of biodiversity. Public sentiment in the region indicates a heightened awareness of these pressing challenges, with many citizens expressing concerns about a perceived decline in environmental conditions over the past decade.

In this context, a strong argument arises for incorporating economic freedom as an essential driver of sustainable development. Economic freedom includes vital components like secure property rights, voluntary exchanges, and open markets, which can stimulate innovation and create a setting that encourages sustainable practices. Economic growth and environmental protection are interconnected. As economies thrive, they enable citizens to invest in environmental preservation and develop cleaner technologies.

This policy brief explores the critical role of economic freedom in addressing the Arab world's environmental challenges. By advocating for market-driven solutions and regulatory frameworks that support innovation, we can harness the potential of free markets to achieve meaningful progress in development and environmental sustainability. The recommendations herein are designed to guide policymakers toward creating a resilient, sustainable future that balances economic growth with ecological integrity, ensuring a healthier environment for generations to come.

Understanding the Arab Region’s Environmental Landscape

Environmental sustainability has emerged as one of the most pressing issues of the 21st century, and the Arab world is no exception to this global challenge.[1] With diverse ecosystems, economies, and political systems, the region faces unique environmental concerns that intersect with its social and economic realities. As populations grow and industrial activities increase, the tension between economic development and environmental preservation becomes more pronounced. Addressing environmental sustainability in the Arab world requires a comprehensive understanding of the region's challenges and opportunities for sustainable development.

Public opinion regarding the environment in the Arab world remains largely critical. A 2017 survey by the Arab Forum for Environment and Development (AFED) revealed that the majority of citizens across 22 Arab countries believe their environment has deteriorated over the past decade, and 95% think that their nation is not doing enough to tackle environmental challenges.[2] Key concerns in the region include:

- **Water Scarcity:** Water scarcity is perhaps the most critical environmental issue facing the Arab world. The region is home to around 5% of the world's population but only 1% of its renewable freshwater resources. 14 Arab countries are among the most water-stressed in the world.[3] By 2050, every country in the Middle MENA region will live under extremely high water stress. If temperatures rise by 4°C, the region would experience a 75 percent drop in freshwater availability, and many countries in the region are expected to warm about 5°C by the end of the century.[4] Overextraction of groundwater, unsustainable agricultural practices, and outdated irrigation techniques have exacerbated the problem, leading to a depletion of natural aquifers and a growing dependence on desalination, which itself presents environmental and economic challenges due to its high energy demands and the impact on marine ecosystems.[5]
- **Climate Change:** The Arab region is particularly vulnerable to the effects of climate change, with rising temperatures, prolonged droughts, and more frequent extreme weather events.[6] Desertification is already a growing problem, especially in countries

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[1] Dervis, Kemal. "Devastating for the World's Poor: Climate Change Threatens the Development Gains Already Achieved." *UN Chronicle*, Edition.

[2] Saab, Najib. *The Arab Environment in Ten Years: Instability Challenges Sustainability*. Secretary General of the Arab Forum for Environment and Development - European Institute of the Mediterranean. https://www.iemed.org/publication/the-arab-environment-in-ten-years-instability-challenges-sustainability/

[3] Laville, Sandra. "Extreme Water Stress Faced by Countries Home to Quarter of World Population." *The Guardian*, August 2023. https://www.theguardian.com/environment/2023/aug/16/extreme-water-stress-faced-by-countries-home-to-quarter-of-world-population#:~:text=The%2025%20most%20water%20stressed,%2C%20Iraq%2C%20India%20and%20Syria.

[4] Hall, Natasha. "Surviving Scarcity: Water and the Future of the Middle East." *Center for Strategic and International Studies (CSIS)*, March 22, 2024. https://features.csis.org/surviving-scarcity-water-and-the-future-of-the-middle-east/

[5] Miller, Sydney, Hilla Shemer, and Raphael Semiat. "Energy and Environmental Issues in Desalination." Desalination 366 (June 15, 2015): 2-8.

[6] Wehrey, Frederic, Justin Dargin, Zainab Mehdi, Marwan Muasher, Maha Yahya, Issam Kayssi, Zaha Hassan, Madison Andrews, Mathew Madain, Mohammad Al-Mailam, Amr Hamzawy, Sarah Yerkes, Haley Clasen, and Gilles Yabi. "Climate Change and Vulnerability in the Middle East." *Carnegie Endowment for International

like Iraq, Syria, and Egypt, where agricultural productivity is under threat. Coastal cities in the Gulf and North Africa, including Alexandria and Dubai, face the risk of rising sea levels, which could displace millions of people and damage vital infrastructure. Climate change also puts stress on food security, as reduced water availability affects agricultural output and increases the region's hardships.

- **Energy Dependence and Carbon Emissions:** The Arab world is one of the most energy-intensive regions in the world, largely due to its reliance on fossil fuels for economic growth and development.[7] Oil-rich nations like Saudi Arabia, Kuwait, and the UAE have long used their energy resources to drive economic growth. However, this has come at the cost of high carbon emissions and environmental degradation. The region's heavy reliance on hydrocarbons is a significant barrier to achieving sustainability and transitioning to renewable energy sources is crucial for reducing the region's oil dependency.
- **Waste Management:** Decades of poor water management, exploding populations, and rising temperatures have degraded the region's land and sapped its limited water supplies.[8] Urbanization and population growth have led to a sharp increase in waste production across the Arab world. Poor waste management systems in the region result in environmental pollution, including water contamination, air pollution from open landfills, and unregulated incineration practices.[9] E-waste and plastic pollution, especially in coastal areas, have emerged as growing concerns, threatening marine biodiversity and ecosystems. The MENA region has the highest per capita plastic footprint and an average MENA resident releases more than 6kg of plastic waste into the ocean yearly.[10]
- **Biodiversity Loss:** The Arab world is home to a wealthy variety of ecosystems, from the deserts of the Arabian Peninsula to the wetlands of Iraq and the Mediterranean coastlines. However, habitat destruction, overfishing, and pollution contribute to a rapid loss of biodiversity. Conservation efforts in the region have needed to be more consistent, with some countries making significant progress while others lag. Protecting these ecosystems is essential for preserving the natural heritage of the Arab region.

Tackling these issues demands integrated strategies that align economic growth with environmental sustainability and a shift in policy and public mindset toward sustainability. By

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Peace*, July 6, 2023. https://carnegieendowment.org/posts/2023/07/climate-change-and-vulnerability-in-the-middle-east?lang=en

[7] United Nations Economic and Social Commission for Western Asia (ESCWA). *Energy Vulnerability in the Arab Region*. 2019.

[8] Hall, Natasha. "Surviving Scarcity: Water and the Future of the Middle East." *Center for Strategic and International Studies (CSIS)*, March 22, 2024. https://features.csis.org/surviving-scarcity-water-and-the-future-of-the-middle-east/

[9] Zhang, Zhechen, Zhonghao Chen, Jiawen Zhang, Yunfei Liu, Lin Chen, Mingyu Yang, Ahmed I. Osman, Mohamed Farghali, Engui Liu, Dalia Hassan, Ikko Ihara, Kun Lu, and David W. Rooney. "Municipal Solid Waste Management Challenges in Developing Regions: A Comprehensive Review and Future Perspectives for Asia and Africa." *Science of The Total Environment* 930 (June 20, 2024): 172794.

[10] Hasegawa, Kanako, Lamia Mansour, Dahlia Lotayef, Suiko Yoshijima, and Andrea Kutter. "Plastic Pollution in MENA Oceans: Transboundary Problem in Need of Transboundary Solutions." *World Bank Blogs*, June 12, 2023. https://blogs.worldbank.org/en/arabvoices/plastic-pollution-mena-oceans-transboundary-problem-need-transboundary-solutions

adopting free market policies and prioritizing ecological resilience, the Arab world can secure a healthier, more sustainable future for its people and natural heritage.

How does Economic Freedom Fuels Sustainable Development?

Economic freedom refers to individuals' ability to make economic decisions. It relies on secure property rights, voluntary transactions, a stable monetary system, open trade, competition, and individual choice, fostering economic growth and human rights. Research indicates that economic freedom enhances well-being, attracts investment, and supports innovation.[11] Sustainability, in turn, seeks to meet present needs without jeopardizing future resources, balancing environmental preservation with economic and social priorities. It differentiates between 'weak' sustainability (resource replacement) and 'strong' sustainability (irreplaceable

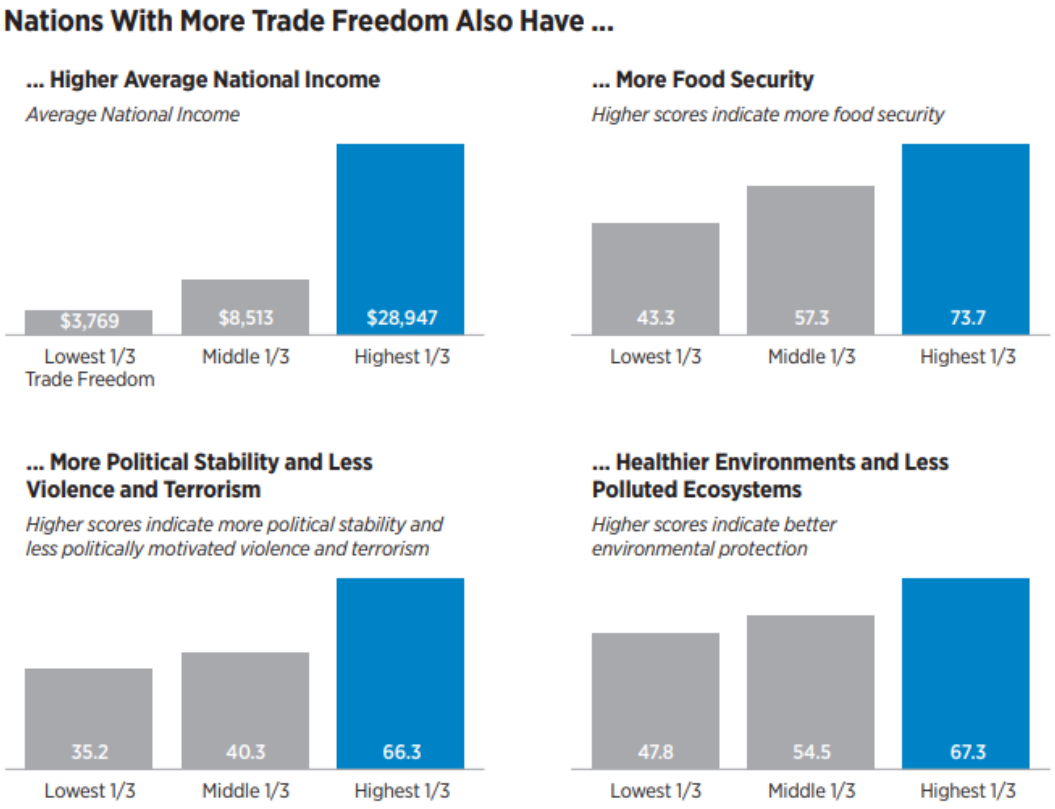
[11] Stroup, M.D. (2007) Economic Freedom, Democracy, and the Quality of Life. World Development, 35(1), 52–66. Available from: https://doi. org/10.1016/j.worlddev.2006.09.003.

resources). Sustainable development integrates economic growth, environmental health, and societal welfare to promote long-term prosperity.

A common argument against economic freedom and free markets is that they drive environmental pollution and climate change. In fact, economic growth and environmental protection are interdependent, not mutually exclusive.[12] As economies grow, citizens can invest more in environmental protection. Policies that hinder economic growth, like excessive taxes or restrictive regulations, can jeopardize prosperity and ecological progress. A strong economy is essential for supporting environmental initiatives, particularly in developing nations, where economic freedom leads to higher income, food security, and political stability.[13]

Research shows a positive relationship between economic freedom and environmental sustainability, particularly in nations with robust property rights and open trade policies.[14] The World Trade Organization (WTO) highlights that free trade a cornerstone of economic freedom supports climate action by efficiently allocating resources, improving living standards, and increasing access to environmental goods. [15]

[12] Bond, Drew, and Anthony B. Kim. "How Economic Freedom Creates a Healthy Environment." *The Heritage Foundation*, March 10, 2021.
[13] Ibid.
[14] De Soysa, I., (2022). Economic freedom vs. egalitarianism: an empirical test of weak & strong sustainability, 1970–2017. Kyklos. https://doi. org/10.1111/kykl.12290.
[15] Tamiotti, Ludivine, Robert Teh, Vesile Kulaçoğlu, Anne Olhoff, Benjamin Simmons, and Hussein Abaza. Trade and Climate Change: WTO-UNEP Report. Geneva: United Nations Environment Programme and World Trade Organization, 2009.



Countries that support open markets and economic freedom have seen faster innovation cycles, fostering green investment and inclusive growth. In contrast, regulatory approaches may hinder economic and environmental progress by not keeping pace with market-driven advancements.[16]

For over 20 years, Yale University's Environmental Performance Index (EPI) has ranked countries on environmental health and ecosystem vitality, with Denmark, Luxembourg, Switzerland, and the UK, consistently at the top, followed by Austria, Finland, Sweden, Norway, and Germany.[17] The EPI report emphasizes that "achieving sustainability requires sufficient economic prosperity to fund public health and environmental infrastructure."[18] The

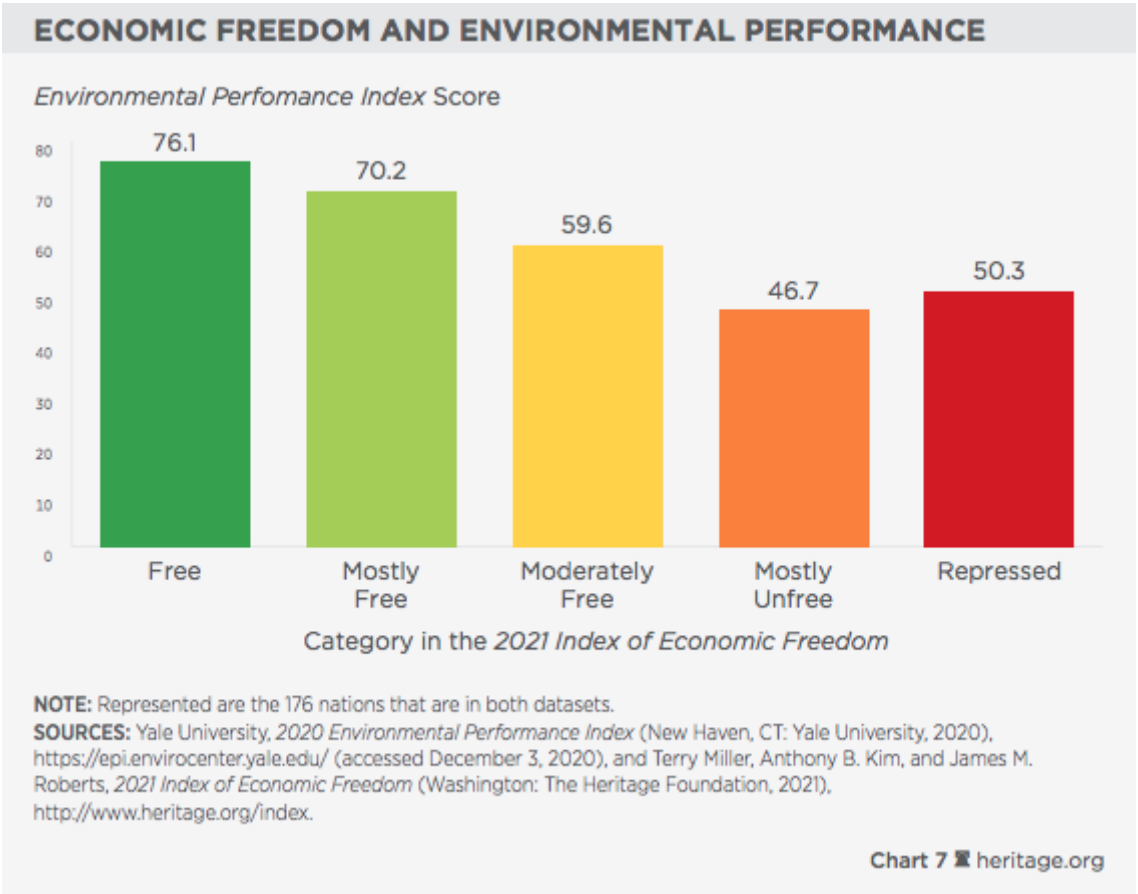
[16] Bond, Drew, and Anthony B. Kim. "How Economic Freedom Creates a Healthy Environment." *The Heritage Foundation*, March 10, 2021.
[17] Environmental Performance Index. 2022 EPI Results. 2022. https://epi.yale.edu/epi-results/2022/component/epi

[18] Ibid.

researchers find a significant positive relationship between environmental performance and national wealth, as measured by GDP per capita.[19] Wealthier nations with high EPI scores invest more in public health and environmental infrastructure. For example, Denmark, Luxembourg, and Switzerland demonstrate how economic prosperity and environmental health reinforce one another.

Conversely, imposing stringent global environmental regulations can stifle the economic growth needed to fund further environmental protections. Regulations often block technological innovation and market trends, focusing on virtue-signaling rather than achieving measurable improvements in environmental quality.

Furthermore, an interesting comparison has been made between the Heritage Foundation's Economic Freedom Index and Yale University's Environmental Performance Index (EPI), indicating a strong correlation between economic freedom and environmental performance.[20] In 2020, "Free" countries had an average EPI score of 76.1, while "Mostly Free" countries scored 70.2, and "Moderately Free" or less free nations scored much lower, at 59.6 and 46.7, respectively.



[19] Ibid.

[20] Zitelmann, Rainer. "The Countries With the Cleanest Environments in the World Are Also the Most Economically Free, Research Shows." *Foundation for Economic Education*, 2021. https://fee.org/articles/the-countries-with-the-cleanest-environments-in-the-world-are-also-the-most-economically-free-research-shows/

A regression analysis from 2006 to 2020 found that a one-point increase in the Economic Freedom Index correlates with a 1.06-point rise in the EPI, reflecting a 67% positive correlation.[21] The findings suggest that free markets can enhance environmental outcomes through technological progress and prosperity. The greater the economic freedom, the better the environmental quality indexes.

Another analysis using Environmental Kuznets Curves (EKCs) across numerous countries suggests that economically free societies transition to lower emissions faster and at lower income levels.[22] In developed, economically free democracies like Australia, Canada, and parts of Northern Europe, emissions reductions have occurred sooner and more efficiently, supporting the notion that economic freedom can accelerate environmental progress. As economies grow, they move toward sustainable practices sooner than restrictive policies could achieve.

For developing countries, economic success is crucial for improving environmental protection and quality of life. Economic growth and environmental management can—and ought to—flourish in unison.

Pathways to Sustainability: Policy Proposals for the Arab Region

Government policies must support innovation without hindering entrepreneurial freedom to unlock the full potential of markets in fostering sustainability. Regulatory frameworks should encourage sustainable practices while preserving the competitive dynamics that drive progress. While environmental challenges can seem formidable, free-market economics offers promising solutions. Several essential drivers contribute to the success of this model, demonstrating how market forces can align economic incentives with environmental stewardship:

- **Property Rights and Resource Stewardship:** Strong property rights incentivize resource owners to manage assets sustainably, as they benefit from long-term resource health. This alignment of ownership with stewardship reduces the risk of overuse seen in commonly held resources and promotes investment in efficient, sustainable practices without extensive government intervention.
- **Embrace Free Trade:** Embracing free trade can boost environmental sustainability in the Arab world by giving access to cleaner technologies, like renewable energy and efficient water management, reducing pollution and resource strain. It also encourages local industries to adopt greener practices to remain competitive and promotes economic diversification away from resource extraction, spurring growth in sustainable sectors like solar and wind energy. This shift aligns economic progress with environmental goals, positioning Arab nations as leaders in green innovation.

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[21] Ibid.

[22] Bjørnskov, Christian. "Economic Freedom and the Greenhouse Gas Kuznets Curve." *European Journal of Political Economy* 82 (March 2024): 102530.

- **Encouraging Green Entrepreneurship and Foreign Investment:** By reducing bureaucratic barriers and fostering a stable legal and regulatory environment, Arab countries can promote the growth of green businesses, creating a climate attractive to international investors who focus on sustainability and positioning the region as a competitive destination for green investment.
- **Avoid Top-down Environmental regulations:** Environmental regulations risk being ineffective and counterproductive, slowing the economic growth vital for meaningful environmental progress. Evidence shows that free economies, with limited government and market openness, enjoy cleaner environments. Heavy-handed climate rules, however, drive up costs for energy and essentials, stifling growth and harming livelihoods. Instead, governments should foster economic strength by reducing taxes and removing barriers to energy innovation.
- **Encourage Competition:** Competition is a powerful catalyst for innovation, prompting businesses to develop cleaner technologies and enhance resource management efficiency. In a competitive market, companies are motivated to invest in research and development to differentiate themselves, leading to breakthroughs in renewable energy, waste reduction, and eco-friendly practices. This relentless pursuit of improvement boosts their profitability and addresses environmental challenges by reducing carbon footprints and promoting sustainable practices.
- **Efficient Resource Allocation:** In a market system, prices reflect resource scarcity, encouraging sustainable use. Pricing water accurately, for instance, would prompt more efficient use and adoption of water-saving technologies, especially critical in agriculture, which accounts for 85% of water usage in the Arab world.[23] Eliminating subsidies on fossil fuels and water—while politically challenging—remains essential for long-term sustainability. Subsidies often distort market signals, limiting the competitiveness of sustainable alternatives.
- **Consumer Choice and Demand:** Consumer preferences are strong forces in markets. As environmental awareness grows in the Arab world, demand for sustainable products and services pushes companies to adopt more eco-friendly practices. More than 65 percent of high-income consumers in Egypt and Morocco, 60 percent in the UAE, and 46 percent in KSA expressed a desire for healthy and organic.[24] This is significantly higher than in more mature European markets, where the intention to buy healthy and organic products is between 24 and 40 percent.[25]Major retailers in the UAE and Saudi Arabia offers now more organic and locally sourced food options, responding directly to consumer demand.
- **Infrastructure Investment:** Infrastructure investment can facilitate market-driven solutions, necessitating significant upgrades to renewable energy grids, waste

[23] Al-Otaibi, Ghanimah. "By the Numbers: Facts About Water Crisis in the Arab World." *World Bank Blogs*, March 19, 2015. https://blogs.worldbank.org/en/arabvoices/numbers-facts-about-water-crisis-arab-world#:~:text=In%20many%20MENA%20countries%2C%2085,on%20good%20agricultural%20irrigation%20policies.

[24] Mckinsey Consumer Survey 2024

[25] McKinsey & Company. *State of Grocery Europe 2024: Signs of Hope*. April 10, 2024. https://www.mckinsey.com/industries/retail/our-insights/state-of-grocery-europe-2024-signs-of-hope

management systems, and transportation networks. Modernizing these infrastructures enables the efficient integration of renewable energy sources, ensuring reliable electricity supply while reducing dependency on fossil fuels. Enhanced waste management systems can promote recycling and waste-to-energy technologies, minimizing environmental impact.

Free markets, driven by competition, consumer choice, and limited government intervention, can be powerful forces for environmental sustainability. By fostering sustainable technology, improving efficiency, and meeting consumer demand, markets can enable transformative solutions to environmental challenges. With prudent governance and supportive policies, Arab nations can achieve a sustainable, resilient future while maintaining economic growth.

Conclusion:

The Arab world stands at a crucial juncture in its journey toward economic development and environmental sustainability. Traditional government interventions have often resulted in inefficiencies and corruption, underscoring the need for a paradigm shift. Adopting a free-market approach—anchored in competition, property rights, and entrepreneurship—can provide the framework necessary to foster innovation and optimize resource use.

By eliminating harmful subsidies, encouraging green entrepreneurship, and empowering local solutions, Arab nations can cultivate a market-driven path to sustainability. The private sector, invigorated by free-market principles, has the potential to address significant environmental challenges while simultaneously creating economic opportunities. However, this transition demands a collaborative effort among governments, businesses, and individuals to establish a supportive policy environment, invest in sustainable infrastructure, and promote responsible practices. A well-designed regulatory framework and long-term commitment to sustainable goals are essential for success.

Adopting free-market economics, alongside robust environmental policies, will allow the Arab world to find a harmonious equilibrium between economic development and environmental care. By leveraging competition, innovation, and consumer preferences, the region can ensure a sustainable and thriving future for future generations.

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