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Model Arab League

BACKGROUND GUIDE

Council of Arab Environmental Affairs Ministers

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National
Council
on US-
Arab
Relations



Original draft by Meghan Oakes, Chair of the Council of Arab Environmental Affairs Ministers at the 2015 National University Model Arab League, with contributions from the dedicated staff and volunteers at the National Council on U.S.-Arab Relations

Honorable Delegates,

Welcome! My name is Meghan Oakes and I am honored to serve as your chair for the Council of Arab Environmental Ministers for the 2015 National University Model Arab League Conference. I am a senior at Virginia Tech University, and have served as a member of Virginia Tech's Model Arab League team for the past four years. This spring, I will receive my Bachelor of Art in International Studies and Religion and Culture. My participation as a delegate has significantly supplemented the pursuit of my degree and my overall college experience. Model Arab League transformed my general interest in the Middle East and North Africa (MENA) into a true appreciation for this historical and culturally rich region. Most importantly, I developed professional skills and lifelong friendships that will continue to grow as I pursue a career in public policy. As a delegate, I hope that you will take as much away from this conference as I have, and continue to study the vibrant and dynamic politics of the members of the League of Arab States.

I would like to applaud your commitment as delegates to resolve these particular topics presented to you as Ministers for Environmental Affairs. The environmental issues and concerns of member states are becoming increasingly prevalent. Member states thrive in the region in the harshest environment, and recent climate change perpetuated this severity. The League of Arab States must cohesively address the consequences of climate change, and develop consciousness and transparent policies for future League-wide environmental stability and sustainability.

As Ministers of the Council of Arab Environmental Affairs, you face the challenging task of addressing the different environmental policies and concerns of member states. Remember, that environmental issues contribute to many of the current economic and civil conflicts devastating member states. As delegates, not only should you establish policies and practices to preserve the environments of member states but also to deter future conflicts. I wish you all the luck in the forthcoming year, and greatly look forward to your accomplishments.

Best wishes,

Meghan Oakes
Chair, Council of Arab Environmental Affairs Ministers

Council of Environmental Affairs Ministers

Topic 1: Considering precautionary measures to avoid chronic water shortages among the Arab League member states with attention given to the causes and impacts of drought and flood incidents

I. Introduction to Topic

A. General Background

The problem to discuss in Topic 1 is one that is no stranger to the League. The “precautionary measures” mentioned in the topic will ultimately hinge on the particular resources and capabilities of each individual state. As water is quintessential for sustaining life, a state’s industries (particularly agriculture), infrastructure, and civil society rely on the availability and accessibility, of it for stability. This particular resource is also the main contributing factor to a state’s economic and social development.¹ It is also worth defining what a ‘chronic water shortage’ entails—its causes, perpetuations, and consequences. Because these shortages are prolonged by climate change, delegates must focus on both short and long term solutions.

More than 1.1 billion people globally currently lack access to adequate water resources.² As a result, it is important to delineate the precise catalysts of droughts and floods on a state-by-state level, as well as these natural disasters’ impacts. In 2030, roughly 47 percent of the world’s population will live in regions undergoing severe water stress.³ The increasing frequency of chronic water shortages are exacerbated by rapid population and economic growth, as well as pollution. These contributors, coupled with climate change, have altered precipitation patterns in several regions of the world and have caused droughts and floods to occur more regularly.

Droughts are distinctive from other environmental hazards not only because they slowly develop over time but also because the onset of a drought is difficult to predict.⁴ Groundwater resources quickly deplete during droughts as states compensate for low precipitation rates.⁵ Floods, of course, develop much more rapidly.⁶ Climate-related environmental disasters, such as droughts or floods, result in a substantial loss of life and economic and infrastructural damage.⁷ Overall, the contributors and effects of chronic water shortages severely alter the economic and social developments of states, while also propelling the possibility of future conflicts.

¹ "Water." *Overview*. World Bank, 24 Mar. 2014. Web. 18 Aug. 2014. <<http://www.worldbank.org/en/topic/water/overview>>.

² Crchnak, Karin. "Water Scarcity- Threats." *WorldWildlife.org*. World Wildlife Fund, Web. 23 Aug. 2014. <<http://www.worldwildlife.org/threats/water-scarcity>>.

³ Arsenault, Chris. "Risk of Water Wars Rises with Scarcity." *Al Jazeera*. Al Jazeera, 26 Aug. 2012. Web. 23 Aug. 2014. <<http://www.aljazeera.com/indepth/features/2011/06/2011622193147231653.html>>.

⁴ "Definition of Disaster Types." *Disaster Definitions*. United Nations International Strategy for Disaster Reduction, Web. 24 Aug. 2014. <<http://www.desinventar.net/definitions.html#letter-a>>.

⁵ Dimick, Dennis. "If You Think the Water Crisis Can't Get Worse, Wait Until the Aquifers Are Drained." *National Geographic*. National Geographic Society, 19 Aug. 2014. Web. 26 Aug. 2014. <<http://news.nationalgeographic.com/news/2014/08/140819-groundwater-california-drought-aquifers-hidden-crisis/>>.

⁶ "Definition of Disaster Types." *Disaster Definitions*. United Nations International Strategy for Disaster Reduction, Web. 24 Aug. 2014. <<http://www.desinventar.net/definitions.html#letter-a>>.

⁷ World Bank, "Water in the Arab World: From Droughts to Flood, Building Resilience against Extremes." *Prevention Web*. United Nations International Strategy for Disaster Reduction, 21 Mar. 2014. Web. 26 Aug. 2014. <<http://www.preventionweb.net/english/professional/news/v.php?id=36895&pid:50>>.

B. History of Topic in the Arab World

Chronic water shortages are one of the most significant environmental challenges among the members of the League of Arab States. The MENA region accounts for roughly 5 percent of the world's population, but less than 1 percent of the world's water and renewable water resources.⁸ Consequently, MENA is the most water scarce region.⁹ Currently, 14 of the world's 20 most water-stressed states resided in the region.¹⁰ The region's present water-stress will worsen, as its water supply is predicted to decrease to 15 percent of what it was in 1960 and then decrease by an additional 20 percent by 2030.¹¹ The enduring effects of climate change have caused recurrent and severe droughts and floods for several member states.

For example, floods in Djibouti in 2004 killed more than 230 people, affected about 100,000 people, and equated to roughly \$11.1 million of damages. Between 2008 and 2011, Djibouti then suffered a severe drought. The drought severely affected Djibouti's economy and reduced its gross domestic product (GDP) by 3.9 percent.¹² Yemen and Saudi Arabia also experienced floods that respectively caused \$1.6 billion and \$1.4 billion of damages. Yemen's damages totaled 6 percent of the state's GDP.¹³ Climate disasters do not only affect member states' economies and societies—they increase member states' susceptibility to chronic water shortages and have sweeping effects throughout the MENA region.

C. Finding a Solution to the Problem: Past, Present, and Future

Many member states have consciously decided to alter their approaches to floods and droughts, primarily through coordination with the World Bank and the World Bank-managed organization Global Facility Disaster Reduction Recovery. For instance, Djibouti is the only state worldwide to conduct a post-disaster needs assessment, which it completed after its 2008-2011 drought. During this time, Djibouti assessed its outdated preparedness and emergency plans, made necessary improvements for its weather monitoring systems, checked for vulnerability for floods and droughts, and updated inadequate early warning systems. From this assessment, Djibouti established a disaster risk management (DRM) policy.

⁸ "UNDP: Water Governance in the Arab Region, Managing Scarcity and Securing the Future." *United Nations Development Program: Regional Bureau of Arab States*, 28 Nov. 2013. 17 Aug 2014.
http://arabstates.undp.org/content/dam/rbas/doc/Energy%20and%20Environment/Arab_Water_Gov_Report/Arab_Water_Gov_Report_Full_Final_Nov_27.pdf

⁹ World Bank, "Water in the Arab World: From Droughts to Flood, Building Resilience against Extremes." *Prevention Web*. United Nations International Strategy for Disaster Reduction, 21 Mar. 2014. Web. 26 Aug. 2014.
<<http://www.preventionweb.net/english/professional/news/v.php?id=36895&pid:50>>.

¹⁰ "UNDP: Arab Water Crisis Is, at Its Core, a Matter of Governance." *United Nations Development Programme in the Arab States*. United Nations International Strategy for Disaster Reduction, 28 Nov. 2013. Web. 18 Aug. 2014.
<<http://arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2013/11/28/undp-arab-water-crisis-is-at-its-core-a-matter-of-governance/>>.

¹¹ ¹¹ "UNDP: Water Governance in the Arab Region, Managing Scarcity and Securing the Future." *United Nations Development Program: Regional Bureau of Arab States*, 28 Nov. 2013. 17 Aug 2014.
http://arabstates.undp.org/content/dam/rbas/doc/Energy%20and%20Environment/Arab_Water_Gov_Report/Arab_Water_Gov_Report_Full_Final_Nov_27.pdf

¹² World Bank, "Water in the Arab World: From Droughts to Flood, Building Resilience against Extremes." *Prevention Web*. United Nations International Strategy for Disaster Reduction, 21 Mar. 2014. Web. 26 Aug. 2014.
<<http://www.preventionweb.net/english/professional/news/v.php?id=36895&pid:50>>.

¹³ World Bank, "Water in the Arab World: From Droughts to Flood, Building Resilience against Extremes." *Prevention Web*. United Nations International Strategy for Disaster Reduction, 21 Mar. 2014. Web. 26 Aug. 2014.
<<http://www.preventionweb.net/english/professional/news/v.php?id=36895&pid:50>>.

In general, a DRM policy consists of risk assessments, early warning systems, risk management laboratories, and a knowledge center. Algeria, Egypt, Lebanon, Morocco, and Yemen also established DRM policies within their respective governments.¹⁴ The DRM policy enables member states to better prepare for climate disasters, and decrease the impact potential disasters could have on states' social and economic sectors and water resources.

As scarcity is the basis of the region's water crisis, the lack of League-wide coordination to establish precautionary measures is detrimental. The League of Arab States needs to emphasize League-wide policies to adjust to climate change, and better prepare for and deter against environmental disasters. Some member states have already seen improvement from the World Bank's DRM policy, but the League might consider the benefits of comprehensive, League-wide policies to address the contributors to chronic water shortages.

II. Questions to Consider in Your Research

- How water-stressed is your state?
- What are the predictions for your state's water preserves?
- How has climate change affected your state?
- How influential are droughts and floods to your state?
- Does your state currently have a form of a disaster preparedness plan?
- What precautionary measures have your state enacted to address the possibility of chronic water shortages?

III. Questions a Resolution Might Answer

- What precautionary measures should the League of Arab States implement to prevent chronic water shortages?
- How can the League of Arab States adapt to climate change and mitigate its enduring effects?
- What are the components of a League-wide disaster preparedness policy?

IV. Resources to Review

The World Bank Water Overview:

<http://www.worldbank.org/en/topic/water/overview#1>

The World Wildlife Organization Water Scarcity Overview:

<http://www.worldwildlife.org/threats/water-scarcity>

United Nations Development Program in the Arab States Arab Water Governance Report:

http://arabstates.undp.org/content/dam/rbas/doc/Energy%20and%20Environment/Arab_Water_Gov_Report/Arab_Water_Gov_Report_Full_Final_Nov_27.pdf

¹⁴ World Bank, "Water in the Arab World: From Droughts to Flood, Building Resilience against Extremes." *Prevention Web*. United Nations International Strategy for Disaster Reduction, 21 Mar. 2014. Web. 26 Aug. 2014. <<http://www.preventionweb.net/english/professional/news/v.php?id=36895&pid:50>>.

Topic 2: Establishing safe and environmentally sustainable infrastructure standards in emerging industries with special consideration given to the mining industry

Introduction to Topic

A. General Background

The verb ‘establish’ generally denotes a concrete and permanent creation of a concept, idea, or vision, meaning that this topic should result in some specific, technically-oriented outcomes. In the case of Topic 2, ‘standards’—a requirement by which companies, initiatives, and industries are held—are a necessity within a myriad of Arab environmental industries to properly ascertain their sustainability. Because the industries outlined by this topic are emerging, it is correct to assume that their standards are in the process of developing and may not yet be sustainable, or even safe.

Specifically for many states, especially developing states, the mining industry is considered a prominent contributor to economic development. Not only can mining be lucrative, but the industry itself warrants the attention of private sector developers and provides states with an abundant source of income. However, if left unmonitored, a state’s mining industry can produce severe consequences, such as environmental damage and risk to human health and life. The World Bank did not introduce the need for the improvement of the industry’s environmental performance until the end of the 20th century. States may consider commitments to good governance and transparency in order to mitigate the environmental and safety hazards of their mining industry.¹⁵

Mineral resources are important to a state’s economy. Because of this, states must continue to improve safe and environmentally-sustainable infrastructure within the mining industry. Companies, NGOs, states, and mining communities are becoming increasingly involved in ensuring that benefits of the mining industry maximize sustainability.¹⁶ The establishments of safe and environmentally-sustainable infrastructure standards are important to ensure that the mining industry is a good investment for all states.

Lastly, although Topic 2 does give special attention to the mining industry, delegates will need to procure a list of other relevant emerging industries. As the consumption of energy—whether the source is oil and natural gas or other energy alternatives—persists to be a prominent aspect of environmental degradation, delegates may look to defining standards for the safe and sustainable disposal of petrochemicals, nuclear energy waste, and perhaps even pharmaceutical byproducts.

B. History in the Arab World

Compared to the oil and gas industry, the MENA region has yet to exploit the true potential of its mining industry. States through out the region are currently updating mining laws to encourage

¹⁵ "Results." *Mining: Sector Profile*. Web. 29 Aug. 2014. <<http://www.worldbank.org/en/results/2013/04/14/mining-results-profile>>.

¹⁶ "Resources For OGM." *Oil, Gas, and Mining Unit*. N.p., n.d. Web. 29 Aug. 2014. <<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/0%2C%2CcontentMDK%3A20220960~menuPK%3A509405~pagePK%3A148956~piPK%3A216618~theSitePK%3A336930%2C00.html>>.

investment and organizations such as the World Bank and the International Finance Corporation have also provided developmental and financial assistance.¹⁷ The Arab Industrial Development and Mining Organization (AIDMO) is the regional organization responsible for all industrial development in the Arab world. AIDMO is the coordination body among member states to promote the achievement of quality infrastructure standards throughout the region.¹⁸ This organization also has an established working relationship with the United Nations Industrial Development Organization.¹⁹

For the past several years, various member states have also attended the MENA Mining Show, which annually brings together the region's mining community to promote investment, optimize operations, and build relationships among the community. The MENA Mining Show and others are examples of efforts that provide member states with venues to better develop the region's mining industry.²⁰

C. Finding a Solution to the Problem: Past, Present, and Future

From 2009 to 2010, the AIDMO developed the Arab Standardization Strategy. This strategy provided a regional emphasis on all the components encompassing quality infrastructure standards for industries.²¹ The AIDMO is integral for the continued sustainable development of the League's mining industry and provides member states with the infrastructural standards and framework needed to ensure that mining practices are safe and environmentally friendly. In coordination with AIDMO, the League of Arab States might consider possible policies to better develop the regional mining industry. The League should also consider the research, themes, and developments produced from conferences such as the MENA Mining Show when establishing infrastructural standards.

II. Questions to Consider in Your Research

- What is your state's involvement in the region's mining industry?
- What are your state's current mining capabilities?
- How developed is your state's mining infrastructure?
- How safe and environmentally sustainable is the infrastructure?

III. Questions a Resolution Might Answer

- What are the ways that the League of Arab States could expand the role of AIDMO?
- What infrastructure policies can the League develop to supplement AIDMO?

¹⁷ DLA Piper, "Mining in Africa and the Middle East." Sept 2012. Aug 29 2014.

<http://www.dlapiper.com/~media/Files/Insights/Publications/2012/09/Mining%20in%20Africa%20and%20the%20Middle%20East%20A%20Legal%20Overview/Files/miningafricamiddleeast/FileAttachment/miningafricamiddleeast.pdf>

¹⁸ "Founding Organizations : AIDMO." ARAC. N.p., n.d. Web. 29 Aug. 2014.

<http://arabarac.org/index.php?option=com_content&view=article&id=71&Itemid=155>.

¹⁹ "Founding Organizations : AIDMO." ARAC. N.p., n.d. Web. 29 Aug. 2014.

<http://arabarac.org/index.php?option=com_content&view=article&id=71&Itemid=155>.

²⁰ "About | MENA Mining 2014." *MENA Mining 2014*. Web. 29 Aug. 2014.

<<http://www.terrapinn.com/exhibition/menaminingshow/about.stm>>.

²¹ "The Arab Industrial Development and Mining Organization." *Founding Organizations : AIDMO*. Arab Accreditation, n.d. Web. 04 Sept. 2014. < http://arabarac.org/index.php?option=com_content&view=article&id=71&Itemid=155>.

- How can the League expand the region's mining industry?

IV. Resources to Review

The World Bank Mining Sector Results Profile:

<http://www.worldbank.org/en/results/2013/04/14/mining-results-profile>

DLA Piper Mining in the Middle East and North Africa – A Legal Overview:

http://www.dlapiper.com/~media/Files/Insights/Publications/2012/09/Mining%20in%20Africa%20and%20the%20Middle%20East%20A%20Legal%20Ove___/Files/miningafricamiddleeast/Files/miningafricamiddleeast/Files/miningafricamiddleeast/Fi leAttachment/miningafricamiddleeast.pdf

Arab Accreditation Profile on AIDMO:

http://arabarac.org/index.php?option=com_content&view=article&id=71&Itemid=155

Topic 3: Discussing the use of alternative energy in order to decrease dependency on oil and gas production League-wide by 2025.

I. Introduction to Topic

A. General Background

With the large supply of hydrocarbons in many League member states, it may seem natural that the region is dependent on non-renewable energy sources. Within the 21st century, however, the League, as well as the rest of the world, has begun to diversify its energy consumption.

‘Alternative energy’ sources frequently include that of solar power, wind power, hydroelectric power, geothermal energy, hydrokinetic energy, and biomass—all with the same aim of decreasing reliance on oil and natural gas.²² Because the language of Topic 3 centers on ‘discussion’—the consideration or analysis of a particular subject or action—a broad scope is given to delegates wishing to popularize any number of solutions without necessarily expecting immediate action.

Oil and natural gas have been the primary energy sources for the international economy since the Industrial Revolution of the 19th century. Currently, about 3.5 billion people reside in states rich in oil and gas.²³ However, with concern in the scientific community and worldwide over climate change, alternative energy sources are being explored because high levels of carbon dioxide emissions are believed to contribute to climate change.²⁴ In response, nations are allocating more resources to the development and use of alternative energy in order to reduce their emissions of greenhouse gases.

There are several different types of alternative energy sources, the foremost of which are wind and solar power. Many countries are currently developing wind farms filled with turbines to harness air currents and convert the currents to emission-free energy. However, solar power is the most adaptable alternative energy source: a various range of technologies, unlike wind power, can be used to harness the sun’s natural energy.²⁵

Though the discussion of alternative energy sources is typically fruitful, delegates must keep in mind the 2025 deadline, as some solutions to non-renewable energy dependency may require both a lengthier timeline and interminable benchmarks.

²² "Sources of Renewable Energy | UCSUSA." *Union of Concerned Scientists*. N.p., n.d. Web. 29 Aug. 2014. <http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/>.

²³ "Extractive Industries." *The World Bank*, 26 Mar. 2014. Web. 28 Aug. 2014. <<http://www.worldbank.org/en/topic/extractiveindustries/overview#1>>.

²⁴ "Carbon Dioxide Emissions." *EPA*. Environmental Protection Agency, Web. 27 Aug. 2014. <<http://www.epa.gov/climatechange/ghgemissions/gases/co2.html>>.

²⁵ "Sources of Renewable Energy | UCSUSA." *Union of Concerned Scientists*. N.p., n.d. Web. 29 Aug. 2014. <http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/>.

B. History in the Arab World

Historically, oil and natural gas production has dominated the MENA's regional energy infrastructure.²⁶ The MENA region is critical to the world's energy market, with 70% of the world's oil reserves and 50% of gas reserves currently estimated within the region²⁷. Many member states are in turn members of the Organization of the Petroleum Exporting Countries as well as the separate Arab Organization of Petroleum Exporting Countries.

Population growth and rapid urbanization has led to an increase in member states' local demand for energy. Member states are beginning to acknowledge that it is more viable to decrease local dependency on oil and gas, and instead increase local use of alternative energy sources.²⁸ The physical geography of the MENA region contributes to member states' adeptness for the widespread use of alternative energy, particularly wind and solar power. For those member states with fewer oil and natural gas resources, alternative energy acts as a substitute to avoid the importation of oil, which can be very expensive and a drag on the economy.²⁹ Member states possessing vast oil reserves have profited immensely from its sale, and thus hope to offset domestic demand with alternatives to maintain high oil sales.³⁰ Arab states both rich and poor could benefit from alternative energy, choosing the most sustainable options for their economies and the environment.

The private sector has been fundamental in utilizing the potential for alternative energy across the region. The United Arab Emirates' (UAE) renewable energy company, Masdar, is an international leader for investing in wind projects overseas. Masdar is also a major investor in the wind power project in Jordan, which is the Middle East's first utility-scale wind project. When operational, this wind farm is expected to increase Jordan's total power capacity by 3 percent. Masdar also submitted a proposal to the UAE to begin construction on turbines on Sir Bani Yas Island, and is considering other potential locations in Egypt and Morocco.³¹ Morocco, however, currently has the largest wind farm in Africa, the Tarfaya farm. The Tarfaya farm is the fourth wind farm constructed and operated by Nareva, an energy subsidiary of the Moroccan National Investment Company. The Tarfaya farm is projected to save Morocco an equivalent of \$200 million of imported oil annually, and contribute up to 15 percent of Morocco's goal of

²⁶ Cronin, Sean. "Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National." *Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National*. The National, 14 June 2014. Web. 19 Aug. 2014. <<http://www.thenational.ae/business/industry-insights/energy/qa-emad-ghaly-the-head-of-wind-power-for-the-middle-east-at-siemens>>.

²⁷ "IIF Teleconference: Egypt, Tunisia and the Long Shadow of the "Arab Spring" in the MENA Region." *The Institute of International Finance, Inc.* The Global Association of the Financial Industry, n.d. Web. 28 Aug. 2014. <<http://www.iif.com/emr/mena/>>.

²⁸ Cronin, Sean. "Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National." *Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National*. The National, 14 June 2014. Web. 19 Aug. 2014. <<http://www.thenational.ae/business/industry-insights/energy/qa-emad-ghaly-the-head-of-wind-power-for-the-middle-east-at-siemens>>.

²⁹ Karam, Souhail. "Morocco to Start Work on 500 MW Solar Plant in 2012." Reuters 22 May 2012. Web. 10 September 2014. <<http://www.reuters.com/article/2012/05/22/renewables-maghreb-idUSL5E8GMAJV20120522>>.

³⁰ Dreazen, Yochi. "UAE: Powering Down." Pulitzer Center on Crisis Reporting, 16 April 2012. Web. 10 September 2014. <<http://pulitzercenter.org/reporting/masdar-carbon-neutral-uae-emirates-renewable-energy>>.

³¹ Cronin, Sean. "UAE Looks to Tap Vast Potential of Wind Power | The National." *UAE Looks to Tap Vast Potential of Wind Power | The National*. The National, 14 June 2014. Web. 16 Aug. 2014. <<http://www.thenational.ae/business/industry-insights/energy/uae-looks-to-tap-vast-potential-of-wind-power>>.

generating 2,000 mega-watts of wind energy by 2020.³² In 2013, the African Development Bank and the World Bank jointly convened with Algeria, Egypt, Jordan, Libya, Morocco, and Tunisia to review and upgrade these member states' investment plans for the development of concentrated solar plants, of which the Climate Investment Fund is the primary investor. These solar power plants will be constructed over a three-to-five year period.³³

C. Finding a Solution to the Problem: Past, Present, and Future

Member states are increasingly interested in the development of alternative energy, but the overall assessment of the potential League-wide has been relatively slow. The private sector is primarily responsible for the current development and implementation of alternative energy projects in several member states, with Jordan as a prime example.³⁴ In order to decrease League-wide dependency on oil and gas production by 2025, the League of Arab States might consider instituting a greater emphasis on the research and development of alternative energy. The League of Arab States has fewer variables to consider for the development of solar power projects compared to wind projects; not all member states have ideal conditions for the development of wind projects and the use of new wind turbines designed for lower-speed winds needs to be further examined.³⁵

Unfortunately, the development and implementation of alternative energy sources are often costly. The Council might consider how to implement League-wide use of alternative energy by 2025, with particular consideration for the disparity of wealth among member states. The development of either a wind or solar power plant in a state requires the construction of an extensive supportive infrastructure, and great coordination with a state's local government structures. Ongoing civil conflicts in the region also pose a significant, if obvious, challenge.

II. Questions to Consider in Your Research

- What are your state's current oil and gas reserves?
- How will the perspective decrease in dependency on oil and gas production affect your state's economy and energy industry?
- What are your state's capabilities for the development of alternative energy projects?
- What obstacles could prevent the development of alternative energy in your state?

³² Zegly, Btissam. "Morocco's Wind Industry Blooming - Al-Monitor: The Pulse of the Middle East." *Al-Monitor*. Telquel, 19 May 2014. Web. 17 Aug. 2014. <<http://www.al-monitor.com/pulse/business/2014/05/morocco-wind-energy-projects.html>>.

³³ Duarte, Mafalda. "North African and Middle East Countries Poised to Upgrade Concentrated Solar Power Use with AfDB, World Bank, and CIF Support." - *African Development Bank*. N.p., 04 May 2013. Web. 28 Aug. 2014. <<http://www.afdb.org/en/news-and-events/article/north-african-and-middle-east-countries-poised-to-upgrade-concentrated-solar-power-use-with-afdb-world-bank-and-cif-support-11663/>>.

³⁴ "Solar Update." Solar GCC Alliance. Solar GCC Alliance, n.d. Web. 9 Sept. 2014. <<http://www.solargcc.com/jordan-solar/>>.

³⁵ Cronin, Sean. "Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National." *Q&A: Emad Ghaly, the Head of Wind Power for the Middle East at Siemens | The National*. The National, 14 June 2014. Web. 19 Aug. 2014. <<http://www.thenational.ae/business/industry-insights/energy/qa-emad-ghaly-the-head-of-wind-power-for-the-middle-east-at-siemens>>.

III. Questions a Resolution Might Answer

- Aside from wind and solar power, what other alternative energy sources would be beneficial to the specific regional needs of the League of Arab States?
- How will member states compensate for the loss of wealth resulting from decreased dependency on oil and gas production/sales?
- How can the League of Arab States best motivate states to pursue the development of alternative energy?

IV. Resources to Review

United Nations Economic and Social Commission for Western Asia Progress Achieved on Energy for Sustainable Development In the Arab Region:

http://www.un.org/esa/sustdev/csd/csd14/escwaRIM_bp.pdf

UAE Directorate of Energy and Climate Change MENA Renewables Status Report:

http://www.ren21.net/Portals/0/documents/activities/Regional%20Reports/MENA_2013_lowres.pdf

International Monetary Fund Regional Economic Outlook Update—MENA:

<http://www.imf.org/external/pubs/ft/reo/2014/mcd/eng/pdf/menacca0514.pdf>

Topic 4: Determining effective methods to counter deforestation and desertification, particularly in order to mitigate negative consequences on arable land, wildlife populations, habitat vitality, and air quality.

Introduction to Topic

A. General Background

At first glance, the scope of Topic 4 is broad, though it is clear: delegates are tasked with combatting deforestation and desertification. However, upon closer inspection, Topic 4 demands solutions with very exact outcomes, namely those that serve to protect arable land, wildlife populations, habitat vitality, and air quality from further environmental damage. The adjective “effective” insists that any initiative towards countering deforestation and desertification must already be proven and established, perhaps not only in the League of Arab States, but also globally. After this has been accomplished, delegates should determine solutions that are the most sufficient for the many climates of the MENA region, so as to counter both matters most conclusively.

The issues of deforestation and desertification are prominent threats to the global environment. Deforestation is the clearing of forests on a massive scale, either with fires, clear-cutting, ranching, logging, or climate change degradation. Deforestation can weaken the overall air quality by increasing emissions of carbon dioxide and other greenhouse gases. This can lead to increased temperatures, changes in weather patterns, and the disruption of the water cycle. Deforestation can also result in soil erosion and thus decrease a land’s arability.³⁶ Deforestation also threatens wildlife populations. Roughly 70 percent of the world’s land wildlife thrives in forests³⁷.

Alternatively, desertification is the persistent degradation of dryland ecosystems resulting from human activities, like poor agricultural practices, mining, ranching, clear-cutting, or climate change degradation, coupled with water and wind erosion. Desertification results in the stripping of nutrients from arable lands and the subsequent transformation into deserts. Developing states are more susceptible to the consequences of deforestation and desertification because these states lack effective practices and resources to avoid and counter these environmental threats.³⁸

B. History in the Arab World

Desertification is a significant environmental threat to member states, and greatly reduces the availability of arable land. The MENA region’s terrain is more than 80% desert.³⁹ In 2009,

³⁶ Cesareo, Kerry. "Deforestation." *WorldWildlife.org*. World Wildlife Fund, Web. 27 Aug. 2014. <<http://www.worldwildlife.org/threats/deforestation>>.

³⁷ "Deforestation Facts, Deforestation Information, Effects of Deforestation - National Geographic." *National Geographic*. National Geographic, n.d. Web. 28 Aug. 2014. <<http://environment.nationalgeographic.com/environment/global-warming/deforestation-overview/>>.

³⁸ "Desertification." *UN News Center*. UN, Web. 27 Aug. 2014. <<http://www.un.org/en/events/desertificationday/background.shtml>>.

³⁹ "UNDP: Arab Water Crisis Is, at Its Core, a Matter of Governance." *United Nations Development Programme in the Arab States*. United Nations International Strategy for Disaster Reduction, 28 Nov. 2013. Web. 18 Aug. 2014.

desertification threatened approximately one-fifth on the MENA region.⁴⁰ Deforestation is primarily responsible for land degradation. Air pollution across the MENA region is generally low; however, it remains a local concern for many member states, particularly in urban areas.⁴¹

C. Finding a Solution to the Problem: Past, Present, and Future

The United Nations Convention to Combat Desertification (UNCCD) was established in 1994 and is the only international agreement in which a state's environmental development is linked to sustainable land management. The UNCCD specifically focuses on drylands, how to maintain and restore land and soil productivity, and decreasing the consequences of drought. All member states have ratified this binding agreement, but have not sufficiently adhered to it.⁴²

Most policies addressing desertification in the MENA region are also merely monitoring exercises. In order to better combat desertification and its environmental consequences, the League of Arab States might better emphasize the provisions of the UNCCD and consider the development of specific League-wide policies and initiatives dedicated to the reduction of desertification. The League might also continue to utilize and expand the role of the Arab Centre for the Study of Arid Zones and Dry Lands and the International Center for Agricultural Research in the Dry Areas. These institutions specifically address the conservation and development of natural resources in arid lands.⁴³ Increased partnerships with these institutions and others can provide member states with the resources necessary to better mitigate the growth and consequences of desertification.

Morocco, Sudan, and Tunisia are the only member states currently partnering with the United Nations Initiative on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD). These member states have access to UN-REDD's knowledge-sharing database and can provide for the development of a national program, if so desired.⁴⁴ Deforestation is not as far-reaching as desertification across member states, but the League should not disregard it. The League could implement simple policies so that member states may better monitor deforestation and its subsequent contribution to climate change. For example, the League lacks a comprehensive system to monitor air pollution levels—only a few member states, such as Egypt and Lebanon, monitor their local air pollution levels.⁴⁵ The League might consider the

<<http://arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2013/11/28/undp-arab-water-crisis-is-at-its-core-a-matter-of-governance/>>.

⁴⁰ Ali Al-Zu'bi7, Maha. "Tag Archives: Land Degradation in Middle East." *EcoMENA*, 7 Dec. 2013. Web. 29 Aug. 2014.

<<http://www.ecomena.org/tag/land-degradation-in-middle-east/>>.

⁴¹ "UNDP: Arab Water Crisis Is, at Its Core, a Matter of Governance." *United Nations Development Programme in the Arab States*. United Nations International Strategy for Disaster Reduction, 28 Nov. 2013. Web. 18 Aug. 2014.

<<http://arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2013/11/28/undp-arab-water-crisis-is-at-its-core-a-matter-of-governance/>>.

⁴² "About the Convention." *UNCCD*. Web. 29 Aug. 2014. <<http://www.unccd.int/en/about-the-convention/Pages/About-the-Convention.aspx>>.

⁴³ Ali Al-Zu'bi7, Maha. "Tag Archives: Land Degradation in Middle East." *EcoMENA*, 7 Dec. 2013. Web. 29 Aug. 2014.

<<http://www.ecomena.org/tag/land-degradation-in-middle-east/>>.

⁴⁴ "UN-REDD Programme Regions and Partner Countries." *UN-REDD Programme*. Web. 29 Aug. 2014. <http://www.un-redd.org/Partner_Countries/tabid/102663/Default.aspx>.

⁴⁵ Esty, Daniel C., Marc A. Levy, and Andrew Winston. "Environmental Sustainability in the Arab World." *Environmental Sustainability in the Arab World*: 236-48. *Yemen Embassy*. Yemen. Web. 29 Aug. 2014.

<http://www.yemenembassy.org/economic/Reports/WEF/Page_236_248_Environment.pdf>.

implementation of an air pollution monitoring system across the MENA region in order to better assess the spread of deforestation and its consequences.

II. Questions to Consider in Your Research

- How is your state affected by deforestation and desertification?
- What measures has your state nationally implemented to counteract the consequences of deforestation and desertification?

III. Questions a Resolution Might Answer

- How can the League of Arab States improve the collaborative effort among member states to reduce the effects of deforestation and desertification?
- What sort of League-wide practices are needed to reduce the spread and impact of deforestation and desertification?
- How can the League improve the quality of its arable land?

IV. Resources to Review

United Nations Convention to Combat Desertification:

<http://www.unccd.int/en/Pages/default.aspx>

EcoMENA Combating Desertification in MENA:

<http://www.ecomena.org/tag/land-degradation-in-middle-east/>

The World Bank MENA Environment Sector Brief:

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,contentMDK:20525954~pagePK:146736~piPK:226340~theSitePK:256299,00.html>