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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 Carson McCallum, Chair of the Council of Arab Environmental Affairs Ministers at the 2016 National University Model Arab League, with contributions from the dedicated staff and volunteers at the National Council on U.S.-Arab Relations

Honorable Delegates,

My name is Carson McCallum and it is an honor to serve as your chair for the Council of Arab Environmental Affairs Ministers. I am an English major with a Secondary Education minor at Converse College and this will be my second academic year participating in Model League as a member of the Converse College Model League team.

The Model Arab League program has had a tremendous impact on my life and has made my academic experience more enjoyable. By providing a forum for expression and problem solving of major issues within the Arab world, I believe that the programs allow for establishing lasting relationships and create within ourselves a better understanding for surrounding peoples and environments. The program also brought the realization that the issues we debate are not so entirely foreign. We can all play a role and have an impact in the world and on it.

The environment of the world is quickly changing and more threats are coming at it every day. It is the task of this Council to assess these threats and brainstorm lasting, effective solutions for a safer, healthier environment in the Middle East and North African region. I look forward to the work that we will achieve on this front and to hearing each of your contributions toward solving these problems.

I hope you all have an enjoyable, successful year and I look forward to seeing all of you in committee!

Until Then,

Carson McCallum
Chair, Council of Arab Environmental Affairs Ministers

Topic 1: Exploring private and public support for new technologies to reduce carbon emissions such as efficiency standards, carbon-capture, renewables, and new fuels

I. Introduction to Topic

A. General Background

The public sector of any economy is one that provides governmental services such as transportation, police, education, and healthcare to its citizens. This sector of government is the one concerned with the population as a whole. If a company or corporation is run by the government, it is part of the public sector. On the other hand, the private sector includes for-profit agencies unconnected to the government; these corporations and companies are not state-controlled and are primarily concerned with earning a profit.¹

Renewables resources refer to substances that may be consumed and replenished on a relatively equal basis, such as energy sources like solar power, wind power, biomass, and hydro-powered systems. Some of these renewable resources are at an endless supply while others require considerable time or effort placed into renewal.² Carbon emissions, or carbon dioxide gas (CO₂), are gases released from burning fossil fuels, which have been linked to climate change.

B. History of Topic in the Arab World

A 2011 study reported that carbon emissions in the MENA region had doubled in the past 30 years; oil-rich nations lead this rise, because even though they only contribute a little to the share of global emissions, they “lead the way in emissions per capita...with their citizens creating two to ten times the amount of emissions of the average global citizen.”³ Wealthier nations, most of which are major oil producers, far exceed poorer nations when it comes to carbon emissions output. In this same report, Qatar was found to have the world’s highest carbon footprint at ten times the global average, which is 55.4 tons of CO₂ per person. Kuwait, the United Arab Emirates, and Bahrain follow Qatar, respectively.⁴ The Palestinian territories were reported to have the smallest footprint in the MENA region—and one of the smallest in the world—at 0.6 tons per person per year.

The Middle East is not totally unfamiliar with carbon capture and storage (CCS) projects, which can capture close to 90% of CO₂ emissions produced by consumptive industries, thereby preventing their release into the atmosphere.⁵ There are currently 23 active and 53 planned CCS projects globally, some of which are in Arab League member states such as the UAE, Kuwait, and Qatar. Specifically, representatives of the Emirati government have mentioned that enhanced

¹ "Difference Between Public Sector and Private Sector (with Comparison Chart) - Key Differences." Key Differences. N.p., 20 May 2015. Web. 02 Sept. 2015. <http://keydifferences.com/difference-between-public-sector-and-private-sector.html>.

² "Renewable Resource." Investopedia.com. Investopedia, n.d. Web. 6 Aug. 2015. http://www.investopedia.com/terms/r/renewable_resource.asp

³ Worland, Justin. "The Strange Cause of Air Pollution Decline in the Middle East." Time. Time, 21 Aug. 2015. Web. 22 Aug. 2015. <http://time.com/4005619/air-pollution-middle-east/>

⁴ Ibid.

⁵ "What is CCS?" CCSA. Web. 20 Aug. 2015. <http://www.ccsassociation.org/what-is-ccs/>

oil recovery (EOR) “soon will become a necessity rather than an option for the country.” EOR, which is a technique used to extract a larger amount of crude oil from an oil field than would naturally occur, has already been utilized in the region, however, due to the demands of the market and concerns over environmental stability, the UAE is looking to diversify its portfolio with more CCS projects. Unfortunately this will be an expensive endeavor, as the infrastructure required for such projects does not yet exist. This expense has not hindered the establishment of CCS projects; for instance in 2012, Kuwait began one such project that planned to capture up to 450 tons of CO₂ daily from already-existing oil refinement facilities. Likewise, Qatar has committed \$70 million USD for a ten-year CCS research and development project.⁶

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

The growth of the Middle East and North Africa’s market in renewable energy is largely driven by increases in demand, rising levels of urbanization, the regional economy, and water scarcity. This growth has been attributed to the creation of a handful of regional cooperation initiatives and institutional activities, such as the International Renewable Energy Agency (IRENA) in the UAE; Masdar, a renewable energy investment and development initiative, also in the UAE; the King Abdullah City for Atomic and Renewable Energy in Saudi Arabia; and the Regional Center for Renewable Energy and Energy Efficiency (RCREEE), based in Egypt.⁷

Although members of the League have given much consideration to the reduction of carbon emissions, further solutions are still necessary in terms of environmental and economic sustainability. Climate change has every potential to cause serious damage within the region and carbon emissions are a huge contributor. Moving forward, the Council should examine the amount of support given by the private and public sectors in response to alternative technologies that will reduce carbon emissions. Resolutions should focus on solutions that impact the Arab League as a whole, while bearing in mind the resources, capabilities, needs, and climates of individual member states.

II. Questions to Consider in Your Research

- How can efficiency standards affect carbon emissions?
- What are the technological capabilities required for CCS projects already established within my country, if any?
- What technologies can be used to reduce carbon emissions? Is my country capable of employing them and would they make a difference?
- What are the current energy efficiency standards within my country? How effective are they?
- What types of renewables and fuels are used within my country? How much?

III. Questions a Resolution Might Answer

⁶ Henni, Abdelghani. “Harnessing Carbon Dioxide in the Middle East.” Web. 20 Aug. 2015.

<http://www.spe.org/jpt/article/6452-harnessing-carbon-dioxide-in-the-middle-east/>

⁷ MENA Renewables Status Report.” 2013. 14 Aug. 2015.

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

- How have carbon emissions affected the health of the environment in the region?
- Can damage inflicted by these emissions be reversed?
- How can the energy industry advance and still play a role in safeguarding the environment?

IV. Resources to Review

- [Renewable Energy Investment in MENA](#)
- [Energy Subsidies in MENA](#)
- [Renewable Energy Policies in MENA](#)
- [Renewable Energy and Nuclear Energy Development](#)

Topic 2: Evaluating methods for sustainable agricultural development, particularly in post-conflict areas, to reverse soil erosion, salt intrusion, overuse of fertilizers and pesticides, etc.

I. Introduction to Topic

A. General Background

Approximately two billion hectares of land currently used by humans are degraded, whether by erosion, salt intrusion, overuse of pesticides, climate change, or natural disaster. Of this land used for agricultural purposes, up to 40% is seriously damaged, which certainly endangers the economy, wellbeing, and security of those reliant on it.⁸ Part of this ongoing dilemma is past and present conflict in the region. For example, a March 2015 study conducted by the New York Times entitled, “Syria After Four Years of Mayhem,” depicts a series of night-time satellite pictures showing how ongoing conflicts have affected the country’s landscape. As evidenced by this study and world news reports, many of Syria’s ancient landscape, cities, and villages have been destroyed in addition to over 200,000 casualties.⁹ Of significance here is the term “Fertile Crescent,” which according to scientists, has “the highest concentration of wild crop plants needed to produce new food varieties.” Unfortunately, the Fertile Crescent happens to encapsulate an area rife with conflict and civil war, affecting Jordan, Palestine, Israel, Syria, Lebanon, and Turkey.¹⁰

The Council should take note of two types of erosion, namely geological erosion, which occurs naturally, and accelerated erosion, which is influenced by the actions of man.¹¹ More specifically, soil erosion is caused by serious influxes of water and wind, which uproot and disrupt the natural movements and dispositions of the soil. On the other hand, salt intrusion, also known as saltwater intrusion, is when “ground-water pumping can reduce freshwater flow toward coastal discharge areas and cause saltwater to be drawn toward the freshwater zones of the aquifer.”¹² It is important to note that this can be a human-influenced pollution affected by groundwater developments in coastal areas.¹³ The final section of the topic addresses the overuse of fertilizers and pesticides on farmlands in post-conflict areas; addressing this topic is vital to the longevity and security of agricultural practices in the region, on which many member states are reliant.

B. History of Topic in the Arab World

⁸ “International Center for Agricultural Research in the Dry Areas (ICARDA).” CGIAR. Web. 15 Aug. 2015. <http://wle.cgiar.org/research-programs/rainfed-systems-strategic-research-program/>

⁹ Lai, K.K.Rebecca, Sergio Pecanha, and Jeremy White. “Syria After Four Years of Mayhem” 12 March 2015. Web. 18 Aug. 2015. <http://www.nytimes.com/interactive/2015/03/12/world/middleeast/syria-civil-war-after-four-years-map.html?ref=middleeast>

¹⁰ Zolfagharifard, Ellie. “Could the Middle East conflict trigger worldwide famine?” 8 Sept. 2014. Web. 14 Aug. 2015. <http://www.dailymail.co.uk/sciencetech/article-2748001/Wars-Middle-East-result-loss-super-crops-Millions-people-starve-valuable-seeds-destroyed-warn-scientists.html>

¹¹ “Soil Erosion.” McGraw-Hill Dictionary of Scientific & Technical Terms, 6E. 2003. The McGraw-Hill Companies, Inc. 24 Aug. 2015 <http://encyclopedia2.thefreedictionary.com/soil+erosion>

¹² “Freshwater-Saltwater Interactions along the Atlantic Coast.” USGS Ground-Water Resources Program (GWRP): Freshwater-Saltwater Interactions along the Atlantic Coast. Web. 2 Nov. 2015.

¹³ “Saltwater Intrusion.” Saltwater Intrusion. Solinst, n.d. Web. 02 Sept. 2015. <http://www.solinst.com/resources/papers/101c4salt.php>.

The majority of the lands in the MENA region are arid and dry, and any sudden change in climate can prove to be severely damaging. For instance, in 2008 following a major flood, Yemen saw around 13,000 acres of land impacted by significant soil erosion, which caused some 500,000 palm trees to uproot—such a sudden change to the environmental landscape made a great impact on Yemen’s agricultural livelihood.¹⁴ Other types of climate change in the region capable of creating such a negative impact are extreme high temperatures, uncertainty in the forecast, and increased moisture stress.¹⁵

Salt intrusion, as indicated in the above paragraphs, is another major problem in the MENA region. Like soil erosion, salt intrusion is also influenced by climate change in correlation to sea levels; any rise in sea levels potentially reduces the quality of water, affects water availability in coastal areas, and can alter the quality of groundwater, namely via aquifers. Some predict that sea levels will rise anywhere from 19-58 centimeters by 2100, which could directly impact some twelve MENA countries. One such country is Egypt, and more specifically, the Nile River and her deltas.¹⁶

Lastly, pesticides used in farming and in post-disaster situations in order to prevent and control the spread of epidemics have had a damaging effect on the environment of the region. Pesticides have been connected to a range of human health hazards due to their widespread usage; they can be harmful to the environment in their toxicity to other organisms through accumulation in water and air. Additionally, the use of pesticides “can damage agricultural land by harming beneficial insect species, soil microorganisms, and worms which naturally limit pest populations and maintain soil health; weakening plant root systems and immune systems; and reducing concentrations of essential plant nutrients in the soil such as nitrogen and phosphorous.”¹⁷

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

When considering this topic, the Council should propose solutions that restore farmland while brainstorming measures to prevent further damage. The goal of the topic is to examine ways to heal damaged post-conflict lands once peace has been restored. Delegates should note the most damaged part of their member state’s ecosystem and its correlation to conflict. It is critical that the Council remember that this issue affects all Arab League member states, albeit in different ways; as such, offered solutions should address not only individual members’ needs, but also pan-Arab commonalities. It will also be helpful to investigate how trade of agricultural products has been disrupted in the course of a conflict.

II. Questions to Consider in Your Research

¹⁴ “The World Bank Annual Report 2009.” Web. 15 Aug. 2015.

http://siteresources.worldbank.org/EXTAR2009/Resources/6223977-1252950831873/AR09_MENA.pdf

¹⁵ “The Effects of Climate Change on Agricultural Sustainability in MENA Countries: Implications for Food Security.” Web. 20 Aug. 2015.

http://www.researchgate.net/publication/270574015_The_Effects_of_Climate_Change_on_Agricultural_Sustainability_in_MENA_Countries_Implications_for_Food_Security

¹⁶ Abumoghli, Iyad. “Water Security in the Arab World.” 2 Aug. 2015. Web. 15 Aug. 2015.

<http://www.ecomena.org/tag/desalination/>

¹⁷ Ibid.

- How much land of my country's land is used for agriculture?
- How much of my country's land has been affected by past and present conflicts?
- What are the prominent environmental issues facing agriculture in my country? How is my country combating them?
- Are there any other threats facing agriculture in my region that are being compounded by a past conflict?
- Are there any pesticides and fertilizers banned in my country? Is there any evidence of their further use or trade after such a ban?
- How is soil erosion affecting farmland in my country?
- What are the effects of salt intrusion in my country, if any? Are there any desalination methods my country uses to combat them?
- Does my country utilize any form of soil conservation?

III. Questions a Resolution Might Answer

- How can the region improve agricultural and environmental stability after a conflict?
- How can farmland in the region affected by salt intrusion, erosion, and fertilizer and pesticide overuse be revitalized after conflict?
- What are the current issues surrounding agriculture in the region? How can the League as a whole address them?

IV. Resources to Review

- [Middle East Climate](#)
- [Middle East Climate Continued](#)
- [International Center for Agricultural Research in the Dry Areas](#)

Topic 3: Developing strategies to promote economic opportunities in sectors with a low impact on the environment such as technology, education, and services

I. Introduction to Topic

A. General Background

The goal of this topic is not necessarily creating jobs that positively impact the environment, but rather adopting strategies that will promote jobs in fields such as technology, education, and public service—which have less effect on the environment. An economy is divided into four sectors: the primary, secondary, tertiary, and quaternary sector. Noting the differences in levels of sectors and their inherent careers is of great significance to this topic. The “technology” aspect of the topic deals with products and services for both individual consumers and businesses. Examples of work in technology include manufacturing, electronics, software creation, computer products, and others pertaining to information technology.¹⁸ “Education” includes both careers within primary, secondary, higher education, and technical schools, as well as corporations that process student loans and tuition.¹⁹ Finally, “service” is the part of the economy that is responsible for the production of intangible goods, such as food service, hospitality, finance, and health.²⁰

B. History of Topic in the Arab World

The technological sector has a massive potential for combating unemployment in the MENA region. Within the region, the “top ten technology companies have a collective workforce of 2,600 (and are growing at 100% per year), have a combined enterprise value of over \$2.5 billion, and generate over \$800 million in combined annualized revenues.”²¹ On the other hand, education in the region as a whole remains inaccessible to some; it is difficult for Middle Eastern families to be able to afford private European or American schools, so many children attend public systems, which are advanced in some member states and lacking in others. The World Bank took an interest in education in the MENA region in a report entitled “The Road Not Travelled”. The report cites the difficulty of attracting teachers to rural areas, which is indicated as having the highest shortage of teachers, and sheds light on the process of recruiting teachers. Vocational secondary education in MENA countries have faced high levels of unemployment,

¹⁸ “Technology Sector.” Investopedia.com. Investopedia, n.d. Web 15 Aug. 2015 http://www.investopedia.com/terms/t/technology_sector.asp#ixzz3jYXCM17w

¹⁹ “Education Sector.” InvestHub.com. Web. 15 Aug. 2015 <http://www.investhub.com/glossary/Education-Sector.htm>

²⁰ “Service Sector.” Investopedia.com. Investopedia, n.d. Web. 15 Aug. 2015 <http://www.investopedia.com/terms/s/service-sector.asp#ixzz3jYNIehtw>

²¹ Ibid.

along with a very small correlation between training administered to students and the students' respective employment.²²

Regarding the service sector, industries like tourism have suffered in the wake of the Arab Spring and other political conflicts, though finance and healthcare remain relatively stable in areas like the Arabian Gulf. For instance, the United Arab Emirates enjoys strong economic partnerships with Western countries like the United States, despite regional turmoil; the UAE continues to be the only the recipient of over 1,000 US corporation locations, such as Starbucks, ExxonMobil, and Bechtel, while partnering with healthcare experts such as Johns Hopkins and the Cleveland and Mayo Clinics in-country.²³ However, it is important to note that the needs and positions of all Arab League member states differ in history, context, and capability—the Council must address the topic as it pertains to both the League as a whole and to individual members.

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

Past problems within the educational sector included actual availability of educational services, however, this issue has transformed today into complications with affordability and discrepancies in public education across the region. The Council could consider solutions that not only create more jobs in the field but also that improve upon quality, access, and stability of education in the MENA region. Likewise, technology is an industry of great growth, so the Council must look into lessening technology's environmental burdens by analyzing and expanding this growth however possible. The service sector operates similarly to that of technology and can be tweaked to channel sustainability and growth back into the region's environment. As such, proposed solutions should be proactive as well as innovative.

II. Questions to Consider in Your Research

- In what ways do the above industries impact the man-made environment in my country?
- In what ways do these industries impact the natural environment in my country?
- Is it possible to utilize these industries to help the environment of the region? If so, how?
- How much of an impact do these sectors have on employment in my country?
- What are the numbers of employed and unemployed citizens in my country?
- Which of these sectors prompts the largest levels of employment in my country? Which prompts the least?

III. Questions a Resolution Might Answer

- Can these industries be used to improve the health of the environment in the region?
- Are there enough opportunities in these sectors to provide work for Arab citizens? How may additional opportunities be created?

²² Galal, Ahmed. "The Road Not Traveled: Education Reform in the Middle East and North Africa." MENA Development Report: The World Bank (n.d.): n. pag. 2008. Web.

<http://siteresources.worldbank.org/INTMENA/Resources/EDU_Flagship_Full_ENG.pdf>.

²³ "UAE-US Relations." The Embassy of the United Arab Emirates in Washington, DC, n.d. Web. 2015.

<<http://www.uae-embassy.org/uae-us-relations>>.

- How can the Arab League play a role in generating additional economic opportunities within these sectors?
- What strategies or incentives can the Arab League produce that would encourage work in these sectors?

IV. Resources to Review

- [Education in the Middle East and North Africa](#)
- [Initiative to Combat Youth Unemployment](#)
- [Creating Employment in MENA](#)
- [Labor Force Totals](#)
- [Unemployment Totals](#)

Topic 4: Discussing the protection of native endangered and threatened animals and plants within the region and the implementation of conservation measures

I. Introduction to Topic

A. General Background

This topic involves evaluating the status of threatened and endangered species of plants and animals native to the MENA region and considering implementing further conservation methods for their protection. In the context of this topic, the term “endangered” applies to a species on the verge of extinction, while “conservation” implies the protection of such species, whether animal, plant or natural resource. Many Arab League members are also signatories to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international agreement whose goal “is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.”²⁴ The MENA region offers a varying range of ecosystems and also hosts numerous endangered species and as such, this topic calls for discussion about the feasibility of Arab League measures to protect native endangered species of plants and animals while producing possible measures for their conservation.

B. History of Topic in the Arab World

Even though most of the animals and plants in trade within the region are not endangered, CITES exists to monitor the trade of specimens while promoting conservation. Today, CITES has approximately 181 members.²⁵ Even though most traded animals in the Arab World are not endangered, illegal animal trade is still prevalent in the surrounding region; for example, the illegal ivory trade, in which ivory is harvested from elephant tusks, still occurs in Africa, despite the global measures in place to counteract it.²⁶ On the other hand, there are multiple international initiatives in place to preserve and protect endangered species. One such initiative protecting affect populations in the Middle East is The Great Cats and Rare Canids Act of 2008—a bill that established a Multinational Species Conservation Fund that funds conservation programs concerning rare felid and canid species. Two of the animals protected by these funds are found in the Middle East, the gray wolf (*Canis lupus*) and the leopard (*Panthera pardus*).²⁷

²⁴ "What Is CITES?" Convention on International Trade in Endangered Species of Wild Fauna and Flora. UNEP, n.d. Web. 10 Aug. 2015. <https://cites.org/eng/disc/what.php>

²⁵ "List of Contracting Parties" Convention on International Trade in Endangered Species of Wild Fauna and Flora. UNEP, n.d. Web. 10 Aug. 2015. <https://cites.org/eng/disc/parties/chronolo.php>

²⁶ "Illegal Wildlife Trade." WorldWildlife.org. World Wildlife Fund, n.d. Web. 18 Aug. 2015. <http://www.worldwildlife.org/threats/illegal-wildlife-trade>

²⁷ "Great Cats and Rare Canids Act of 2008 Background Information and Species Profiles." World Wildlife Fund, n.d. Web. 10 Aug. 2015. http://wwf.worldwildlife.org/site/DocServer/Great_Cats_and_Rare_Canids_Act_of_2008.pdf?docID=561

Although a seemingly outdated issue, wild animals native to the region continue to be removed from their habitats in order to be kept as luxury pets. In many parts of the world, including the MENA region, owning a pet cheetah is seen as a status symbol. Cheetah populations have also been affected by the agricultural sector; regarded as the fastest land animal in the world, the cheetah population has been reduced by 90% in the last century as their native habitats shrunk due to the development of farmlands in Africa and Asia.²⁸ According to an article in The Guardian, approximately 25 million birds, of which some species are vulnerable or endangered, are illegally killed each year in the Mediterranean. Syria, Libya, and Egypt are reportedly some of the top offenders, with 5.7 million birds killed in Egypt per year.²⁹

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

Although the ownership of rare and wild animals is oftentimes viewed as a normal aspect of some cultures in the region, it is ultimately very dangerous to the animals in question. In order to fully discuss and discover solutions within this topic, the nature of the problem within the region and within individual member states must be researched and analyzed. The loss of even one endangered species is a horrible tragedy and it is the task of this Council to prevent and combat this. The Council may choose to evaluate existing protective measures for their effectiveness, and if found lacking, determine any measures that the Arab League may take to save native endangered plants and animals. The Council may also choose to partner with global organizations such as the World Wildlife Fund to execute their goals.

II. Questions to Consider in Your Research

- What are the native threatened and endangered species in my country? How are they protected?
- If threatened species in my country became extinct then what are the possible effects to the environment?
- In which organizations with existing measures on the protection of endangered species is my country a member?
- Is there any existing legislation in my country regarding the protection of endangered species of plants and animals?

III. Questions a Resolution Might Answer

- How important is the conservation of animal and plant species in the MENA region to the Arab League?
- Does the Arab League have the power to employ conservation measures to ensure the protection of endangered and threatened species within the region?

²⁸ Carrington, Damian. "Cheetah Smuggling Driving Wild Population to Extinction, Report Says." The Guardian. Guardian News and Media Limited, 15 July 2014. Web. 20 Aug. 2015.

<http://www.theguardian.com/environment/2014/jul/15/cheetah-smuggling-wild-luxury-pets-gulf>

²⁹ Neslen, Arthur. "25m Birds Illegally Killed in Mediterranean Each Year, Says Report." The Guardian. Guardian News and Media Limited, 21 Aug. 2015. Web. <<http://www.theguardian.com/environment/2015/aug/21/25m-birds-illegally-killed-in-mediterranean-each-year-says-report>>.

- How much would the health of the environment be restored or improved upon if conservation efforts were taken?

IV. Resources to Review

- [Endangered Mammals of the Middle East](#)
- [Endangered Plants of the Middle East](#)
- [Threatened Mammal Species](#)
- [Threatened Plant Species](#)
- [Protected Marine Areas](#)