



**2016 – 2017
Model Arab League**

**BACKGROUND GUIDE
Council of Environmental Affairs Ministers
ncusar.org/modelarableague**

**National
Council
on US-
Arab
Relations**



Original draft by Devin Rittenhouse, Chair of the *Council of Arab Environmental Affairs Ministers* at the 2017 National University Model Arab League, with contributions from Katarina Boehm, Chair of the Council of Arab Environmental Affairs Ministers at the 2016 Northeast Regional Model Arab League, and the dedicated staff and volunteers at the National Council on U.S.-Arab Relations

Honorable Delegates,

Welcome to the 2016-2017 Model Arab League Season. My name is Devin Rittenhouse, and I have the honor of serving as the Chairperson for the Council of Arab Environmental Affairs Ministers at the National University Model Arab League (NUMAL) and the Michigan Regional Model Arab League (MMAL). This fall I will be entering my last year of my undergrad at Grand Valley State University, studying Political Science with a Minor in Middle Eastern Studies. This year will be my third year participating in MAL Conferences. I have been fortunate to have attended NUMAL and MMAL in both 2015 and 2016. Last year, I was also able to attend the Rocky Mountain Regional Model Arab League (RMMAL) for the first time, where I met a whole new group of people and practiced my chairing skills. Participating in MAL over the past few years has not only strengthened my knowledge and use of parliamentary procedure, but it has also broadened my knowledge of the Arab World. My suggestion to all of you is to give this conference your all, because you truly get out of it what you put into it.

As a delegate in the MAL program, you are expected to uphold the highest standards of research and decorum possible. To ensure that you are ready for the conference you attend, you must prepare well in advance of the conference. When you are at a conference, you will be representing a country's policies and beliefs. To do this in the most unbiased way possible, you must know what your respective countries do and do not believe in. When you go into the conference, ensure that you leave your own ideas and beliefs at the door. Your goal should be to create the best solution for your country and not for yourself, or for any personal friends you may have in the room.

When you start your research, begin by learning as much about your country as possible. Being a college student as well, I understand that Google provides an easy platform on which to find information. I would suggest using this great tool, but would also suggest looking into more scholarly resources in order to gather information. It is important to have quick information about your country when creating solutions, but it is even more important to have the facts to back up those solutions when the time comes. You must be prepared to defend anything you say or write in Council.

Please remember that this is a learning opportunity, but that it is also an opportunity to make lifelong friends, and to broaden your own knowledge of the world. When you are at the Council, remember: you are the most knowledgeable person in the room on your country. Use this to your advantage. Be ready to challenge others' ideas, as this will lead to meaningful debate. I am looking forward to meeting some of you this 2016-2017 season. I hope you all enjoy MAL as much as I have.

Thank you,

Devin Rittenhouse

Topic I: Discussing the environmental repercussions of economic progress on the ecosystems of coastal regions and proposing methods to minimize damages, especially in regards to overfishing, agrochemical eutrophication, and oil spills

I. Introduction

A. General Background

When the Council is looking for a solution to this problem, they must first consider the damage that is currently being done, and that has been done in the recent past. We should begin with an overview of what the components of this topic are, and what type of impact they can have on the environment. Overfishing is defined by the World Wildlife Fund as “when more fish are caught than the population can replace through natural reproduction.”¹ In other words, if a fisherman or a group of fishermen catch more fish than is environmentally sustainable, they are overfishing. Overfishing can have many adverse effects on the economy and on the natural environment, specifically through the loss of biodiversity.

Eutrophication is a type of pollution caused by excessive amounts of nutrients, often nitrogen and phosphorus, in a body of water.² This type of pollution leads to the growth of harmful algal blooms (HABs), which feed on the excess nutrients, but have negative consequences, such as the production of toxins which subsequently pollute potable and recreational water supplies, and the formation of hypoxic (low oxygen) or anoxic (no oxygen) zones in the water.³ Hypoxic conditions cause aquatic life to become extremely stressed, while anoxic conditions can kill wildlife outright due to the complete lack of oxygen.⁴ “Agrochemical” is the general term applied to chemical substances and compounds used in agriculture, including pesticides, fertilizers, herbicides, etc. Agrochemical eutrophication, then, is simply the presence of excess nutrients in a body of water caused by agricultural chemicals, like fertilizers and pesticides, which have runoff into a body of water either directly from an agricultural field or through a drainage system.

An oil spill is defined by the Organization for Economic Cooperation and Development (OECD) as “oil, discharged accidentally or intentionally, that floats on the surface of water bodies as a discrete mass and is carried by the wind, currents, and tides.”⁵ Oil spills can cause a number of environmental and economic problems, including the widespread death of aquatic life and birds, excess air pollution from the burning of fuel (if applicable), and pollution of potable or recreational water, which can harm human health and the economy.

As green conscientiousness regains popularity around the world, many NGOs and other

¹ “Overfishing.” World Wildlife Fund. *World Wildlife Fund*. 2016. <http://www.worldwildlife.org/threats/overfishing>

² “Nutrient Pollution – Eutrophication.” NOAA Ocean Service Education. *Department of Commerce*. March 25, 2008. http://oceanservice.noaa.gov/education/kits/estuaries/media/supp_estuar09b_eutro.html

³ *Ibid.*

⁴ *Ibid.*

⁵ “Oil Spill.” OECD Glossary of Statistical Terms. *OECD*. November 16, 2001.

<https://stats.oecd.org/glossary/detail.asp?ID=1902>

groups are pushing for environmentally friendly practices. When one looks around the Middle East, they can see greener practices being brought to fruition. These practices include the creation of new technology through companies like Middle East Environmental Technologies, IRCA Middle East, and others. When looking at the UAE, we see many pushes forward for more environmentally friendly structures and construction projects like natural gas turrets to protect against the contamination of water. How can the Council continue to develop these efforts to protect the waters which provide for the livelihoods of many?⁶ It is important to look at leaders of the Arab World who have already instituted environmental programs, and who continue to look for ways to protect the environment.

B. History in the Arab World

In 2006, Lebanon faced a major environmental disaster when up to 15,000 tons of oil spilled into the Mediterranean Sea from the Jiyeh Power Station, which lies 19 miles south of Beirut, along the coast of Lebanon⁷. The missile attacks which caused the spill also caused two initial fires at the power station; the fires burned for several days before being contained, thereby releasing pollutants into the atmosphere.⁸ The spill affected not only the air, but also the wildlife: the oil both sunk to the seabed and clung to the shoreline, affecting scores of animals and killing “thousands of fish...every day.”⁹ This oil spill killed many organisms on the shore and in the water, and devastated the quality of the beach. With nations and industries growing throughout the Middle East, the question becomes, can the Middle East create a conscious fossil fuel industry in order to prevent environmental devastation?¹⁰ Oil spills, however, are not the only type of environmental degradation.

Because several members of the League have coastline or large bodies of water within them, vibrant fishing industries comprise part of many of their economies. Our countries, however, now face the complications caused by overfishing. When we look at coral reefs in the Red Sea, they are on the decline, in part due to the overfishing of specific species and top predators, such as algae-eaters and sharks, which help keep the reef in ecological balance.¹¹ With so many people fishing and not thinking of the repercussions, many species can seem to disappear from the ecosystem. The lack of regulation and lax enforcement of regulations furthers the existing problem of overfishing. Though there have been regulations promulgated on the fishing of sharks in the Red Sea, there still seems to be a number of sharks taken from the waters

⁶ "Part of World's Biggest Turret Sets Sail from Dubai - BBC News." BBC News. August 5, 2014. Accessed August 25, 2016. <http://www.bbc.com/news/technology-28801286>.

⁷ "Saving Lebanon's war-damaged beach." BBC News. *BBC MMIX*. December 5, 2006. http://news.bbc.co.uk/2/hi/middle_east/6189064.stm

⁸ "The Mediterranean: From crimes to conservation, A call for protection." *Greenpeace Mediterranean*. July 2007. <http://www.greenpeace.org/arabic/Global/lebanon/report/2009/6/lebanon-oil-spill.pdf>

⁹ Ibid.

¹⁰ Croitoru, Lelia, Maria Sarraf, and Sherif Arif. *The Cost of Environmental Degradation: Case Studies from the Middle East and North Africa*. Washington, D.C.: World Bank, 2010.

¹¹ Costandi, Moheb. "Overfishing Threatens Middle East Coral Reefs." *Nature Middle East*. October 15, 2015. Accessed August 25, 2016. <http://www.natureasia.com/en/nmiddleeast/article/10.1038/nmiddleeast.2015.192>.

every day and sold in the markets.¹²

Agrochemical eutrophication is an issue, like overfishing, that grows relative to the size of the industry. One or two farmers near a body of water will not cause irreparable damage, but a built, economic, and efficient agriculture industry along the coast, or the banks of a flowing river, may induce a complex type of pollution known as eutrophication. Any body of water that could potentially receive agricultural runoff is vulnerable to this type of eutrophication¹³, but there have been some notable examples from recent history in the Arab World. Oman, over a period of several months in 2008 and 2009, experienced an HAB which “kill[ed] thousands of tons of fish and limit[ed] traditional fishery operations, damag[ed] coral reefs, impact[ed] coastal tourism, and forc[ed] the closure of desalination plants in the region.”¹⁴ While the exact causes of this HAB remain unknown, increased nutrient input from domestic and industrial sources (including agricultural) is theorized to have been at play.¹⁵ This HAB demonstrates that eutrophication not only negatively impacts the aesthetic and quality of the natural environment; it has costly effects on the economy and the availability of potable water.

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

Drilling oil in the Arab world has been happening for over a century. Though oil has brought much prosperity to our nations, oil spills have created new problems and caused devastation in our nations and around the world. Our countries are capable of creating great solutions: as we have seen, new environmental technology has been created throughout the Middle East. For example, the technology created to soak up and treat contaminated surface water after the American Gulf Coast spill was created by an environmental disaster expert who worked in the Middle East for over twenty years on these types of disasters.¹⁶ In addition to this problem, the council must look at increasingly significant environmental problems such as overfishing and agrochemical eutrophication, and begin to combat them before they grow out of hand.

Individual states may already have regulation promulgated on fossil fuels, fisheries, and agrochemicals, but how can they be applied on a League-wide level? The Middle East Desalination Research Center (MEDRC) devotes some quantity of time and resources to the research and discussion of HABs and eutrophication¹⁷. In addition, UNESCO works as a global

¹² Ibid.

¹³ Bashour, Isam. “Chapter 10: Pesticides, Fertilizers and Food Safety.” *Arab Environment: Future Challenges*. N.d. <http://www.afedonline.org/afedreport/english/book10.pdf>

¹⁴ Richlen, Mindly L., Steve L Morton, Ebrahim A Jamali, Anbiah Rajan, and Donald M. Anderson. “The catastrophic 2008-2009 red tide in the Arabian gulf region, with observations on the identification and phylogeny of the fish-killing dinoflagellate *Cochlodinium polykrikoides*.” *Harmful Algae*. Vol 9. 2:2010. Pgs. 163-172. <http://www.sciencedirect.com/science/article/pii/S1568988309001048>

¹⁵ Ibid.

¹⁶ Warren, Mark. "The Secret, 700-Million-Gallon Oil Fix That Worked - and Might Save the Gulf." *Esquire*. May 13, 2010. Accessed August 25, 2016. <http://www.esquire.com/news-politics/news/a7516/gulf-oil-spill-supertankers-051310/>.

¹⁷ “HABs” MEDRC. *Middle East Desalination Research Center*. 2016. <http://www.medrc.org/index.php/research/initiatives-projects/habs>

organization to combat the negative impacts of HABs on water security and quality.¹⁸ These organizations may provide a starting point for your research on international efforts. The Council will need find a way to work together to create solutions to these problems, as they affect the prosperity of all of our countries.

II. Questions to Consider in Your Research

- What has the Arab league already done to try and solve these problems?
- What has my country done domestically to solve problems such as these?
- Are there any current bilateral partnerships between states, or joint efforts between organizations focused on addressing these problems?
- What kind of action can the Council of Environmental Affairs Ministers take in order to address these issues?
- What global initiatives have happened or are currently happening that the Arab League could take advantage of?

III. Questions a Resolution Might Answer

- What are the real-world, physical solutions to the issues presented in this topic?
- How can Arab states work together to collectively find a solution?
- How will any solutions be monitored in the future?
- How will solutions be fiscally and environmentally efficient?

IV. Additional Resources

- [Paris 2015 UN Climate Change Conference](#)
- [The Global oil and gas industry association for environmental and social issues](#)
- [Regional Center for Renewable Energy and Energy Efficiency](#)
- [MEDRC - About](#)
- [UNESCO – Addressing the impacts of harmful Algal Blooms \(HABs\) on water security](#)[UNEP – Overfishing and Other Threats to Aquatic Living Resources](#)

¹⁸ “Addressing the impacts of Harmful Algae Blooms on water security.” UNESCO.int. *UNESCO*. 2016. http://www.unesco.org/new/en/member-states/single-view/news/addressing_the_impacts_of_harmful_algal_blooms_on_water_security/#.V_ew9fkrIdV

Topic II: Creating League-wide initiatives to analyze, publicize, and minimize the impact of air, noise, and light pollution in urban areas of member states

I. Introduction

A. General Background

The Arab world has many thriving cities with large amounts of air, noise and light pollution. Though we do see many countries taking the initiative to decrease these types of pollution, there is still much to be done in the effort to combat them. Air, noise and light pollution may appear at first to be less harmful than other types of pollution, but when their concepts are broken down, it is easier to understand why they are important to address. Air pollution is often regarded as the most serious of the three, and is the easiest to understand – air pollution in the pollution of the air and atmosphere we breathe. Smog is one of the most visible types of air pollution, but invisible types exist, too – tiny particles from building materials, like asbestos, can make their way into the air and into human and animal lungs, causing chronic conditions and, occasionally, life-threatening diseases like cancer.¹⁹ Noise pollution is unwanted or disturbing sound at excessive levels which may be detrimental to human health. Noise pollution can lead to hearing impairment, social breakdown, and sleep disturbances (and further, a decrease in productivity).²⁰ Light pollution is the inappropriate or excessive use of artificial light. There are several negative consequences associated with this type of pollution, including excessive consumption of energy, adverse effects on the behavior and migratory patterns of wildlife, and detriment to human health, on a spectrum of discomfort to disability caused by excessive light.²¹

The Arab world has cities, such as Dubai and Cairo, with populations of approximately 2.3 million people²² and 19.1 million people,²³ respectively. How can these large urban centers avoid such pollution? The combination of air, noise and light pollution affects the entire Arab League, and it is important to look for solutions to address pollution throughout the League. It is important to know ahead of time what your nation and what the Arab League are doing to combat these problems.

B. History in the Arab World

¹⁹ “Air Pollution – Its Nature, Sources, and Effects.” National Park Service. *US Department of the Interior*. N.d. <https://www.nps.gov/shen/learn/nature/airpollution.htm>

²⁰ “Title IV – Noise Pollution.” Clean Air Act Overview, EPA. *EPA*. July 12, 2016. <https://www.epa.gov/clean-air-act-overview/title-iv-noise-pollution>

²¹ “Light Pollution.” International Dark-Sky Association. 2014. Accessed August 26, 2016. <http://darksky.org/light-pollution/>.

²² “Population.” Dubai Online. Accessed August 26, 2016. <http://www.dubai-online.com/essential/population/>.

²³ “Cairo Population 2016.” - World Population Review. Accessed August 26, 2016. <http://worldpopulationreview.com/world-cities/cairo-population/>.

The Middle East, since the early 1990s, has seen a mostly continuous rise in air pollution, much like the rest of the world. However, in 2010, air pollution began to dwindle as a result of the revolutions, known to most of the world as the Arab Spring, which erupted throughout many of our nations. Many countries, since the drop in pollution, have instituted more environmental policies to try to control the air pollution and keep it from skyrocketing to the levels it was before the Arab Spring.²⁴ It is important to take into account some of the outside existing factors affecting air pollution in conflict areas, but also to look at technology and other ways to transform the causes of air pollution. Most important is the link between air, noise and light pollution facing our nations.

Noise pollution happens in many industrialized cities where there are built-environment factors such as airports, boats, cars, factories, etc. The way to tackle noise pollution can be very tricky and must be done in a strategic manner. It is imperative that all states work together to find the correct solution to this problem. As stated in Section I, noise pollution can have serious effects on one's health. Exposure to loud, repetitive noise throughout the day can lead to a loss of hearing, and in some drastic cases, death.²⁵ Noise pollution is tied to air pollution because several of the causes of noise pollution, such as cars or industrial machines, also use energy and contribute to air pollution. It is important that the Council tackle both pollutions through sustainable solutions. Unlike air and noise pollution, light pollution is always visible, which could make it easier to solve. Light pollution is simply defined by the International Dark Sky Association as inappropriate or excessive use of artificial light.²⁶ The excessive use of artificial light not only constitutes light pollution; it can also contribute to noise and air pollution through the manufacturing processes of lighting equipment. Additionally, light pollution can exacerbate smog.²⁷ Understanding these types of pollutions may lead to the question of how can a large port city like Beirut reduce air, noise, and light pollution while also balancing the necessary and large volume of traffic it receives due to the port, as well as the vibrant day and nightlife it has created for residents and visitors? One of the best ways to reduce noise and air pollution is to increase the bussing and public transit systems in large cities to cut down on the amount of cars on the roads. We see a great example of this in the city of Dubai, where a state-of-the-art metro system continues to expand.²⁸ To reduce light pollution, it is important to look at the many resources and studies on how best to use light to avoid over-lighting areas. By utilizing these materials, the Council can create a better life for all the League's citizens. It is important to look at all three of these pollutions in connection with each other in order to create a comprehensive plan.

²⁴ Howard, Emma. "Middle East Conflict 'drastically Altered' Air Pollution Levels in Region – Study." *The Guardian*. 2015. Accessed August 26, 2016. <https://www.theguardian.com/environment/2015/aug/21/middle-east-conflict-decrease-air-pollution-levels-iraq-baghdad-egypt-syria-study>.

²⁵ Nicchi, Eugene Roberto. *Noise Pollution: Sources, Effects on Workplace Productivity and Health Implications*.

²⁶ "Light Pollution." International Dark-Sky Association. 2014. Accessed August 26, 2016. <http://darksky.org/light-pollution/>.

²⁷ Bradford, A. *Pollution Facts & Types of Pollution*. Accessed September 6, 2016.

²⁸ "Dubai Metro." Dubai Metro RSS. Accessed August 26, 2016. <http://dubaimetro.eu/>.

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

There are many levels of solutions to these pollutions, beginning with the individual and rising to large companies. Education about these pollutions and ways to lower them is one of the many solutions being used today. One of the most recent and very notable cases where we can see energy efficiency and education being put to great use is in a mosque in Dubai. This mosque uses all different types of energy-saving technologies, both for conservation and education. Its goal is to be environmentally friendly, but also to raise awareness of the costly effects of using energy. The mosque uses technology to combat all three types of the pollutants discussed in this topic in order to create a healthier society.²⁹ These technologies and relationships continue to grow throughout the Middle East as environmental sustainability education continues to become more commonplace. Overall, it is important that each country consider its own policies, and then come together as a Council to introduce comprehensive policies to combat the rise in air, noise and light pollution throughout the Arab League.

II. Questions to Consider in Your Research

- How environmentally friendly is my state?
- What have other states been doing and how can we improve on this from my state's perspective?
- What international initiatives has my state already signed onto?
- What is my state willing to do to solve these three types of pollution?

III. Questions a Resolution Might Answer

- How will this new initiative be regulated to ensure parties signing on are fulfilling duties to the League?
- Will this allow for many states to participate or will it isolate some states?
- Is it feasible to create a League-wide policy to address specifically the urban areas of individual member states?
- Will new initiatives be created to tackle air, noise, and light pollution, or will existing programs and initiatives be utilized?
- How will any new or increased activity on this topic be funded?
- What kind of timeline should be established to track the progress of the actions (“analyze, publicize, and minimize”) outlined in the topic?

IV. Additional Resources

- [Monitoring Noise Pollution](#)

²⁹ "Dubai's Environmentally-friendly Mosque - BBC News." BBC News. Accessed August 26, 2016. <http://www.bbc.com/news/world-middle-east-29358207>.

- [Air Quality and Atmospheric Pollution in the Arab region](#)
- [Preventing Light Pollution](#)
- [Traffic and Noise Pollution](#)
- [Carbon Brief](#)

Topic III: Promoting green building and sustainable business practices through the creation of an appropriate legal framework, economic incentives, and the dissemination of the necessary technologies and expertise

I. Introduction

A. General Background

The growing push for green practices around the world has translated into an increased effort to build a green Arab World. The Abu Dhabi Urban Planning Council (UPC) has seen the need for green buildings in the UAE, and has put forward the Abu Dhabi Master Plan, of which sustainability is one of the key pieces. In the Master Plan, the term “estidama,” the Arabic word for sustainability, encompasses their desire to develop the urban center sustainably.³⁰ The Estidama initiative includes a rating system for buildings, called the Pearl Building Rating System. With this new system, they hope to bring more and more buildings designed with sustainability in mind to Abu Dhabi in the future.³¹ The United Arab Emirates has already seen a rise in the amount of green buildings. One of the most notable of these is the new Hazza Bin Zayed stadium, which has received the Estidama Two Pearl rating.³² We are also seeing environmental certifications from other organizations being awarded to buildings in the Arab World. Most recently, the Empower Warehouse in Dubai achieved the Gold LEED Certification. The government of the UAE is responsible for the support of and strong encouragement for an increased focus on sustainability in the Emirates.³³

The perception of sustainable development as a larger capital investment than traditional building is not necessarily untrue, as the initial cost of green technology can be higher than conventional alternatives,³⁴ but the potential savings due to the decrease in maintenance and energy consumption surpass, in the long run, the cost of starting capital. However, the high price tag at the start, before the savings are evident, may be a deterrent from building green for businesses.

B. History in the Arab World

In 2005 the market for green building was at about \$26.2 billion worldwide. Today,

³⁰ “Estidama” Abu Dhabi Urban Planning Council. Accessed August 26, 2016.

<http://estidama.upc.gov.ae/estidama-and-pearl-rating-system.aspx?lang=en-US>

³¹ Ibid.

³² “UAE : Hazza Bin Zayed Stadium Receives the Estidama Two Pearl Rating.” UAE : Hazza Bin Zayed Stadium Receives The Estidama Two Pearl Rating. August 24, 2016. Accessed August 26, 2016.

<http://www.middleeastgreenbuildings.com/12668/uae-hazza-bin-zayed-stadium-receives-the-estidama-two-pearl-rating/>.

³³ “Dubai : Empower Receives LEED Gold Status for Its Warehouses.” Dubai : Empower Receives LEED Gold Status For Its Warehouses. Accessed August 26, 2016.

<http://www.middleeastgreenbuildings.com/12657/dubai-empower-receives-leed-gold-status-for-its-warehouses/>.

³⁴ Gelil, Ibrahim Abdel. “Regional Report on Efficient Lighting in the Middle East and North Africa.” En.lighten. November 2011. Accessed August 26, 2016.

that market has expanded to around \$606.8 billion.³⁵ This shows the massive increase in demand for the construction of green buildings in the world. But what does this look like in the Arab World? Today we can see over 1,300 LEED Certified buildings throughout the Middle East, and this number continues to grow each and every day.³⁶ To create and implement these technologies, each country must have willing and able citizens to do the work. Since green building is a higher level job than traditional construction labor and carpentry, there must be some type of way to bring in or train citizens for the caliber of work needed to complete these projects. The Arab World has a long history of bringing in workers from neighboring countries in order to complete the construction of buildings. As representatives from each Arab state, the Council needs to look into programs that would allow for specific training in order to aid in the process of creating more sustainable buildings throughout the League.

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

When looking at how to fix this problem, there are many different ways to approach this. Some states may decide to apply green standards to all new buildings, while others may try to adjust older infrastructure to be more environmentally friendly. Though green building campaigns are often undertaken by government entities, sustainability and green building initiatives can also be undertaken by individual businesses through the types and sources of materials they choose to purchase and invest in. Since 2010, Qatar has hosted the Middle East Green Conference and Exhibition, which brings together leading sustainability experts and businesspeople to promote and explore green practices, from building design to construction. Looking at this conference may provide ideas for creating League-wide sustainable practices.³⁷ In order to create a more sustainable Arab League, it is important to look at resources and reduce continuous building. While building more green facilities aids in sustainability, overbuilding may occur, hampering the usefulness of green building in the effort to achieve a sustainable Arab world. This Council should look at ways to share resources among states to reduce large amounts of overbuilding and overpopulating.

The Council could consider, as many states do, an incentive system that reduces the starting capital required for building green, or provides some other type of tax- or grant-based lure to persuade them towards sustainability. The League could also turn to other international and intergovernmental organizations' programs to gather ideas and inspiration

³⁵ "Green Buildings Market to 2015 – Incentives for Green Initiatives and Minimum Level of Standards to Boost Growth Opportunities." Green Buildings Market To 2015 – Incentives For Green Initiatives And Minimum Level Of Standards To Boost Growth Opportunities. July 21, 2015. Accessed August 26, 2016. <http://www.middleeastgreenbuildings.com/10220/green-buildings-market-to-2015-incentives-for-green-initiatives-and-minimum-level-of-standards-to-boost-growth-opportunities-3/>.

³⁶ Mo, Hong Yang. "Middle East Shift Towards Sustainability: A Boom for Green Building Suppliers - Greengopost.com." Greengopost.com. June 17, 2013. Accessed August 26, 2016. <http://greengopost.com/middle-east-shift-towards-sustainability-a-boom-for-green-building-suppliers/>.

³⁷ "Middle East Green Building Conference & Exhibition 2016." Megreenbuild. January 4, 2016. <http://megreenbuild.com>.

– the UNEP Sustainable Building and Construction Programme is one such of these.³⁸

II. Questions to Consider in Your Research

- How is my country ensuring more green construction and business practices?
- Will current practices happening in individual states work as a League-wide strategy?
- How can larger states help ensure smaller states do not get left behind in the new green era, to ensure all states are gaining something?

III. Questions a Resolution Might Answer

- If there is an incentive, will it be a monetary one? Where will this money come from?
- Will there be a set of guidelines put forward by the Arab League?
- How can the league ensure compliance while still maintaining sovereignty among member states?
- What international resources are states using?
- How will the League reward green buildings and businesses?
- What repercussions will be made if there is not an increase in green buildings and businesses in an individual country?

IV. Additional Resources

- [Middle East Green Building](#)
- [Middle East Green Building Conference & Exhibition](#)
- [UAE Estidama](#)
- [LEED Certification](#)

³⁸ “Sustainable Buildings and Construction Programme.” United Nations Environment Programme. *United Nations Environment Programme*. N.d.
<http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/Sustainablebuildingsandconstruction/tabid/106268/Default.aspx>

Topic IV. Exploring alternative and sustainable water resources in lieu of nonrenewable groundwater currently utilized in arid zones in order to meet agricultural and developmental demands

I. Introduction

A. General Background

When exploring water resources, we must find ways to harvest water for not only the coastal region, but also for the inland states in the League. It is important to remember that water is not only used for the purposes of drinking but also for agriculture and energy needs. When exploring ways to find more water, we must find a comprehensive way that works for all. One interesting new potential solution for this problem is a recent innovation regarding the collection of water from fog. We do not always think of fog as a source of water for suitable purposes, but if harvested correctly, it can be used for many different things. This technology is already being used in Morocco, where they have built the structures to collect fog and use it to provide running water to local towns.³⁹ It could be useful to consider in which countries this would work, and to what extent. If the fog collection did not work for collecting drinking water, it might work for collecting water for crops. Another solution many countries turn to is desalination, especially for those coastal states. Desalination, however, can be very costly and may still not be able to provide the needed amount of water for the continuously growing population. Water is a very important resource throughout the Arab World. The council needs to work together to find ways to protect water resources, and to continue to provide water to their citizens.

B. History in the Arab World

For decades, water has been in shortage in the Arab World. It constantly affects both our citizens and our relationships with our fellow nations throughout the Arab League. We see this especially in Palestine, where the populace has, intermittently, had no access to water due to the restrictions from Israel. So how, in a place such as Palestine, do we collect water, treat it, and sustain access to it? Wastewater treatment plants are being used around the world and throughout the Arab League as a short term way to retain water. The plants work to reduce the loss of water through continuous flow and treatment. These plants, however, do not solve the long term needs of our growing nations. They do not always create water suitable for drinking, but do help in providing water for agriculture.⁴⁰ The League should consider new ways to bring both short term

³⁹ D'Amours, Jillian. "Fog Harvesting Brings Water to Morocco's Rural Communities." Middle EastEye. Accessed August 26, 2016. <http://www.middleeasteye.net/news/fog-harvesting-brings-water-morocco-s-rural-communities-1765872668>.

⁴⁰ "Alternative Policy Study: Water Resource Management in West Asia." Alternative Policy Study: Water Resource Management in West Asia. Accessed August 26, 2016. <http://www.unep.org/geo/geo2000/aps-wasia/index.htm>.

and long term relief.

C. Finding a Solution: Past, Present, Future

In the fight for clean water, working collectively together will yield the best solutions. When states ignore their own water problems, their action -- or inaction – can in turn affect people down the line. As a Council, you should work on finding a League-wide solution to this problem. To find the best solution, you may want to consider what each country is already doing to meet its water needs. Desalinization is working in some states, as are wastewater treatment plants, but the capacities for these technologies are reaching a plateau.

II. Questions to Consider in Your Research

- What is currently being done to ensure my state has continuous access to water? How expensive is it? Can we make it more cost effective?
- What technology does my state currently have that might help other states?
- Is there a joint effort the Council can take to ensure all Arab states have fresh water?
- What is the most fiscally responsible way to go in finding a solution?

III. Questions a Resolution Might Answer

- Will there be an initiative to have some type of freshwater system in each Arab state?
- How much will this cost the League?
- Could the League make use of technology not currently being utilized by member states?
- How long will this new initiative take to finish and be fully functional?

IV. Additional Resources

- [UNEP – Vital Water Graphics](#)
- [Water in Crisis – Middle East](#)
- [Water Scarcity: Cooperation or Conflict in the Middle East and North Africa](#)
- [UNDP – Water Scarcity Challenges in the Middle East and North Africa](#)
- [The Thirst is Real: Water Scarcity and Solutions in the Middle East](#)
- [How Desalination Works](#)
- [EPA – How Wastewater Treatment Works...the Basics](#)