



2011 - 2012

Model Arab League

BACKGROUND GUIDE

Council of Environmental Affairs Ministers

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National
Council
on US-
Arab
Relations



Honorable Delegates,

It is my esteemed privilege to be the first to welcome you to the 2011-2012 Model Arab League Environmental Council. My name is James Joseph Manser (JJ for short) and I am delighted to be the chair of this council. I am currently a junior at Grand Valley State University perusing an undergraduate degree in International Relations, as well as a minor in Middle East Studies and Arabic. This will be my second year participating in the model and my first as the chair of this council.

Delegates, as members of the Council of Environmental Affairs Ministers you are tasked with the important duty of examining many multifaceted issues that are playing vital roles in policymaking decisions currently in the Arab World. Often as humans we tend to forget just how important the world around us is. We are surrounded by delicate ecosystems that work tirelessly to create a state of homeostasis. Unfortunately, due to the growing world population, especially in the Arab World, and the rise of urbanization, nature has paid a price. The human impact in the region has affected many water sources' riparian zones which in turn influence the benthic plants present. This includes algae as well as the macro-invertebrates that use this vegetation for shelter and nutrients. It is time for all member states to join together and rally around the cause of saving our natural environments, our home.

It is my absolute privilege to present to you the topics for the 2011-2012 Council of Environmental Affairs Ministers. I sincerely hope that you find as much joy researching and debating these topics as I have in presenting them to you. I also hope that you see these topics as an opportunity to learn something about the unique environmental issues the Arab world is facing. All of these issues are very topical. I hope that this gives you the freedom as the delegate to think "outside of the box" and come up with creative solutions to tackle these big problems. I also encourage you to constantly ask yourself, "what next?" All of these topics are formatted to be the next step in the policy process. For example, topic two begs the question, "what do we do now?" After acquiring clean water, what is the next step? It is my belief that these types of questions will not only be exciting, but that they will also allow delegates to bring to the discussion a multidisciplinary approach to addressing these topics.

Finally, the success of this council rests in your hands as delegates. Adequate preparation for the model only helps to ensure better discussion, and more practical resolutions. I sincerely hope that you are looking forward to the model. I hope that you find this experience a positive one in both your academic and non-academic pursuits.

All the best,

JJ Manser

Council of Environmental Affairs Ministers

Background Guide

Topic 1: Considering methods to increase conservation of wildlife, habitat, and biodiversity structures and systems across the Arab world with special reference to the protection of endangered species

I. Introduction to Topic

A. General Background

This topic focuses strongly on the interconnectivity within the ecosystems of the region. An ecosystem is defined as “a complete community of living organisms and the nonliving materials of their surroundings. Thus, its components include plants, animals, and microorganisms; soil, rocks, and minerals; as well as surrounding water sources and the local atmosphere”.¹ All organisms present in the ecosystem seek an environment suitable for their own unique living conditions; therefore, everything within an ecosystem operates to achieve a very delicate balance with the abiotic and biotic factors present.

The biodiversity of the MENA region is in danger as the human impact on the ecosystem creates unsuitable living conditions for the biotic factors present. Biodiversity is defined as “the term given to describe the variety of life on Earth. It reflects the number, variety and variability of living organisms and how these change from one location to another and over time”². Many factors such as urbanization impact biodiversity. As biodiversity weakens so does the ecosystem in which the organisms live. This weakens the ecosystem as a whole and can have dire consequences for not only the organisms present, but humans as well.

Finally, this issue goes beyond loss of wildlife. Ecosystems are holocoenotic. Holocoenotic is the condition “in which all factors act together (e.g. among the components of an ecosystem), with no barriers separating them.”³ A small change to one factor present within an ecosystem will impact the biotic factors present in the ecosystem. The absence of certain animals from an ecosystem can cause changes to the entire food web of an ecosystem. Conservation efforts are as rich and diverse as the wildlife and habitats in which they aim to save; therefore, a creative approach is a must.

B. History of Topic in the Arab World

Conservation of wildlife in the Arab world is an exciting topic because it is a newer movement. Many private sector organizations are pushing for increased protection of endangered species as well as conservation of natural habitats; however, the movement does not stop there. Many of the governments of the Arab world have rallied behind conservation efforts. For instance, the *Environmental Agency of Abu Dhabi* (EAD) was established in 1996 and has already created many initiatives to save native species⁴. Likewise, the Hashemite Kingdom of Jordan created *The*

¹ <http://www.encyclopedia.com/topic/Ecosystems.aspx>

² <http://www.greenfacts.org/en/global-biodiversity-outlook/l-2/1-biodiversity-loss.htm#0>

³ <http://www.encyclopedia.com/doc/1O14-holocoenotic.html>

⁴ <http://www.ead.ae/en/portal/environmental.consultants.aspx>

Royal Society for the Conservation of Nature in 1996⁵. Throughout the region the private sector is teaming up with government to tackle a problem that affects all people in the region.

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

As previously stated, the issue of conservation of wildlife is a relatively new topic. Many states within the Arab League have created their own initiatives for solving the problem. While these initiatives are a strong step in the right direction, what is lacking is a unified stance from all Arab states. Jordan and the United Arab Emirates have created “sectors” of conservation. These sectors divide the different habitats into manageable areas. This allows for policy to be enacted within the different habitats that are unique and beneficial to the needs of each.

II. Questions to Consider in your Research

- Has my country formulated a policy on this issue?
- What ecosystems/habitats are present in my country?
- Are any endangered species present in my country?
- Are any Non-Governmental Organizations (NGOs) present in my country? If so, what actions are they taking?
- Are there any similarities between the wildlife in my country and that of my neighbors?
- Would my country be in support of signing protection measures for the wildlife in the region?

III. Questions a Resolution Might Answer

- What actions might the Arab League take to address this topic?
- How might regional bodies be utilized?
- Should the committee create a treaty/protocol/protection measures on this issue?
- What role do the levels of society, government, and international actors have to play in this issue?

IV. Resources to Review

Science Daily

<http://www.sciencedaily.com/releases/2011/06/110624083519.htm>

This is an online publication for scientific research. This article will provide delegates with a scientific view of the issue as well as background information on key terms.

Green Facts

<http://www.greenfacts.org/en/global-biodiversity-outlook/1-2/1-biodiversity-loss.htm#0>

Looking to acquire a deeper understanding of key terms? This online data base answers commonly asked questions regarding scientific terms such as biodiversity, ecosystem, and habitat.

⁵ http://www.kinghussein.gov.jo/geo_env3.html

Environmental Sustainability in the Arab World

<http://www.unon.org/dgefftp/NCSAResources/General%20Reading%20Material/Environmental%20Sustainability%20in%20the%20Arab%20World%2028Oct03.pdf>

This is a wonderful report that addresses not only wildlife but many other environmental concerns in the Middle East. Equipped with charts and graphs this is an excellent source for comparative analysis.

Wildlife Middle East

<http://www.wmenews.com/>

The website of an NGO, this group releases a newsletter that examines up to date issues regarding wildlife in the region. This is an excellent source for in depth analysis of a specific issue.

Wild World

<http://iberianature.com/wildworld/guides/wildlife-of-the-middle-east/>

This website contains a plethora of information regarding specific issues in specific countries. It also includes links to relevant country information.

Breeding Center for Endangered Arabian Wildlife

<http://www.breedingcentresharjah.com/Home.html>

The name says it all. This is a wonderful resource that contains any information a delegate would need regarding endangered species in the Arab World.

Topic 2: Exploring ways to minimize the effects of regional water scarcity through improved storage facilities, systematic contingency planning, and more effective dissemination of knowledge and understanding of water's ultimate opportunity cost

I. Introduction to Topic

A. General Background

“Water is the oil of the 21st century”⁶. Water scarcity within the region is a constant concern. For example, the World Bank has stated that the increase in demand for qat, a shrub whose leaves and buds produce a habituating stimulant when chewed or used as a tea, has had a serious impact on the water supply in Yemen because of the high volume of water needed for its cultivation.⁷ The creation of the *Arab Water Council* (2004) has ushered in a new era of awareness about the importance of water in the region.

Unfortunately, as the above example articulates, water is scarce, and as such regional and international policy makers must work together in an attempt to address the issue. Herein lies the crux of the topic. This topic will force delegates to think beyond just conservation efforts. It is the “next step” in the process of securing clean water for the Arab World. This topic focuses on the “*what next?*” question associated with water in the region. The main focus of the topic is on three unique areas.

The first area addressed in the topic is water storage. This can range from aquifers within the ground to state of the art water treatment plants. Storing clean water is a broad issue and leaves room for many unique solutions. The region has already invested in damn storage and inter-basin transfers, as well as rainwater harvesting.⁸

The second area of importance is systematic contingency planning. Systematic contingency planning is defined as:

A systematic approach to identifying what can go wrong in a situation. Rather than hoping that everything will turn out OK or that "fate will be on your side", a planner should try to identify contingency events and be prepared with plans, strategies and approaches for avoiding, coping or even exploiting them⁹.

Once the issue of storage is addressed, the next step for the delegate should be to address the issue of contingency planning. Or, once the water is acquired, what safety nets are in place in the event of drought?

Lastly, the topic concludes with water's ultimate opportunity cost. Water is scarce, and therefore all forms of resources (land, labor, capital) are required to address the issue. What are the effects of the lack of or accessibility of water on society, the environment, and the economy?

⁶ Andrew Liveris, CEO Dow Chemical, cited in “Running Dry,” *The Economist*, 21 Aug 08

⁷ <http://siteresources.worldbank.org/INTYEMEN/Overview/20150264/YE-Qat.pdf>

⁸ http://www.arabwatercouncil.org/administrator/Modules/CMS/Arab-MENA_Regional_Document_WWF5.pdf

⁹ <http://planningskills.com/askdan/6.php>

B. History of the Topic in the Arab World

For thousands of years the people of the Arab world have worked to acquire and disseminate water throughout the region. Water is needed for daily life in the region, whether it is irrigation for farmers, or just drinking water for livestock and all of society. In 2004, the Arab Water Council was established to focus on the ever growing issue of water in the region. This council is comprised of scientists, politicians, and public figures who are interested in the issue¹⁰. The Arab Water Council is a key player in the struggle for water availability in the region.

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

In the past, the issue of water was a large undertaking by each state in the region, but currently, thanks to the establishment of the Arab Water Council, progress towards addressing the issue has increased. At present many states are continuing works to obtaining fresh water as well as creating infrastructure initiatives to store it. The Arab Water Council is also launching the “Public Engagement in Water Management Project” that seeks to collect the information needed for the dissemination of water resources as well as “Strengthen Civil Society Involvement in Assessing Their Country's Water Service Performance”⁷. This initiative seeks to build a system by which states can work together to solve problems both internationally and domestically.

II. Questions to Consider in your Research

- What actions has my country taken to address this topic?
- How has my country been affected by this issue?
- What water resources are currently being utilized by my country (lakes, rivers, aquifers)?
- Are the aforementioned bodies of water shared by neighboring states?
- What resources (land, labor, and capitol) is my country willing to sacrifice towards water storage?

III. Questions a Resolution Might Answer

- What action(s) might the Arab League take to address this topic?
- How might regional bodies be utilized?
- What role do states have in allocating this scarce resource throughout the region?
- Should each state be responsible for its own storage facility, or are region wide facilities more reasonable?

IV. Resources to Review

Arab Water Council

<http://www.arabwatercouncil.org/index.php>

¹⁰ http://www.arabwatercouncil.org/index.php?CMS_P=193

http://www.arabwatercouncil.org/administrator/Modules/CMS/Arab-MENA_Regional_Document_WWF5.pdf

This is the homepage for the Arab Water Council. It is a great resource for up to date information on actions being taken in the region. The second link is a report from the Arab Water Council.

State of the Water Report

http://www.arabwatercouncil.org/administrator/Modules/CMS/Technical%20Report%2010_State%20of%20the%20water%20report%20in%20the%20Arab%20Region.pdf

This is a report by the Arab Water Council. It contains relevant information regarding water in the region. This is a wonderful place to compile data as well as compare actions of your state to others in the region.

Fighting Water Scarcity in Arab Countries

http://www.ifad.org/operations/projects/regions/pn/factsheets/WWF_factsheet.pdf

This is a wonderful report that deals mainly with water used for irrigation in the region. It is a must read for understanding the problem of water storage and the dissemination of water throughout the region.

Water Resources (Chapter 5)

<http://www.afedonline.org/afedreport/Full%20English%20Report.pdf>

This is a report by the Arab Forum for Environment and Development. The report is a great resource for compiling data. This resource also helps to put the topic into perspective as it gives an overview of how the scarcity of water affects all those who live in the region.

What Does the Arab World do When It's Water Runs Out?

<http://www.guardian.co.uk/environment/2011/feb/20/arab-nations-water-running-out>

This is an article from *The Guardian*. I believe that it will help round out delegates understanding of the topic. It also provides some examples as to what issues a resolution might address.

Topic 3: Addressing the environmental impacts of waste, including but not limited to biological, industrial, medical, and e-waste, and formulating a comprehensive strategy with specific consideration given to improved collection, transportation and storage efforts

I. Introduction to Topic

A. General Background

Waste is a natural implication of the human experience. With that it is only logical that a growing population will produce more waste. The Arab world is currently experiencing not only a growing population but a growing push towards urbanization. These urban environments produce an excessive amount of waste that must be dealt with.

Waste is present in the Arab world in many forms. Whether it is waste from industry, hospitals, natural human waste, or an emerging form of waste “e-waste”, it must be disposed of appropriately. Each form of waste requires a solution as diverse as the waste itself. For instance, e-waste is defined as “electronic products nearing the end of their useful life. Computers, televisions, VCRs, stereos, copiers, and fax machines are common electronic products.”¹¹ Such a multitude of materials requires a more diverse solution than that of medical waste.

Medical waste, on the other hand, is defined as “any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals.”¹² Medical waste must be disposed of carefully. Some forms of medical waste include syringes which can lead to the spread of disease if a person or animal comes in contact with it.

Industrial waste is defined as “worthless, damaged, defective, superfluous or effluent material from industrial operations.”¹³ Industrial waste can come in many forms; solids, liquids, and gases. All of these forms of waste have different effects on the biotic and abiotic organisms present in the environment in which they are introduced. For instance, carbon dioxide and other greenhouse gases insulate Earth’s atmosphere and cause an increase in global temperatures.¹⁴

A second tier to this topic is the consideration of collection, transportation, and storage. This issue must be examined carefully as many states have unique methods of waste management. For instance, “in Tunisia, the first biogas plant for the market waste has been built. The plant is now in testing phase. The company Fliegel from Germany has built the plant and is responsible for the operation for one year”.¹⁵ Also, in Lebanon the first mechanical-biological waste treatment plant is under construction.¹⁶

¹¹ <http://www.calrecycle.ca.gov/electronics/WhatIsEwaste/>

¹² <http://www.epa.gov/osw/nonhaz/industrial/medical/>

¹³ http://www.biology-online.org/dictionary/Industrial_waste

¹⁴ <http://www.epa.gov/climatechange/emissions/index.html>

¹⁵ http://www.iswa.org/uploads/tx_iswaknowledgebase/Nassour.pdf

¹⁶ http://www.iswa.org/uploads/tx_iswaknowledgebase/Nassour.pdf

B. History of the Topic in the Arab World

This topic is both an old and new problem. As stated before, humans produce waste as a natural part of life, but the industrial age, as well as the technological age, has brought forward new and unique challenges to waste management. Biological, medical, and industrial waste can spread disease as well as decrease the standard of living of those in the region by polluting the air and water. The different forms of waste pose serious environmental threats as they pollute ecosystems and affect the health of all biotic factors living there. Many states have enacted programs to deal with waste but also need to update current policies in order to keep up with an ever advancing world.

There is a disparity between states on the issue of waste management. While many countries have agreed to adhere to the UN's Strategic Approach to International Chemical Management (SAICM), many countries lack the financing to fully implement the policies that will dispose of chemical properties efficiently.¹⁷ Unfortunately, not all of the growing waste concerns are addressed effectively.

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

The League of Arab States has been proactive in the past when it comes to dealing with waste management. In 1997, the Gulf Cooperation Council (GCC) formed a uniform waste management system to deal with its many forms of waste.¹⁸ As for the present and the future, many states are negotiating ways in which the League of Arab States can work together to better waste management in the region. Egypt has allowed ships from other states to carry hazardous materials through the Suez Canal in order to aid others in their pursuit to dispose of hazardous materials.¹⁰ Compromises and initiatives such as these are occurring throughout the region.

II. Questions to Consider in your Research

- What actions is my country taking to address this issue?
- How has my country been affected by this issue?
- Has my country signed relevant treaties such as the SAICM?
- What types of waste does my country produce?

III. Questions a Resolution Might Answer

- What actions might the Arab League take in order to address this issue?
- Should a new treaty/protocol etc. be drafted, or a previous document revised or updated?
- What role might non-state actors play in developing a solution to the issue?

¹⁷ http://www.un.org/esa/dsd/csd/csd_pdfs/csd-18/rims/ESCWA_RIM_Outcome_english.pdf

¹⁸ <http://www.afedonline.org/afedreport/english/book8.pdf>

IV. Resources to Review

Status and Perspectives of Waste Management in the Arab Countries

http://www.iswa.org/uploads/tx_iswaknowledgebase/Nassour.pdf

This is a great report that gives some background to the issue while addressing some of the main factors that harbor the progress of the topic.

Waste Management (Chapter 8)

<http://www.afedonline.org/afedreport/english/book8.pdf>

This section is a great source of data as well as background information of many of the states initiatives to address the topic.

UN Sustainability Report

http://www.un.org/esa/dsd/csd/csd_pdfs/csd-18/rims/ESCWA_RIM_Outcome_english.pdf

This is a United Nations report that will allow for an increased understanding of international actions within the region.

Waste Management I

http://www.ems.org.eg/esic_home/data/giued_part1/Waste_Management.pdf

This will give a great background to medical waste and its effect on the region.

Topic 4: Combating the environmental impacts of eutrophication, as well as its relation to an increase in fertilizers, river run-off and sewage discharges in marine environments across the Arab world

I. Introduction to Topic

A. General Background

Eutrophication is defined as “The increase in additions of nutrients [especially nitrogen and phosphorus] to freshwater or marine systems, which leads to increases in plant growth and often to undesirable changes in ecosystem structure and function”¹⁹. Eutrophication is a growing concern not only in the Arab region but the world at large. The natural resources of the Arab world are at risk in large part to the rising nitrogen and phosphorous levels present in water. The increase in chemicals is due in large part to fertilizers and additional run-off from poorly aggregated streams and rivers.

These nutrients can cause severe damage to the ecosystems in which they are introduced. Harmful Algae Blooms (HABs):

are one of the visible symptoms of eutrophication in many parts of the world. Such blooms may have deleterious effects including the development of high biomass and scums, shading of submerged aquatic plants, direct toxicity to fish and shellfish, oxygen depletion, alteration of food webs, and suffocation of fish from mucus production and gill interference.²⁰

Eutrophication has grown more prevalent as the presence and use of fertilizers with nitrogen bases have increased. The nitrogen within the fertilizer causes the alga that resides within the photic zone of any body of water to grow at an alarming rate.

B. History of the Topic in the Arab World

Eutrophication is a growing concern among many of the Gulf States. Actors such as Saudi Arabia, Yemen, Oman, Kuwait, Qatar, and Bahrain are currently leading the charge against the spread of HABs, but that is not to say that all other states are not to worry. All states with lakes, rivers, and other natural bodies of water have a role to play in the policy making process. Due to an increase in urbanization, rivers, lakes, and seas are being settled. The increase in population has caused once desolate shores to be filled with houses and businesses that increase the amount of run-off into the water.

As previously mentioned, this topic is a global issue. As such many scientist and marine biologist have flocked to the region in order to study the ever changing ecosystems in the Arab world; therefore, governments must implement policies that are strong enough to adapt to the ever changing research of the scientific community.

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

Eutrophication is a rather new issue that is constantly being studied and monitored by governments and scientists around the globe. One such organization is the **Global Ecology and**

¹⁹ <http://www.greenfacts.org/glossary/def/eutrophication.htm>

²⁰ http://omancoast.org/index2.php?option=com_docman&task=doc_view&gid=14&Itemid=26

Oceanography of Harmful Algae Bloom (GEOHAB). GEOHAB seeks to bring together global leaders in HAB in order to create a better understanding of the issue as well as draft policy to help decrease eutrophication.¹²

One way in which policy makers are seeking to bring about change is by creating marine protected areas (MPAs). MPAs are protected bodies of water that have strict legislation against over fishing, recreation, tourism, and the use of nitrogen enriched fertilizers.²¹ Sadly, currently there are few MPAs as well as a lack of other legislation relating to this topic.

II. Questions to Consider in your Research

- How has my country been affected by this issue?
- Does my country have any MPAs? If not, what are possible bodies of water that could benefit from such legislation?
- Would my country be in support of extending the power of the Arab Water Council in order to address this issue?
- Does my country have any legislation addressing run-off, sewage discharges, or nitrogen enriched fertilizers?

III. Questions a Resolution Might Answer

- What actions might the Arab League take to address this topic?
- What compromises can be made between neighboring states in order to address the problem of eutrophication in shared bodies of water?
- What role might non-state actors, such as the scientific community, play in addressing this issue?
- How might regional bodies be utilized?

IV. Resources to Review

Arab Environment: Future Challenges

<http://www.afedonline.org/afedreport/Full%20English%20Report.pdf>

This is an excellent report that will help delegates formulate what types of actions are needed in a successful resolution.

Approaches to Solution of Eutrophication

<http://www.unep.or.jp/ietc/Publications/techpublications/TechPub-11/2-4.asp>

This report by the United Nations Environment Program will help to put into perspective the wide ranging solutions being implemented by other states.

Eutrophication and Harmful Algae Blooms

http://omancoast.org/index2.php?option=com_docman&task=doc_view&gid=14&Itemid=26

This report will not only provide delegates with helpful background information on the topic, but will also give an in depth scientific analysis of eutrophication and the effects on local ecosystems.

²¹ <http://www.afedonline.org/afedreport/Full%20English%20Report.pdf>