2023 - 2024
Model Arab League
BACKGROUND GUIDE

Council of Arab Social Affairs Ministers

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National Council on US-Arab Relations

Original draft by Nasyve Beech II, Chair of the Council of Arab Social Affairs Ministers at the 2024 National University Model Arab League, with contributions from the dedicated staff and volunteers at the National Council on U.S.-Arab Relations

Honorable Delegates

Welcome to 2023-24’ Summit of Arab Social affairs. My Name is Nasyve Beech and I'm honored to be serving as your chair this year and excited to facilitate discussion for this year's tournaments. I am a third year majoring in Politics Philosophy and Economics concentrating in International Political Economy while simultaneously pursuing a masters in security and resilience. This will be my third year participating in Model Arab League so I'm very excited to see how debate evolves and develops.

I wrote this background guide with the hopes of facilitating your research and expediting debate. The topics I choose highlights the unique position the Middle East North African region finds itself at the current moment following the pandemic. You don't need to be an expert to be a contributing member of this body, all that is required is that we research thoroughly and come prepared for respectful debate

Before we all convene for debate I would like to set some expectations. Firstly, I value creativity in problem solving. There are more than one ways to prevent turmoil or address transnational issues and I expect your paper to reflect that. For a successful paper, I expect holistic, realistic, and well-rounded solutions to address these multifaceted issues. Secondly, I do not tolerate any form of prewriting or collusion. This is a learning simulation meant to foster friendly competition. Any preparation of pre-written papers acts as a hindrance to our learning environment and will be met with swift action. Lastly and most importantly, with any model summit a certain amount of toxic and bigoted behavior is always exhibited. Before entering into discussion I would like to make clear any bigoted behavior seen including Islamophobia, racism, sexism, ableism, antisemitism, or any other form of bigotry in this committee will not be tolerated during and outside of this session. I expect everyone in this simulation to act as if their words have genuine power because they do. This forum will be a safe space for any and all wishing to engage. I look forward to kicking off the 2023-2024 summits with you all.

Yours Truly
Nasyve Collin Beech II

Topic I: Assessing the role of artificial intelligence and technology in enhancing equity and accessibility in healthcare systems.

I. Introduction to the topic

A. General Background

Following the events of the recent Covid-19 Pandemic, hospitals across the world are addressing the inequities within their healthcare systems. As we reach a new era of technological advancements, Artificial Intelligence continues to make strides as an upcoming means of providing accessible and equitable healthcare. According to global consulting company McKinsey and Company, "AI has the potential to contribute as much as $150 billion... That's equivalent to 9 percent or more of GCC countries' combined GDP."[1] As investments, research, and development in Artificial Intelligence technology continue to grow, the Middle East and North African region has the power to assess the role of its future in the Healthcare space.

AI and the Internet of Medical Things (IMoT) have seen widespread applications in wearable devices that collect data and assist users in maintaining their health. The IMoT is a collection of medical equipment and applications that link to healthcare information technology systems.[2] Through the coordination of IMoTs, AI, and wearable data collectors, doctors are able to understand people's day-to-day health care patterns and better support their patients. The data gathered is further utilized to help detect and diagnose diseases early.[3] In fact, some AI detectors are already more advanced than our current detection methods. The American Cancer Society cites that a significant number of mammograms generate inaccurate outcomes, resulting in nearly half of healthy women receiving incorrect cancer diagnoses. "The use of AI is enabling [the] review and translation of mammograms 30 times faster with 99% accuracy, reducing the need for unnecessary biopsies."[4] Recently, UK-based Kheiron Medical has partnered with UAE's Atlas Medical to launch MIA which stands for the mammography intelligent assessment. MIA is the inaugural AI autonomous reading solution accessible for implementation in the breast screening community in the UAE, drawing from its successful track record in the UK and Europe, "MIA represents a major breakthrough in helping radiologists dramatically improve breast cancer detection and patient outcomes." says Kheiron's Chief Commercial Officer, Alex Hamlow.[5]

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[1] Chandran, Vinay, et al. "The State of AI in GCC Countries-and How to Overcome Adoption Challenges." *McKinsey & Company*, 30 May 2023, www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-state-of-ai-in-gcc-countries-and-how-to-overcome-adoption-challenges.

[2] "Internet of Medical Things Revolutionizing Healthcare." The Alliance of Advanced BioMedical Engineering. Accessed September 1, 2023. https://aabme.asme.org/posts/internet-of-medical-things-revolutionizing-healthcare.

[3] PricewaterhouseCoopers. No longer science fiction, AI and Robotics Are Transforming Healthcare. PwC n.d.https://www.pwc.com/gx/en/industries/healthcare/publications/ai-robotics-new-health/transforming-healthcare.html (accessed August 25, 2023).

[4] IBID

[5] "British AI Solution for Breast Cancer Screening Arrives in the UAE." MobiHealthNews, June 28, 2021. https://www.mobihealthnews.com/news/emea/british-ai-solution-breast-cancer-screening-arrives-uae.

The data collective used for Healthcare AI can analyze the trends and patterns to identify patients' risks of condition development. Clinicians use said identifications to formulate comprehensive coordinated care plans, including effective drug prescription[6]. AI has already shown potential in facilitating drug development despite the lengthy process in which drugs go from research to market. The California Biomedical Research Association claims that it takes an average of 12 years for a drug to travel from the research lab to the patient. Only five in 5,000 of the drugs that begin preclinical testing ever make it to human testing and just one of these five is ever approved for human usage. Furthermore, on average, it will cost a company US $359 million to develop a new drug from the research lab to the patient. Drug research and discovery is one of the more recent applications for AI in healthcare. By directing the latest advances in AI to streamline the drug discovery and drug repurposing processes there is the potential to significantly cut both the time to market for new drugs and their costs.[7]

Although The Middle East has seen some exceptional advancements in the realm of AI Infrastructure, the developments have not come with a fair share of debate about their ethical ramifications on society. There is widespread concern about the potential bias that AI Infrastructure might inherit from their developers or the data it uses. According to research conducted by the University of Southern California, cultural bias was found in 38% of facts used to develop AI.[8] The lack of diversity in the development process, cultural prejudices, and misconceptions regarding the health of underrepresented minority groups potentially exclude minority participation in AI-fueled healthcare.

Training AI in healthcare requires large and diversified healthcare data sets which would include insurance history, pharmacy records, and consumer data. Although there is fragmentation in data collection, Health AI suffers from collecting accurate streams of data. As patients change their doctors, change their insurance carriers, or update their health info, their data is dispersed throughout multiple systems and formats which increases the likelihood of mistakes and decreases the comprehensiveness of datasets.[9] AI-powered technologies suffer from issues with data security and privacy concerns. Hackers frequently target health records during data breaches due to their valuable yet susceptible nature. As a result, keeping medical records secret is critical,

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[6] PricewaterhouseCoopers. No longer science fiction, AI and Robotics Are Transforming Healthcare. PwC n.d.https://www.pwc.com/gx/en/industries/healthcare/publications/ai-robotics-new-health/transforming-healthcare.html (accessed August 25, 2023).

[7] IBID

[8] "That's Just Common Sense". USC researchers find bias in up to 38.6% of "facts" used by Ai - USC viterbi: School of Engineering. USC Viterbi | School of Engineering 2022. https://viterbischool.usc.edu/news/2022/05/thats-just-common-sense-usc-researchers-find-bias-in-up-to-38-6-of-facts-used-by-ai/ (accessed August 25, 2023).

[9] Engler, Alex, Cameron F. Kerry, Mark Muro Timothy J. Bartik, Tom Wheeler, and Jack Malamud Nicol Turner Lee. "Risks and Remedies for Artificial Intelligence in Health Care." Brookings, March 9, 2022. https://www.brookings.edu/articles/risks-and-remedies-for-artificial-intelligence-in-health-care/.

but as AI advances, users may misinterpret artificial systems allowing for covert data to be potentially compromised presenting severe privacy problems.

B. History in the Arab World

The Middle East-North African region is conceptualized into three categories where health is concerned. Low-income nations (like Yemen and Djibouti) with the worst infant mortality rates and maternal mortality ratios in the region face the most barriers to healthcare. Traditionally for lower income nations the government often does not subsidize health care. Even in cases where such subsidies are extended, citizens are frequently burdened with substantial co-payment requirements.[10] This financial obligation can disproportionately impact individuals with lower earnings, exacerbating the challenges faced by these segments of the population. Middle-income nations face grave discrepancies and inequities in both health outcomes and coverage. These disparities often arise from the complexities inherent in providing quality healthcare within these nations. Frequently, subsidized healthcare systems in middle-income countries suffer from structural inadequacies or insufficient funding, which compels affluent individuals to seek private healthcare options. Consequently, this trend fosters a concentration of valuable healthcare resources and expertise within the private sector. High-income nations have achieved the highest access to healthcare in the MENA region.

In the past decades, the health systems of the MENA region have switched from primary healthcare services towards more curative methods of health in hopes of achieving the WHO-supported goal of "Health for All" by 2000. The COVID-19 pandemic has accelerated the adoption of digital health technologies, showcasing the potential of innovation in crisis response. Technological improvements are critical for improving healthcare delivery, access, and patient outcomes. Realizing this potential, however, necessitates ongoing investment in innovation and the adoption of new technologies and solutions. Limited intersectoral cooperation, poor community involvement, weak policy analysis/coordination, inadequate health information systems, and poor organization and management of health services have all been identified as potential barriers to equitable healthcare access particularly within lower-income nations.

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

King Faisal Specialist Hospital & Research Center (KFSH&RC), a leading Saudi healthcare provider, has been at the forefront of deploying AI-driven solutions to optimize resource management, minimize patient wait times, and improve operating room efficiency through a unified capacity command center. The business uses AI-powered predictive analytics

[10] Mate, Kedar, Caitlin Bryan, Nigel Deen, and Jesse McCall. "Review of Health Systems of the Middle East and North Africa Region." Edited by Stella R. Quah. International Encyclopedia of Public Health, 2017. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7149321/.

to identify patients who are at risk of problems, allowing for early intervention and the rapid mobilization of care solutions. KFSH&RC has begun "leveraging virtual reality technology to aid children with autism in developing essential life skills" and "exploring Metaverse to remove healthcare walls and borders and enhance staff training" which has the potential to change healthcare education and deliver a more immersive learning experience for our personnel.[11] Dr. Mohammad Alhamid, Director of the Centre of Healthcare Intelligence at King Faisal Specialist Hospital & Research Center (KFSH&RC) says "By leveraging data-driven insights, the Center of Healthcare Intelligence is reducing the cost of care by optimizing clinical and operational processes. By analyzing vast amounts of data from various sources, the center helps identify areas where processes can be streamlined and resources can be utilized more efficiently."[12]

In partnership with Cerner, Dubai is launching the first AI research center in the region. Using Cerner's Health records data and new-age analytical tools the center hopes to advance research for oncology, infectious diseases, and bariatric medicine. The center hopes to further the UAE's vision of empowering healthcare through AI integration. The center's holistic approach strives to disclose unique insights, clarify subtle patterns, and accelerate innovative discoveries within these key medical fields.[13] The AI research center aspires to promote scientific understanding as well as healthcare standards on a worldwide scale by establishing a collaborative ecosystem that supports multidisciplinary involvement. The foundation of the center is a significant step toward the UAE's goal of becoming a leader in AI-driven healthcare innovation while also making a significant contribution to the worldwide medical research community.

For this debate, it is important we set up guidelines for the development and implementation of healthcare AI infrastructure while focusing and emphasizing key safeguards in order to ensure a sustainable, equitable, and effective implementation. The guidelines should outline the ethical standards that will govern the use of artificial intelligence in healthcare. Patient privacy, data security, permission, and the proper management of sensitive medical information should all be included[14]. Healthcare AI should prioritize patient well-being, improving diagnostics and enhancing patient care. Continuous monitoring of AI systems is crucial to detect and correct biases, faults, and flaws. Guidelines will address resource allocation,

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[11] How AI is Transforming Healthcare in Saudi Arabia. Fast Company Middle East | The Future of Tech, Business and Innovation 2023.https://fastcompanyme.com/technology/how-ai-is-transforming-healthcare-in-saudi-arabia/ (accessed August 27, 2023).

[12] IBID

[13] Cerner, Oracle. "American Hospital Dubai Announces Artificial Intelligence Research Center in Collaboration with Global Health Care Technology Leader Cerner." Home. Accessed September 2, 2023. https://www.cerner.com/ae/en/blog/american-hospital-dubai-announces-artificial-intelligence-research-center-with-cerner.

[14] "Who Calls for Safe and Ethical AI for Health." World Health Organization. Accessed August 30, 2023. https://www.who.int/news/item/16-05-2023-who-calls-for-safe-and-ethical-ai-for-health.

ensuring that healthcare AI infrastructure is accessible and affordable for healthcare institutions of all sizes, locations, and socioeconomic backgrounds. The interoperability of healthcare AI systems with current healthcare infrastructure and systems is fundamental to reliable usage.

II. Questions to Consider in Your Research

- Do the pros of Artificial Intelligence Integration into healthcare outweigh the cons for your country?
- Does your country invest in Artificial Intelligence development and implementation?
- What are the key healthcare trends in your country? Can Artificial Intelligence help guide and support the development of your healthcare system?
- What are the most common health concerns in your country?
- How does your country's healthcare system run? Is it government-run? Privately-owned? Primarily smaller clinics or big Hospitals?

III. Questions a Resolution Might Answer

- What regulations and limitations should be placed on Artificial Intelligence in Healthcare?
- Who are the key investors in Healthcare AI infrastructure? How can we all benefit from the development and implementation of this infrastructure?
- How can we account for the ethical concerns of AI development and Implementation?
- How can set standards and regulations without imposing on any state's national sovereignty?

IV. Additional Resources

Ethics and Governance of Artificial Intelligence For Health
World health Organization's guidelines for The integration of AI in Healthcare. This resource highlights interesting considerations for nations looking to integrate AI into their healthcare systems.

The Role of Health Technology and Informatics in a Global Public Health Emergency: Practices and Implications From the COVID-19 Pandemic
This Assessment explores the practices and implications of utilizing health informatics for effective response during and post pandemic.

Opinions and attitudes toward humanoid robots in the Middle East
Research on perceptions and attitudes towards AI in the middle east in order to ensure effective implementation.

Topic II: Promoting global Arabic Studies programs to encourage diplomacy and improve the international reputation of Arab states.

I. Intro to Topic

A. General Background

Recently, UNESCO hosted a regional meeting called "Arabic Language, Beyond the Legacy" on October 24-25, 2022 in Rabat, Morocco which highlighted the significance of Arab Nations in promoting dialogue, understanding, and shared knowledge. During this, Gabriela Ramos, Assistant Director-General for Social and Human Sciences for UNESCO, said "It is not enough to simply preserve the legacy of Arabic […] this legacy must be an inspiration for us to build a better future." Globalization has had a tremendous influence on languages spoken in developed nations throughout the MENA region, especially in the proliferation of English as a dominant language. Due to such language proliferation, English has been able to assume a key role in the world's knowledge and diplomacy centers. The situation is worsened by MENA forcing their native language to a secondary status in favor of the global majority despite its rich history throughout the world. The failure to reinforce the language at home and in schools has only supported Arabic's position in the global linguistic scene. Many countries throughout the region have started to fight to defend their languages and promote Arabic studies as a means to encourage diplomacy and intercultural knowledge sharing.[15]

The way we create knowledge can be affected by the dominance of certain languages. This can restrict how Arabic knowledge is represented and shared worldwide. Also, when knowledge moves from one place to another or gets adapted, Arabic may face difficulties. Language affects how we use knowledge. Arabic-speaking communities experience trouble accessing knowledge mainly available in other languages. This slows down progress and involvement in global knowledge-based systems.[16] Some schools still teach in Arabic, but others prefer different languages. In a few Arab countries, public institutions offer programs in foreign languages. Because of this, Arabic is often used as a second language at home.

B. History in the Arab World

The colonization of the Middle East began with the British invasion of India followed by Napoleon's invasion of Egypt, partly aimed at distributing established British trade routes. Though the French occupation of Egypt was brief, it wasn't long before Europe's footprint in the Arab world expanded as "France's colonization of Algeria began in 1830, of Tunisia in 1881,

[15] ALESCO. Arab League of Educational, Cultural and Scientific Organisation 2019. http://www.alecso.org/nsite/en/component/content/article/814-who-are-we-v2?catid=63&Itemid=220 (accessed August 25, 2023).
[16] "Building Knowledge Societies in the Arab Region: Arabic Language as a Gateway to Knowledge." Unesdoc.unesco.org. Accessed September 2, 2023. https://unesdoc.unesco.org/ark:/48223/pf0000372586.

and of Morocco in 1912. Meanwhile, Britain colonized Egypt in 1882, and also took control of Sudan in 1899. And in 1911, Italy colonized Libya."[17] While most Arab countries achieved national independence and ended colonial control in the mid-twentieth century, the residue of colonialism remained. This effect is especially noticeable in critical sectors such as health, politics, and education. In The MENA region, there has been a trend of prioritization of Western languages, cultures, and value sets over traditional culture to the lasting effects of Western domination of MENA society.[18]

In 1942, the British started promoting the notion of the Arab League in an attempt to attract Arabs as allies in the struggle against Germany. It wasn't until 1945 that Arab governments signed the Arab League Pact in March 1945, effectively establishing the league. Amongst many of the pacts and agreements made by the Arab League, it wasn't until 1970 that Article 3 of the Arab Cultural Unity Charter created the Arab League Educational, Cultural and Scientific Organization (ALECSO). ALECSO was created with the intention of improving conditions for the development of Arab education, culture, sciences, and communication in the Arab world, disseminating Arab culture and language as well as further establishing channels of intercultural dialogue with other cultures worldwide.[19] ALECSO has been involved in projects endorsing Arab-led education projects, cultural enrichment programs (including language and cross-cultural communication), and scientific developments.

At the Damascus summit in 2008, the project for the "Arabic Language Promotion Towards The Knowledge Society" was adopted.[20] This includes developing research and development programs and boosting the number of Arabic-language research institutions.[21] Globalization has caused a shift in learning language prioritizing English over Arabic which caused a lack of Arabic learning within the MENA region. As English is reprioritized over Arabic the MENA region risks setting the standard of English as the norm for academic writing thus confining knowledge to the elite within the region who can afford to learn English. This project hopes to focus some attention on Arabic learning and research in order to curb the domination of English within the region.[22] Linguistics professor at the University of Tunisia, Mohamed Maamouri, argues that "If Arabic-speaking societies want to face the challenges of the 21st century" a collective endeavor is required to elevate levels of self-assurance in language use

[17] Arab Center Washington DC. "The Colonial Legacy in the Arab World: Health, Education, and Politics." Arab Center Washington DC, November 9, 2022. https://arabcenterdc.org/resource/the-colonial-legacy-in-the-arab-world-health-education-and-politics/.
[18] IBID
[19] ALESCO. Arab League of Educational, Cultural and Scientific Organisation 2019. http://www.alecso.org/nsite/en/component/content/article/814-who-are-we-v2?catid=63&Itemid=220 (accessed August 25, 2023).
[20] *Arab League of Educational, Cultural and Scientific Organisation*, 7 Mar. 2019, www.alecso.org/nsite/en/.
[21] "Arabic Language as Gateway to Knowledge." Unesdoc.unesco.org. Accessed August 31, 2023. https://unesdoc.unesco.org/ark:/48223/pf0000382914.
[22] IBID

and facilitate positive societal transformation.[23] Urgent language planning strategies are deemed necessary for the Arabic language, aiming to standardize it and enhance its accessibility.[24]

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

Nonprofits, such as the National Council on US-Arab Relations, partner with other Arabic institutions, such as the Lebanese American University and the Arab American Language Institute in Morocco (AALIM), to host intensive Arabic language immersion programs in which students from the United States can visit Arab nations like Morocco and Lebanon in order to gain a deeper understanding of Arabic language and culture through everyday interactions with the language. Experiential learning activities such as cultural excursions, interaction with native speakers, and participation with local populations supplement classroom training.[25] This dynamic approach to language study allows students to understand not just the linguistic complexities of Arabic, but also the cultural subtleties and social norms that characterize Arab cultures.

Sponsors such as Saudi Prince Alwaleed Bin Talal have funded Middle Eastern studies programs at colleges such as Harvard University, Georgetown University etc., allowing for future leaders to study the region's culture, economic system, language, history, and more. At their core, these programs serve as academic bridges that facilitate deeper understanding and cross-cultural engagement between different regions of the world. Saudi Prince Alwaleed Bin Talal's contributions, in particular, have garnered attention for their significant impact on these educational endeavors.[26] The impetus behind such sponsorships goes beyond mere financial assistance. These programs were initially conceived with a noble intention: to foster meaningful interactions and dialogue between Islamic nations and the Western world. The aftermath of the tragic events of September 11, 2001, cast a shadow of misunderstanding and prejudice over Islam. By offering students the opportunity to study the Middle East comprehensively, these programs aim to dismantle the myths and stereotypes that have often clouded perceptions. They provide a platform for nuanced discussions, constructive conversations, and in-depth analyses of the region's diverse facets. Beyond promoting knowledge acquisition, these initiatives serve as vital conduits for cultural exchange, building bridges of understanding and empathy among people from different backgrounds.[27]

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[23] IBID
[24] Maamouri, Mohamed. “Language Education and Human Development: Arabic Diglossia and Its Impact on the Quality of Education in the Arab Region.” ERIC, August 31, 1998. https://eric.ed.gov/?id=ED456669.
[25] “Study Abroad - NCUSAR.” National Council on U.S.-Arab Relations. Accessed September 2, 2023. https://ncusar.org/study-abroad.
[26] Stillwell, Cinnamon. “Why Saudi Prince Bin Talal Funds Middle East Studies in America.” Campus Watch. Accessed August 29, 2023. https://www.meforum.org/campus-watch/19776/why-saudi-prince-bin-talal-funds-middle-east.
[27] IBID

Aside from language training, cultural immersion, and Middle Eastern studies programs these initiatives help to develop friendship and collaboration between the United States and Arab countries. Participants return to the United States with a more nuanced understanding of the Arab world and may serve as cultural ambassadors in their communities, encouraging mutual tolerance and understanding. Furthermore, collaborations between governmental institutions, colleges, and language institutes show the value of joint efforts in establishing educational exchanges. These projects also establish academic links among the institutions involved and set the path for future partnerships, research opportunities, and knowledge-sharing in a variety of sectors.

II. Questions to Consider in Your Research

- What attempts has your country made to increase diplomacy and prompt Arab culture?
- How Has Your Country Collaborated with ALESCO?
- What local efforts has your country taken in order to promote the Arabic language?
- How has globalization affected the role of Arabic in your nation's society

III. Questions a Resolution Might Answer

- What partnerships and collaborations with international organizations and NGOs can be established to support the promotion of Arabic Studies and cross-cultural dialogue?
- How can governments and educational institutions in Arab states work together to provide scholarships and financial support for international students interested in studying Arabic?
- What role can digital and online platforms play in promoting Arabic Studies and enhancing the international reputation of Arab states?
- What specific measures can be taken to improve the quality and accessibility of Arabic language education worldwide?
- How can Arab states collaborate with foreign universities and institutions to establish joint Arabic Studies programs and research initiatives?

IV. Additional Resources

Cultural diplomacy in Qatar: Between 'virtual enlargement', national identity construction and elite legitimation
This article assesses the development of national identity and its effect on cultural diplomacy.
New Media and the Information Revolution in the Arab World: An Assessment
This Research examines the information revolution in the arab and access it the arab world experiences with the english language content on the internet.
The Soft Power Differential: Network Communication and Mass Communication in Public Diplomacy

This research assesses Mass media and the power it has to influence Public and global diplomacy.

Language Policy and Education in the Middle East and North Africa

This research examines the current state of the Arabic language (especially in regards to arab education) within the MENA region.

Topic III: Evaluating and creating new farming practices and civilian infrastructure throughout the Arab League to help mitigate hunger.

I. Introduction to Topic

A. General Background

The most recent edition of *The Regional Overview of Food Security and Nutrition in the Near East and North Africa* "estimates that more than 51 million people in the region are suffering from hunger."[28] According to the report, the "triple burden of malnutrition", consisting of undernutrition, overweight and obesity, and micronutrient deficiencies (often linked to poor diets), continues to increase at an alarming speed in the Arab region, particularly among school-age children and adults. The report highlights that 22.5 percent of children under 5 years of age were stunted, and 9.9 percent were overweight. The Arab region also ranked second for adult obesity in the world in 2019, with 27 percent of the adult population obese.[29] Professionals such as Abdulhakim El Waer, the Assistant Director-General and Regional Representative for the Near East and North Africa at the FAO (Food and Agriculture Organization) have previously cited regional conflicts as principal reasons for hunger proliferation. He went on to elaborate and mention the role of population growth, migration, increasing reliance on food imports, water scarcity, and climate crises.

It is critical that Arab governments confront the intensified effect of Covid-19 on the region's already deteriorating food issue. According to an FAO report, at least 132 million people have been plunged into chronic hunger since the start of the pandemic, with up to 14 percent of food lost along the supply chain before it reaches consumers, and entire regions facing acute water stress.[30] Countries in the MENA region are usually among the world's greatest importers with many of them even depending on imports for half of their nutrition needs. For example, "in 2019 before the COVID-19 pandemic, Saudi Arabia imported $10.5 billion of key agri-food products and exported just $1.7 billion—a deficit of $8.8 billion."[31] As Covid-19 started to shut down supply chains, import-reliant countries began to feel the pressure of food insecurity as they were cut off from food sources by the Covid-19 shutdowns.

While COVID-19 has had significant impacts on food production in the Middle East, another looming concern that threatens agricultural sustainability and productivity in the region is the escalating influence of climate change. As temperatures continue to accelerate and water

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[28] "Enhancing Resilience of Food Systems in the Arab States." UNICEF Middle East and North Africa, January 1, 2021. https://www.unicef.org/mena/reports/enhancing-resilience-food-systems-arab-states.

[29] IBID

[30] Malek C. How covid-19 crisis undermined MENA states' food security progress. Arab News 2021. https://www.arabnews.com/node/1971861/middle-east (accessed August 25, 2023).

[31] PricewaterhouseCoopers. How the Middle East can promote Agritech. PwC n.d. https://www.strategyand.pwc.com/m1/en/strategic-foresight/sector-strategies/consumer-retail-industry/promoteagritech.html#:~:text=There%20are%20six%20main%20forms,%2C%20 vertical%20 farming%2C%20and%20 greenhouses. (accessed August 25, 2023).

scarcity grows due to the threat of climate change, desertification continues to threaten the fertility of the already scarcely fertile soil. According to the Carnegie Endowment for International Peace, "agriculture is the largest water-consuming sector in the Middle East, so desertification is expected to intensify food insecurity in the region."[32] As desertification worsens, already parched land will get dryer, and desert dust will collect, leading to rampant and destructive sandstorms.

B. History in the Arab World

Sustainable agrotech has seen its most impressive developments in the last decade. The escalating demand for sustainable agrotech solutions has created significant opportunities for newly developing companies to make substantial advancements in their efforts to innovate against hunger. In 2004, UAE-based RNZ agrotech industries began their endeavors to test and create "new crop-specific agri-input solutions including water-soluble, granular, and organic fertilizers for hydroponic and vertical farms."[33] RNZ then takes its data and works with MENA-based agronomists to preserve soil and maximize production. The Abu Dhabi Investment Office recently selected RNZ as one of four firms to receive a $25 million award targeted to companies developing environmental solutions for drought-prone climates such as the MENA region.

In 2016, Sky Kurtz founded the startup recognized as Pure Harvest in the UAE. Pure Harvest uses artificial intelligence, robotics, and hydroponics to create Climate-controlled year-round farming environments. They employ bumblebee-pollinated nutrient mixtures to ensure growth while the greenhouses utilize sensors to modify temperature, moisture, and sunlight. In past years, Pure Harvest has made its mark as a significant contributor to the agrotech initiatives aimed at combating hunger in the MENA region. As mentioned by CIO "Wafra, Kuwait's national investment company, pledged a performance-contingent commitment of $100 million to Pure Harvest in April 2020 – the largest agrotech investment in the MENA region to date."[34] Much like Pure Harvest, Madar Farms works to create climate-controlled environments and hydroponic infrastructure that need less water than average. Within Madar Farms environments, "LED panels are used instead of sunlight for a more water- and energy-efficient model of growing that helps drastically reduce evaporative cooling – an

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[32] Cascading climate effects in the Middle East and North Africa: Adapting ... Accessed August 29, 2023. https://carnegieendowment.org/2022/02/24/cascading-climate-effects-in-middle-east-and-north-africa-adapting-through-inclusive-governance-pub-86510.

[33] 6 Middle East Agritech companies innovating farming for Food Security. CIO 2021. https://www.cio.com/article/189230/6-middle-east-agritech-companies-innovating-farming-for-food-security.html (accessed August 25, 2023).

[34] "6 Middle East Agritech Companies Innovating Farming for Food Security." CIO, September 11, 2021. https://www.cio.com/article/189230/6-middle-east-agritech-companies-innovating-farming-for-food-security.html.

important feature in a water-scarce country that currently dedicates approximately 70% of water resources towards agriculture alone."[35]

Red Sea Farms, a Saudi Arabian-based endeavor, works on employing the power of seawater to regulate the temperature of the greenhouse and irrigate the plants in greenhouses. Instead of relying on energy-intensive desalination processes, the startup substitutes "up to 95% of the freshwater utilized for evaporative cooling" with saline water. Their greenhouse structures feature panels developed by Iyris Technologies that not only passively block heat by absorbing infrared light but also generate solar energy.[36]

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

With the emergence and growth of agrotech companies in the MENA region, it becomes evident that their commitment remains unwavering towards addressing the pressing challenges in food commerce specific to the Middle East and North African region. Through examining the ecological needs of the MENA region, one can see there are five primary methods of agrotech that are effective for the needs of the region. For example, controlled simulated environments in which factors like light, temperature, humidity, and nutrients are modified based on the needs of the environment. Another method that has yielded positive results in the MENA region is the use of precision agriculture which "uses data and technology to ensure that crops and soil receive exactly what they need for maximum health and productivity that can involve temperature and moisture sensors, aerial images, GPS technology, and artificial intelligence."[37]

Desert farming has also presented itself as a sustainable alternative, in which farmers improve the soil's ability to hold water or devise appropriate proxy irrigation systems. Seawater irrigation, for example, allows farmers to substitute a resource that they lack, freshwater, with a resource they have in abundance, saltwater. Utilizing saltwater as a means of irrigation can lead to soil enrichment and yield production. Cellular agriculture uses cell cultures to create proteins, lipids, and tissues, avoiding emissions-intensive traditional agriculture that focuses on animal products such as meat, milk, and eggs.[38]

In order for the Middle East to fully benefit from the agrotech solutions that are being developed, our nations must support the research, development, and implementation of these as critical agriculture infrastructure as well as recognize socioeconomic inequities and technology gaps across our member states. First, many experts consider the first step to be partnering with these companies to manufacture these technologies in the region to ensure that these countries aren't switching their trade deficits from food imports to capital goods and machinery. Once that

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has been accomplished, it is critical that these businesses receive financial, commercial, and regulatory assistance in order to get their technologies to market.

Another way governments can ensure the success of these emerging technologies is to assume the role of a co-investor. In taking a direct stake in the R&D as well as commercialization of the products the government can maneuver throughout the market considering both the best interest of the people and the bottom line of the company. The government provides capital and may also set fair pricing, boosting confidence, and attracting further investment. As research and development take shape, governments can help in the recruitment of highly skilled talent that can be invaluable to the evolution of the project. Once establishing its talent base, much like The Netherlands which hosts the World Horti Center which focuses on greenhouse agriculture, the governments of member states can establish national prototyping and research centers to further the development, production, and commercialization of emerging agrotech.[39]

II. Questions to Consider in Your Research

- What forms of Argotech benefit my country and our needs?
- Does your country invest in Argotech development and implementation?
- How can this improve Farmers' and food producers' bottom line?
- How can we ensure profits for the company while maximizing benefits for food producers?
- What Regulatory concerns would your country have?

III. Questions a Resolution Might Answer

- What incentives are available or can be created to support emerging agrotech
- Who are the key investors in Agrotech in your country? How can we all benefit from the development and implementation of this infrastructure?
- How can we ensure that agrotech is not only improving yield but also ensuring nutrition?
- How can set standards and regulations without imposing on any state's national sovereignty?
- What are the potential economic and social benefits of widespread agrotech use in the MENA region, particularly in relation to reducing hunger and poverty?
- How can small-scale farmers in the MENA region access and afford agrotech tools and technologies to improve their agricultural practices?
- How can governments and agricultural stakeholders collaborate to promote the adoption of agrotech practices among farmers in the MENA region?
- How can we create sustainable equitable access to agrotech technologies?

[39] "Our Story." World Horti Center. Accessed September 3, 2023. https://www.worldhorticenter.nl/en/our-story.

IV. Additional Resources

- The Implications of the Russia-Ukraine war on sustainable development goals in Africa
  This investigates the length to which the ukrainian invasion has impacted sustainable development particularly in the North African Region.
- Food Security and Economic Development in the Middle East and North Africa
  This article employs the idea of Food Security to analyze the region's issues in four important areas: economic growth and income, commerce and infrastructure, agriculture and water, and health and education.
- Promoting a New Economy for the Middle East and North Africa
  This collection of essays highlight potential pathways to economic development in the MENA region including in the agriculture sector
- Conservation Agriculture in the drylands of the Middle East and North Africa (MENA) region: Past trend, current opportunities, challenges and future outlook
  This essay highlights challenges and opportunities to promote agriculture preservation.

Topic IV: Enhancing and upholding the rights and protections of displaced persons within the MENA region.

I. Introduction to Topic

A. General Background

Established in 1998, the Guiding Principles on Internal Displacement serve as a comprehensive framework that encapsulates and brings together the pertinent elements of international human rights and humanitarian laws that are applicable to individuals who have been internally displaced. According to the Guiding Principles on Internal Displacement, internally displaced persons (also known as "IDPs") are Individuals or collectives who have been compelled to escape or depart from their usual homes or locations due to reasons such as armed conflict, widespread violence, human rights abuses, natural disasters, or man-made calamities, and who have not crossed a border that is internationally recognized.[40] Unlike refugees, who cross international boundaries to seek asylum in another country, Internally Displaced Persons (IDPs) remain within their own country's borders. Despite not leaving their nation, internally Displaced Persons (IDPs) frequently experience the same hardships as refugees, such as the loss of their homes, communities, and access to basic necessities. They frequently require humanitarian aid and protection within their own nation.

According to the Principles, once displaced, IDPs must maintain a certain level of economic, social, political, cultural, and civil protection. The principles stress a fundamental sentiment of human assistance such as food, medication, housing, protection from harm, the right to an education, freedom of travel and residence, etc. Displaced people, particularly women and children, are more likely to face physical abuse, sexual assault, and abduction. They frequently lack proper housing, food, and healthcare. Mortality rates among displaced people are much higher than in the overall population. As per the UNHCR MENA report, by the end of 2022, the Middle East and North Africa region will have 2.4 million refugees and 12.6 million internally displaced persons.[41]

B. History in the Arab World

In 2022 the Vulnerability Assessment of Syrian refugees in Lebanon, created by the United Nations High Commissioner for Refugees, found that almost 90% of Lebanon's population is in need of assistance due to extreme poverty. In Yemen, 78% of the population was at risk of poverty, exacerbating the issue for the 90,700 refugees and asylum seekers and 4.5 million displaced Yemenis, 75% of whom were women and children. Over 90,000 Sahrawi refugees in Tindouf, Algeria, saw food prices double, putting them in danger of hunger and

[40] International standards. OHCHR n.d. https://www.ohchr.org/en/special-procedures/sr-internally-displaced-persons/international-standards (accessed August 26, 2023).
[41] IBID

malnutrition.[42] Many of the region's forcibly displaced and stateless people are school-aged therefore they are at risk of dropping out of school and having limited employment prospects. 130,000 children received specialized education, while approximately 100,000 children engaged in child protection and psychosocial support programs.[43] Despite underfunding, UNHCR dispersed around $323 million to 2.2 people for the purchasing of food, shelter, healthcare, rent, and utilities.[44] The UNHCR delivered key relief materials to 1 million people and sustained cross-border support for the emergency response in Northern Western Syria. The dire situations faced by Internally Displaced People in Lebanon, Yemen, and Algeria, as highlighted by the 2022 Vulnerability Assessment, underscore the urgent need for humanitarian support and interventions in the Middle East. These challenges are not isolated incidents but are part of a larger history of internally displaced people in the region over the past two decades.[45]

Conflict, civil conflicts, and localized violence have been the leading causes of displacement, and climate-related disasters are projected to exacerbate the situation. The economic impact of displacement and relocation adds to the pressure already placed on governments striving to provide assistance and basic services. The COVID-19 epidemic has further exacerbated the problem. As the COVID-19 pandemic continues its impact on internally displaced persons, its aftermath has also exacerbated rising anti-immigrant sentiment, further complicating the lives of these vulnerable populations. Days leading up to the most recent presidential election in Turkey, opposition candidate Kemal K. declared a clear anti-immigrant status that was met with both praise and national uproar. In his statement, he promised to "Expel all the Syrians within two years" and began the distribution of flyers that read "refugees will return home."[46] Due to economic crises, reduced international assistance, and national fatigue, support for IDPs is decreasing across the Middle East. This rising antagonism against internally displaced peoples, along with dwindling assistance and resources, portrays a worrying and hard future for the well-being and safety of those who are currently dealing with the devastation of displacement.

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[42] "Lebanon - Preliminary Results of the Vulnerability Assessment of Syrian Refugees - Vasyr 2022." UNHCR Operational Data Portal (ODP). Accessed August 29, 2023. https://data.unhcr.org/en/documents/details/100844.

[43] IBID

[44] Middle East and North Africa. Global Focus n.d. https://reporting.unhcr.org/operational/regions/middle-east-and-north-africa?_gl=1%2Apvcj3l%2A_rup_ga%2AMjA1NTI3MDY1NC4xNjg4NzU4NTQ5%2A_rup_ga_EVDQTJ4LMY%2AMTY4ODc1ODU0OC4xLjEuMTY4ODc1OTI0Mi4wLjAuMA..%2A_ga%2AMjA1NTI3MDY1NC4xNjg4NzU4NTQ5%2A_ga_X2YZPJ1XWR%2AMTY4ODc1ODU0OC4xLjEuMTY4ODc1OTI0Mi4wLjAuMA..#_ga=2.63054189.31492760.1688758549-2055270654.1688758549 (accessed August 26, 2023).

[45] IBID

[46] Todman, Will. "Support for Refugees Erodes in the Middle East." CSIS. Accessed September 3, 2023. https://www.csis.org/analysis/support-refugees-erodes-middle-east.

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

Syria Justice and Accountability Centre (SJAC) is a non-governmental Syrian human rights organization that "holds perpetrators accountable" and "addresses grievances."[47] For the last 10 years, the SJAC has been collecting and documenting evidence for transnational transgressions committed against Internally Displaced Peoples in Syria in order to ensure accountability based on its library of evidence compiled from hundreds of detailed witness interviews, primary documents from Syria, and over 1 million open-source films. SJAC has developed working links with European war crimes units, as well as the Europol AP CIC and the International, Independent, and Impartial Mechanism (IIIM), and answers to queries in specific instances with actual evidence on a regular basis. The organization's work to improve accountability continues through the establishment of "an investigative team to build cases against particular suspects who are within the reach of existing justice mechanisms…..SJAC's legal team analyzes evidence and presents it to relevant authorities within the proper context."[48] At the start of April 2020, SJAC began a trial monitoring system that monitors the progress of international court cases on behalf of those affected. Recently the center has been able to monitor cases such as cases "against El Shafee Elsheikh and Alexanda Kotey (the so-called "ISIS Beatles") at the Federal District Court for the Eastern District of Virginia in Alexandria, USA."[49]

Governmental bodies like UNDP and UNHCR have taken an active role in remedying the aforementioned challenges that displaced persons face in the MENA region. In regards to Food Security, UNHCR's Food program assists with the early detection, treatment, and management of malnutrition following a community-based Management of Acute Malnutrition (CMAM) model where UNHCR "involves the community, raising their awareness of good nutrition, while also actively screening people for malnutrition, referring them for treatment, and following up on their progress."[50] The community-based model combined their health consultation services to make basic healthcare services available, including dietary counseling, with the goal of reducing linked health issues like obesity and chronic illnesses. UNHCR also actively monitors nutrient deficiencies among displaced populations and provides nutrient supplementation and treatment as part of routine health services when necessary. Concerns among refugee populations concentrate on anemia and Vitamin A deficiencies, which disproportionately impact small children and women with greater dietary requirements. Anemia can have a significant influence on children's growth and learning ability, as well as adults' general health and quality of life. It can also raise the risks and problems of pregnancy and labor, as well as aggravate pre-existing medical conditions.

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[47] "About." Syria Justice & Accountability Centre, September 9, 2022. https://syriaaccountability.org/about/.
[48] IBID
[49] IBID
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For this Debate, the body would benefit from the prioritization of MENA-based NGOs and the collaboration of Middle Eastern governmental bodies. Collaboration with Middle Eastern NGOs and resilient government infrastructure enables more cultural awareness and adherence to local customs while tending to the needs of displaced persons. These groups are frequently more familiar with low-cost and locally feasible solutions, ensuring that resources are deployed efficiently to address specific concerns. Locally based NGOs and entities frequently enjoy better reputations and inspire more confidence within their communities.

II. Questions to Consider in Your Research

- How does the presence of anti-immigrant sentiment affect the rights and safety of displaced people in your nation?
- What legal frameworks and policies are in place to protect refugees in the Middle East?
- What are the most effective approaches to address the mental health and psychosocial needs of displaced individuals who have experienced trauma?
- How can technology and innovation be utilized to improve access to information and services for displaced populations?
- What measures can be implemented to ensure the inclusion and integration of displaced populations into the host communities, while respecting their cultural identities?

III. Questions a Resolution Might Answer

- How can education and vocational training opportunities be expanded to empower displaced individuals and increase their self-reliance?
- What strategies can be employed to combat discrimination and xenophobia towards displaced people in the Middle East?
- What are the key challenges and opportunities in providing healthcare services to displaced individuals, particularly during public health crises like the COVID-19 pandemic?
- How can host countries establish effective mechanisms for identifying and registering displaced populations to ensure their access to rights and assistance?
- What role can regional organizations play in promoting and safeguarding the rights of displaced people in the Middle East?

IV. Additional Resources

- The health effect of the Syrian conflict on IDPs and refugees.
- *The Syrian conflict has had overwhelming yet unexamined health consequences on Syrian IDPS. The current study sought to analyze the physical and mental consequences of the Syrian experience.*
- Middle East and North Africa Refugee and Host Communities & Frontier Agriculture: Climate Smart and Water Saving Agriculture Technologies for Livelihoods

This report is a joint World Bank and UNHCR initiative and product that highlights Sustainable agriculture technologies.

- International Responsibility-Sharing for Refugees: Perspectives from the MENA Region *Highlights Considerations, Challenges, Opportunities for responsibility sharing to ensure safety measures for IDPs.*