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**Description of the Module**

This module will attempt to address the linkage between climate change and migration in the Middle East/N. Africa region. The region is one of the most water scarce regions in the world holding approximately 6.5% of the world population, but only 1.4% of the world's renewable fresh water and this scarcity is only predicted to get worse in the near future as the population grows. Yet, the empirical evidence between climate change and extreme weather conditions and migration either temporary or permanently remains limited. There's also evidence while changes in climate does have an impact on the overall conditions of the people in the region, other factors such as socioeconomic and political factors remain more prominent push factors for migration than climate change. This will be a three-week module with students working on a semester long project.

Following the completion of this module, students will be able to:

- Identify the difference between science and fiction regarding climate change
- Describe the consequences of climate change
- Identify and explain the cultural diversity in the Middle East/N. Africa Region
- Analyze the various push factors in migration in the Middle East/N. Africa region
- Identify the future prospects of climate change and migration in the Middle East/N. Africa
- Analyze the steps to mitigate and alleviate internal and external migration in the Middle East/N. Africa region

**Module Outline**

**WEEK I**

Week I will introduce students to the overall and global politics, and impacts of climate change. The students will:

1. Students will watch the documentary "Before the Flood." This is very much an educational and advocacy documentary, produced by the Oscar winning actor Leonardo DiCaprio. It's a documentary about what is happening to the world we live, what's going to happen, and what we can do to prevent the worst possible outcomes.
2. Complete the worksheet provided.
3. Classroom discussion on the documentary and the completed worksheet.

**WEEK II**

Week II will focus on the region of the Middle East/N. Africa and will cover the following:

1. A brief history of the region and civilizations and their relation to the water in the region
2. Introduction to climate regions and water scarcity in the region
3. Introduction to the cultural diversity of the region
4. View the "Middle East and Climate Change" documentary by Geoffrey Kemp followed by an in-class discussion.  
<https://www.youtube.com/watch?v=A-HOG70aNLM>

## Week III

Week III will focus on the specifics of the linkage between climate change and migration in the region and will cover the following. Students will read the following articles prior to coming to class.

Climate-Exudes expected in the Middle East and North Africa

<https://www.mpg.de/10481936/climate-change-middle-east-north-africa>

Extreme Heat will Make Parts of Middle East and Africa uninhabitable by 2050

<https://gizmodo.com/extreme-heat-will-make-parts-of-the-middle-east-and-afr-1774311994>

1. Introduction to the migration patterns in the region
2. Investigate the pull and push factors of immigration
3. Investigate the perception of the people on the region about climate change
4. The impact of climate change as a push factor for internal and external migration
5. Future prospects of climate change migration and possible solutions

### **Student Assessment**

Students will be divided in small groups (2 or 3 students to a group) and will work on a research project throughout the semester. Each group will choose a country of their choice in the region and will research the connection between climate change and migration. Each group will be assessed based on the following:

1. Completion of the worksheet on the “Before the Flood” documentary and in-class discussion.
  2. A research paper on the impact of climate change on migration in the specific country the group has chosen. The research paper must include the following.
    - 2.1 Introduction to the climate and cultural diversity of the country
    - 2.2 The factors contributing to the internal and or external migration
    - 2.3 How the perception of the people about climate change impact their attitude about migration
    - 2.4 Possible efforts and solutions to alleviate the impacts of climate change
  3. An in class presentation on the research paper and the findings of the research.
- A written 10-page paper
  - In class Presentation

Each group will choose a country of their interest in the region.

Each group will conduct research on the impact of climate change and migration in that specific country.

Research Paper (50 Points)

1. The pattern of migration in the chosen country
2. The impact of climate change as a push factors
3. Measures if any have been taken to deal with the impact of climate change

Presentation (25 Points)

## ***Before the Flood Documentary Worksheet***

### **Directions:**

- Watch the documentary “Before the Flood.”

- After watching the documentary, analyze and answer the discussion questions below and provide your own answers as completely as possible.
- The link for the documentary is provided below.

<https://archive.org/details/youtube-90CkXVF-Q8M>

1. Briefly describe your view on climate change. Is it real? Is it caused by human activity?

2.1 Briefly describe the key pieces of evidence presented in the documentary supporting the climate change argument.

2.2 Have any of your ideas involving global warming changed after watching the documentary? Explain why or why not and provide several examples.

3.1 During the documentary, we saw countless ways that our consumption is ruining the environment. What effect on our planet was the most shocking to you?

3.2 What climate change solutions gave you the most hope for the future of the planet? Explain why.

4.1 As evidenced in the film, every decision we make can have an environmental impact. What Changes are you willing to make in your day to day life to reduce your carbon footprint? Be real and honest.

4.2 How will you keep yourself accountable?

5. Every November, we have a chance to elect politicians with our best interests in mind, serving both locally and in Washington D.C. If you were elected to office, what actions would you take to ensure a sustainable future for future generations?

6. Are you optimistic or pessimistic about the future of our planet? Explain why or why not?

## **Resources**

### **Videos**

Before the Flood

<https://archive.org/details/youtube-90CkXVF-Q8M>

Middle East and Climate Change

<https://www.youtube.com/watch?v=A-HOG70aNLM>

### **Readings**

Traveling in Hope

<https://www.economist.com/international/2016/10/22/travelling-in-hope>

A Worsening Water Crisis in North Africa and the Middle East

<http://theconversation.com/a-worsening-water-crisis-in-north-africa-and-the-middle-east-83197>

Immigration Data Matters

<https://www.migrationpolicy.org/research/immigration-data-matters>

Extreme Heat will Make Parts of Middle East and Africa uninhabitable by 2050

<https://gizmodo.com/extreme-heat-will-make-parts-of-the-middle-east-and-afr-1774311994>

Climate-Exodus Expected in the Middle East and North Africa

<https://www.mpg.de/10481936/climate-change-middle-east-north-africa>

The Facts about Climate Change and Drought

[https://www.climaterealityproject.org/blog/facts-about-climate-change-and-drought?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=general&utm\\_content=droughts&gclid=CjwKCAjw0ov eBRAmEiwAzf6\\_rI17QM1Ua90uH-4NwxSOMq0\\_iuK2ikes15qK2VIMewqsXAAmLyBqkxoCrvEQAvD\\_BwE](https://www.climaterealityproject.org/blog/facts-about-climate-change-and-drought?utm_source=google&utm_medium=cpc&utm_campaign=general&utm_content=droughts&gclid=CjwKCAjw0ov eBRAmEiwAzf6_rI17QM1Ua90uH-4NwxSOMq0_iuK2ikes15qK2VIMewqsXAAmLyBqkxoCrvEQAvD_BwE)

Water is Focus of Climate Change in the Middle East and North Africa

[http://web.worldbank.org/archive/website01418/WEB/0\\_C-151.HTM](http://web.worldbank.org/archive/website01418/WEB/0_C-151.HTM)

Climate Change Contributes to Worst Middle East Droughts in 900 Years.

<https://www.mondialisation.ca/climate-change-contributes-to-worst-middle-east-drought-in-900-years/5518687>

NATO Report on Migration from Middle East

<https://www.reuters.com/article/us-nato-climatechange/nato-lawmakers-warn-climate-change-may-worsen-middle-east-security-risks-idUSKBN18I22S>

Climate Discovery

<https://climatediscovery.org/>