TITLE: Food Commodity Chain & Food Disruptions

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SUMMARY OF THE LESSON/UNIT:
This lesson is intended to give students a background and understanding of the challenges of feeding a population including lack of food access, food insecurity, problems with distribution of food, adverse weather, and land use loss. This lesson will focus on the agricultural production and consumption patterns in the Middle East (Syria) and how different environmental, social, economic, and cultural opportunities and challenges are facing the Middle East region.

SUBJECTS:
Geography, Human Geography, Advanced Placement Human Geography, Urban Geography, Development

GRADE LEVEL(S): 9th - 12th

TIMING: 1 - 3 days

STANDARDS:
- College Board Enduring Understanding: SPS-6.A: Urban areas face unique economic, political, cultural, and environmental challenges.
- College Board Enduring Understanding: IMP-6: The attitudes and values of a population, as well as the balance of power within that population, are reflected in the built landscape.
- College Board Enduring Understanding: IMP-5: Agricultural production and consumption patterns vary in different locations, presenting different environmental, social, economic and cultural opportunities and challenges.

ESSENTIAL QUESTION/COMPELLING QUESTION:
- Explain the causes and effects of geographic change within agricultural areas.
- Explain a Food Supply Chain and different parts of the chain are connected.
- Explain how a disruptor can impact the food supply chain and ultimately the people who rely on this food supply chain.

LEARNING OBJECTIVES:
- Students will be able to explain a food supply chain and disruptors of the chain
- Students will be able to apply concepts such as economic, political, cultural, and environmental challenges that impact the food supply chain on a local to global scale.
- Students will be able to discuss the conflicts over land use within large cities as a result.

LISTS OF MATERIALS/RESOURCES NEEDED:

Readings: Syria:
1. Agriculture and Conflict
2. USAID Syrian Agriculture Report
3. World Factbook: Syria

BACKGROUND/CONTEXT/RATIONALE: This is essential. Provide a summary of the lesson/unit. Also include the content information that a teacher would need to know to be able to teach this lesson/unit well. 1-2 pages. Another component that could be included are common misconceptions or potential challenges that teachers should be aware of and may need to explicitly address.

This lesson will help students understand the Food Supply Chain and how disruptors can impact this chain. Students will be introduced to the concept of food supply chain and learn how the movement of a commodity moves from farmer to consumer. Students should think about potential disruptors that could impact each link of the supply chain, for example: What could be a disruptor for a farmer? Farmers' production could be disrupted from drought which is an environmental disruptor. Students then want to think about how a drought would impact the rest of the supply chain?

![Food Supply Chain Diagram]

- farmer
- processor
- distributor
- retailer
- consumer

Movement of food
Movement of money
PROCEDURES/PROCESS/TASKS:

Part I. Introduction: 15 minutes
Introduce the concept of a supply chain. Use the diagram below to help you talk about how a commodity moves from farmer to consumer and as money from the consumer returns back to the different links of the supply chain. Here is a great video to help explain the Food Supply Chain: https://youtu.be/1ctiqfyn15Hw

![Supply Chain Diagram]

Part 2 (25-30 min)

Introduce students to chain disruptors. Chain disruptors are variables that will cause a disruption in the supply chain such as conflict, drought, infrastructure failure, or labor problems etc. The video suggested above talks about disruptors from covid. There are numerous disruptors, but have students think about what could disrupt different links in the supply chain. Have students pair share with a student next to them and then the class can discuss the different disruptors. Worksheet Provided

Then ask students to consider the consequences of these events, they can begin to understand how all the processes are interconnected. How would disruptors impact the other links in the supply chain? Ask students to come up with their own examples and share with the class

Part III: Homework / Reflection

1. Explain how the food supply chain works going from Farmer to Consumer as well as to Consumer to Farmer.

2. Explain what might happen when steps in the supply chain are disrupted from the Farmer to the Consumer?

3. Explain what might happen when steps in the supply chain are disrupted from Consumer to Farmer?
4. What do you think might happen when steps in the supply chain are taken out? What are the consequences for consumers and producers?

**Part IV: Case Study Syria**

Syria was one of the largest exporters of agricultural commodities in the Middle East region. It has produced many agricultural commodities for local as well as global economies. Lately Syria has had many challenges such as drought, war, and many new political policies that have impacted farming and thus disrupting the food supply chain and how this is impacting local communities, regional communities, as well as global communities.

**Step 1:** Have students look at how land is used in Syria and have a class discussion about what they observe in the following image:

![Figure 2: SYRIA: Distribution Of Agricultural Lands](Image Source: USDA Foreign Agricultural Service)

**Step 2:** Have students read the following articles about Syria’s farming industry. These readings will help students gain a deeper understanding of what types of farming are located where. After reading have students map the top crops as well as animal commodities farmers produce using the following map:

Readings:
*Story Map*
*USDA Report*
Step 3: Have students map the top farm commodities grown in Syria.

Step 4: After reading a little about Syria’s land use and what types of crops they grow. Looking at this satellite imagery of a Northern Region in Syria, what kind of crop do you think this land is being used to grow?
Step 5:
Have students read the following article and record current disruptors on the following chart:

<table>
<thead>
<tr>
<th>Farmer Land Use</th>
<th>Processor Processing the Food</th>
<th>Distributor Moving the Food</th>
<th>Retailer Food Distribution either stores or restaurants</th>
<th>Consumer Consumes the final product</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are potential disruptors to farmers that could potentially hurt their agricultural production?</td>
<td>What are potential disruptors to food processors that could impact the production of food?</td>
<td>What are potential disruptors that could impact the movement of food from one point to another?</td>
<td>What are potential disruptors that could impact the distribution of food?</td>
<td>What are potential disruptors that could impact consumers obtaining food?</td>
</tr>
</tbody>
</table>

*When thinking of examples of disruptors in the chain, label if the disruptor is an Economic, Social, Political or Environmental Disruptor*
Step 6: Assessment

Looking at this graph answer the following questions:

1. Explain disruptors in the Syrian Food Supply Chain and how this is impacting local communities in Syria.
2. Define imports and exports?
3. Explain how having most crops and animal products imported will impact Syrian people.