Impact of Oil and Physical Features on People in the Middle East

The activity is set up as a Jigsaw. Groups of students will be assigned one of six Middle East countries. Each group will answer questions based on a population density map, information about oil, climate maps, and images about transportation. After each group has gathered information about their own Middle East country, the groups will shuffle and share information about all of the countries to create generalizations about why people live where they live in the Middle East. Note: Print out the maps and student documents in color. Put the sheets in sheet protectors in needed to use them in each class.

- Phase I [Parts I-IV]
  - Assign students into six groups: Afghanistan, Iraq, Iran, Saudi Arabia, Turkey, Israel. Use the country cards if desired.
  - Give each student an "Impact of Oil and Physical Features on the Middle East" student document. Although the students are working in groups, each student should answer the questions in preparation for the group shuffle. Groups should work together though to generate answers to the questions.
  - Give each group their country population density map [the maps are dated 2000, but should not vary greatly from today's distribution]. Give students a few minutes to look over the population density map. Discuss as a group ways to read the map. Groups will keep the population density map throughout Phase I of the Jigsaw.
  - Pass out the "Distribution of Oil" handout. Groups should use their population density map and the distribution of oil handout to answer part I questions on the student document.
  - Pass out the "Water in the Middle East" handout. Groups should use their population density map and the water in the Middle East handout to answer Part II questions on the student document.
  - Pass out the "Climate in the Middle East" handout. Groups should use their population density map and the climate in the Middle East handout to answer Part III questions on the student document.
  - Pass out the "Transportation in…" images to each specific group. Groups should use the images to answer Part IV questions on the student document.
- Phase II [Part V]
  - Assign new groups that contain one person from each country group. Use the country cards if desired. As, Bs, Cs, Ds, Es, and Fs can be grouped together.
  - Students should share the information from their specific country.
  - The group should complete "Bringing It All Together" Part V of the student document.

Impact of Oil and Physical Features on People in the Middle East Country Cards

Afghanistan A	Iraq A	Iran A
Afghanistan B	Iraq B	Iran B
Afghanistan C	Iraq C	Iran C
Afghanistan D	Iraq D	Iran D
Afghanistan E	Iraq E	Iran E

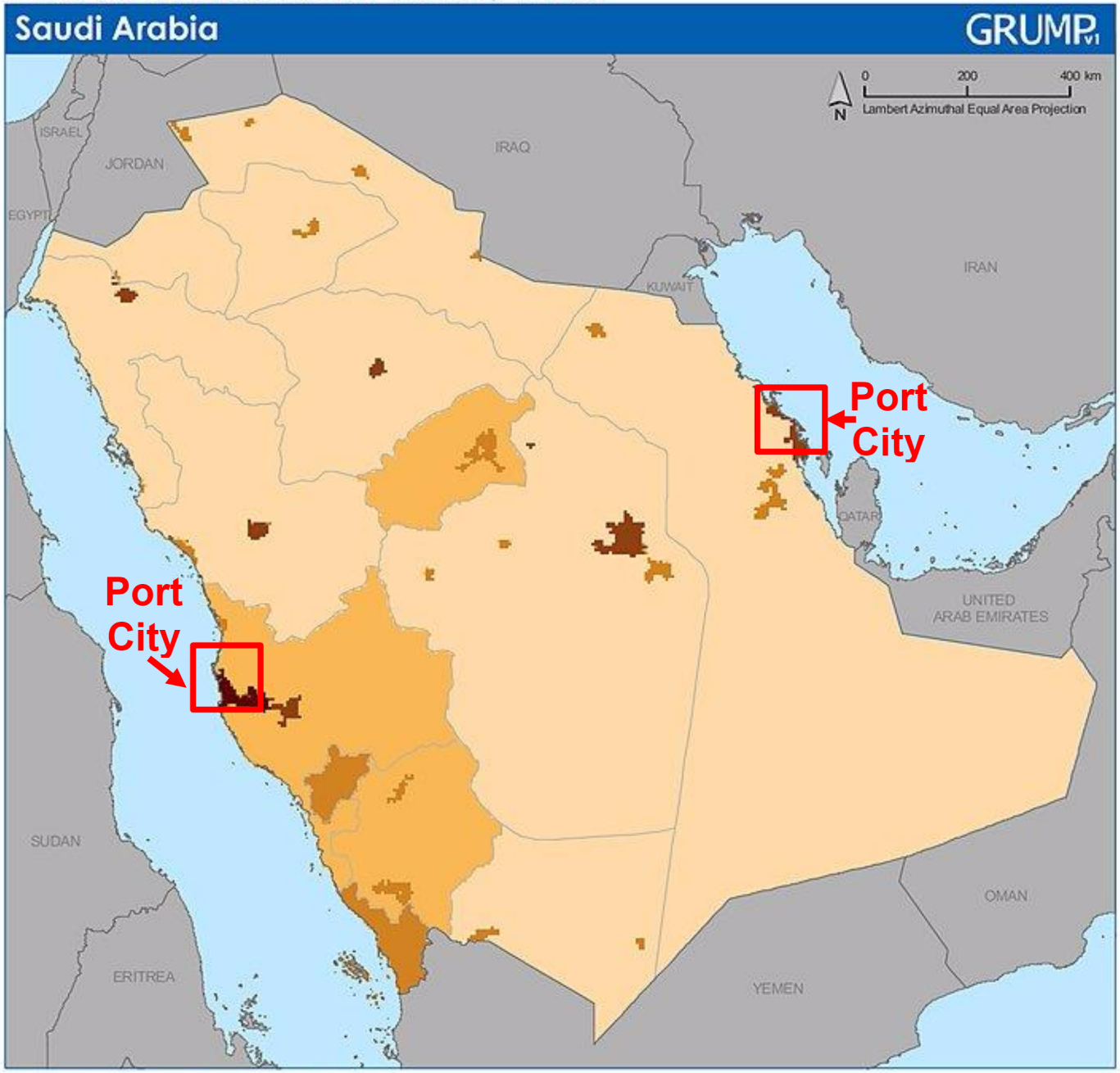
Afghanistan F	Iraq F	Iran F

Impact of Oil and Physical Features on People in the Middle East Country Cards

Israel A	Saudi Arabia A	Turkey A
Israel B	Saudi Arabia B	Turkey B
Israel C	Saudi Arabia C	Turkey C
Israel D	Saudi Arabia D	Turkey D
Israel E	Saudi Arabia E	Turkey E

Israel F	Saudi Arabia F	Turkey F

POPULATION DENSITY, 2000



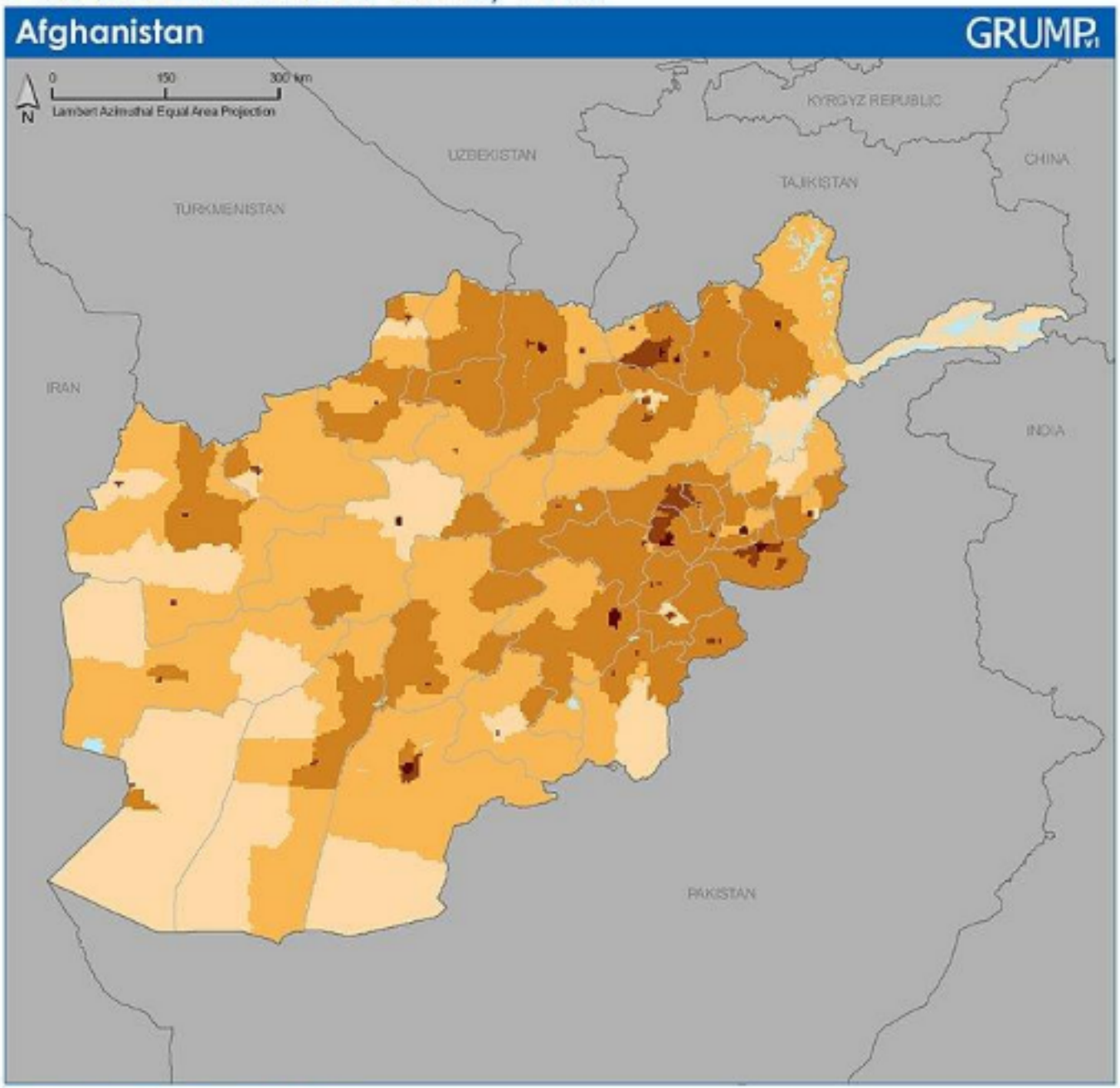
Global Rural–Urban Mapping Project

Persons per km²	Boundaries
0	Country
1 - 5	Admin. 1
6 - 25	

Population density measures the number of persons per square kilometer of land area. The data are gridded at a resolution of 30 arc-seconds.

http://sedac.ciesin.columbia.edu/data/set/grump-v1-population-density/maps/2?facets=region:asia

POPULATION DENSITY, 2000



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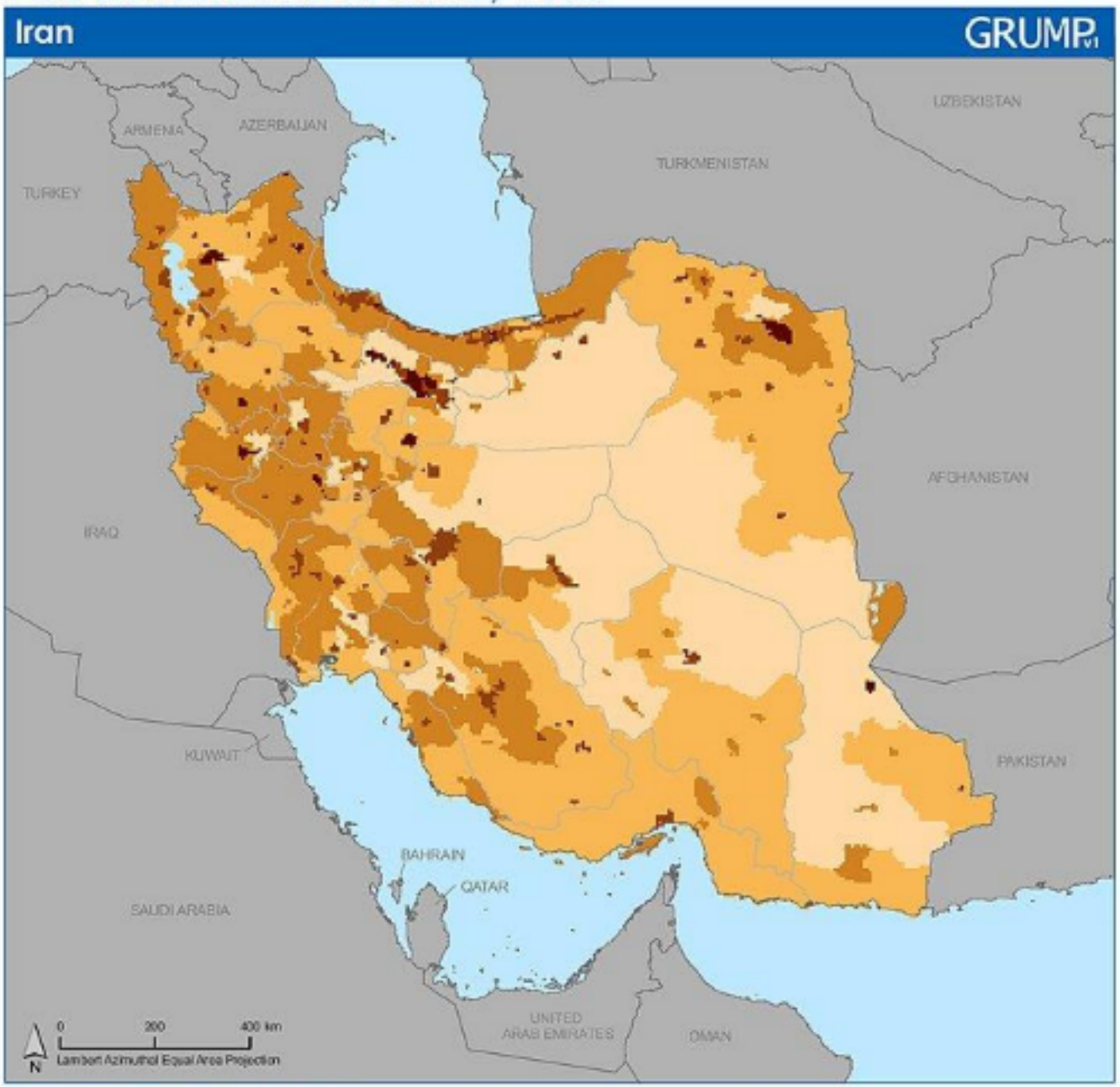

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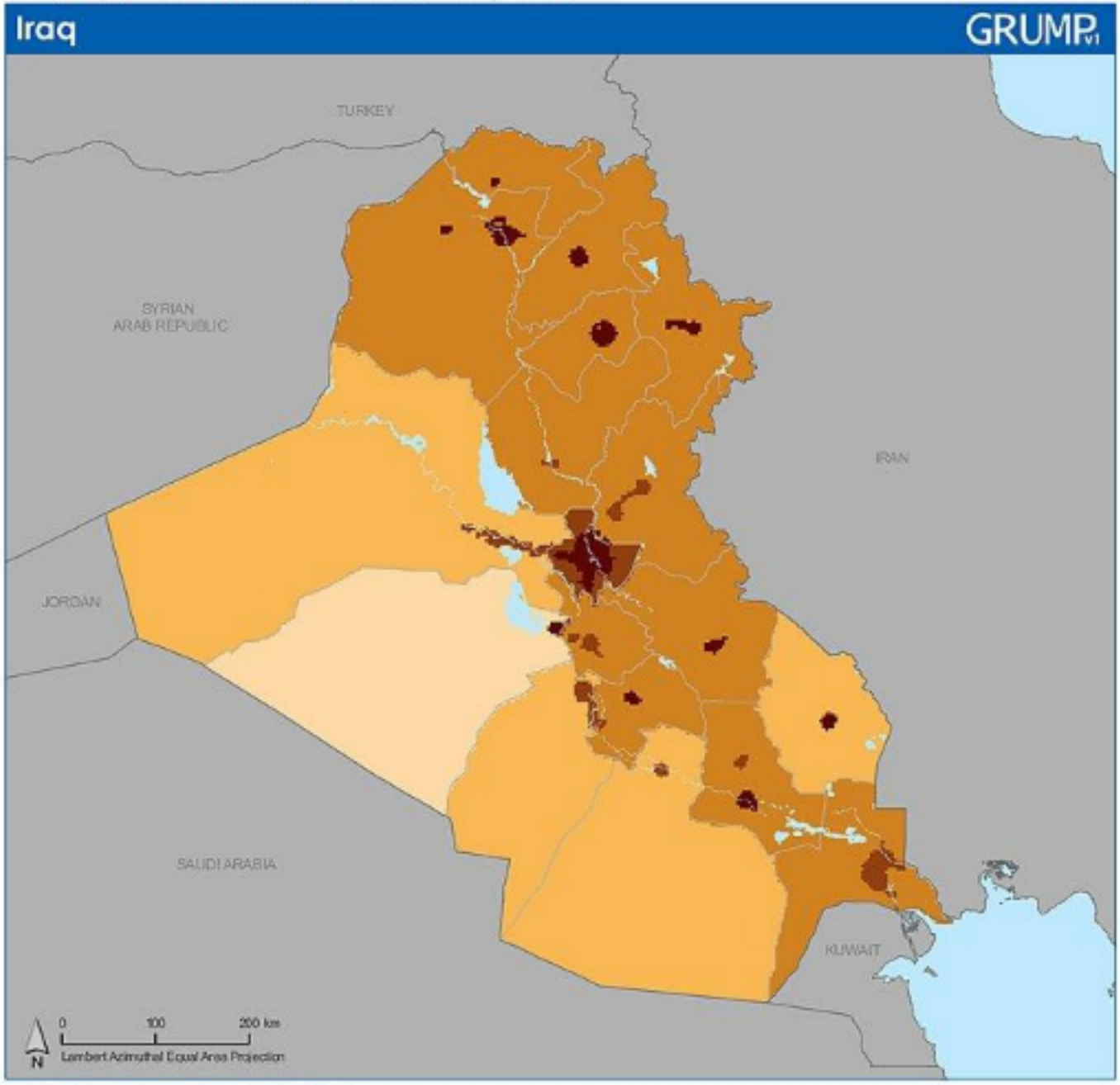

Global Rural-Urban Mapping Project

Persons per km²	Boundaries
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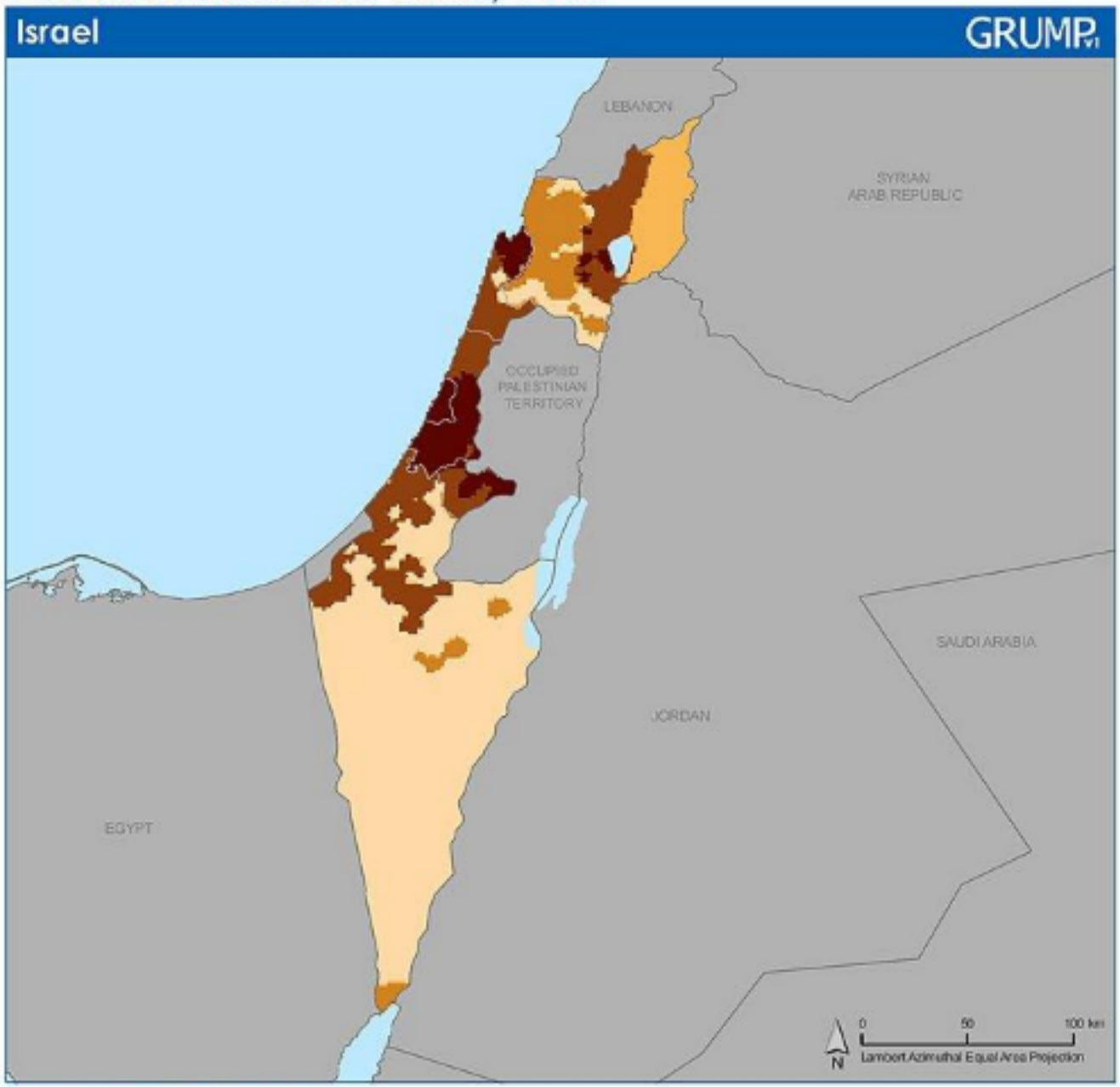

Global Rural-Urban Mapping Project

Persons per km²

- 0
- 1 - 5
- 6 - 25

Boundaries

- Country
- Admin. 1

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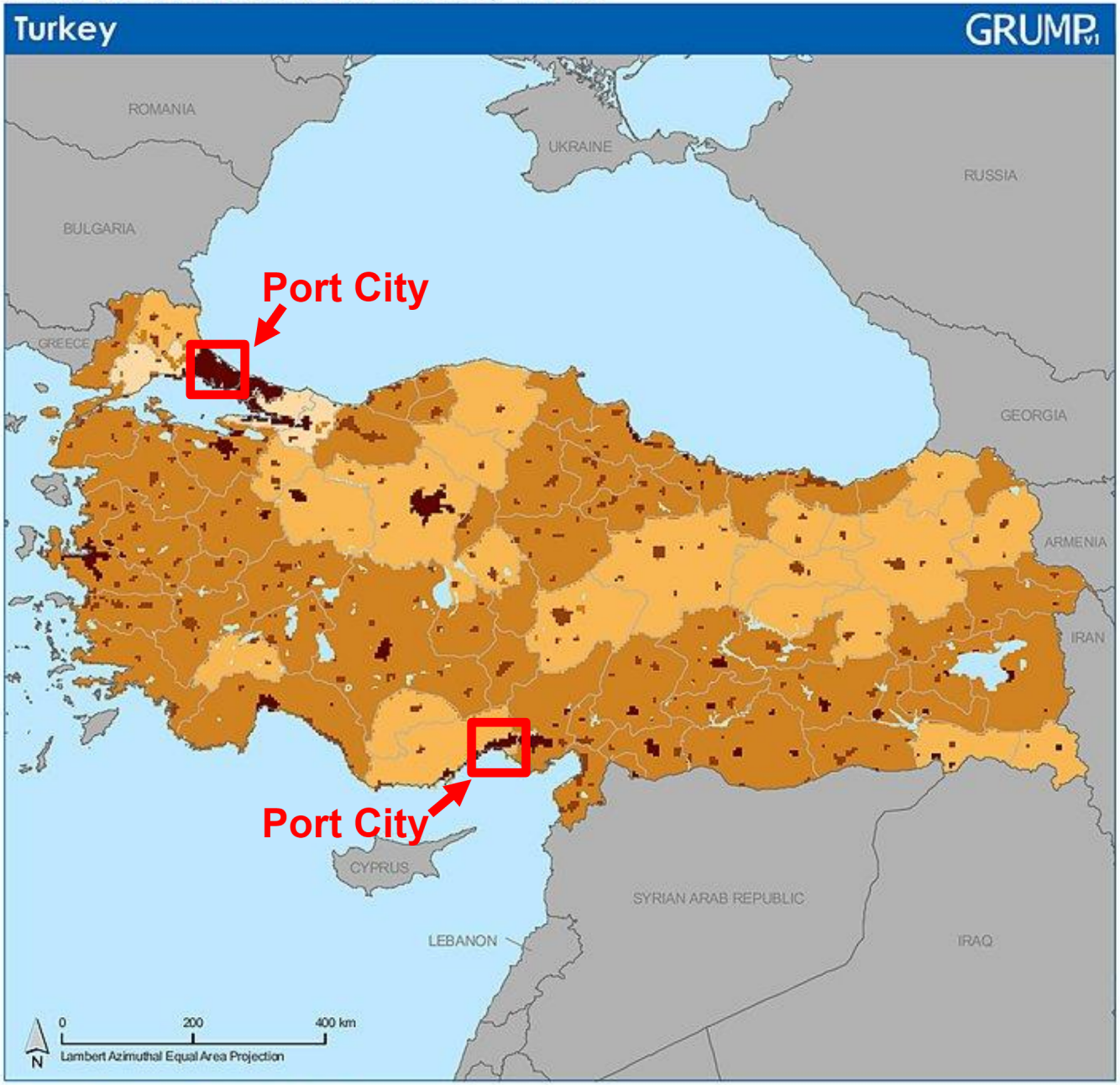

Global Rural-Urban Mapping Project

Persons per km²	Boundaries
0	Country
1 - 5	Admin. 1
6 - 25	

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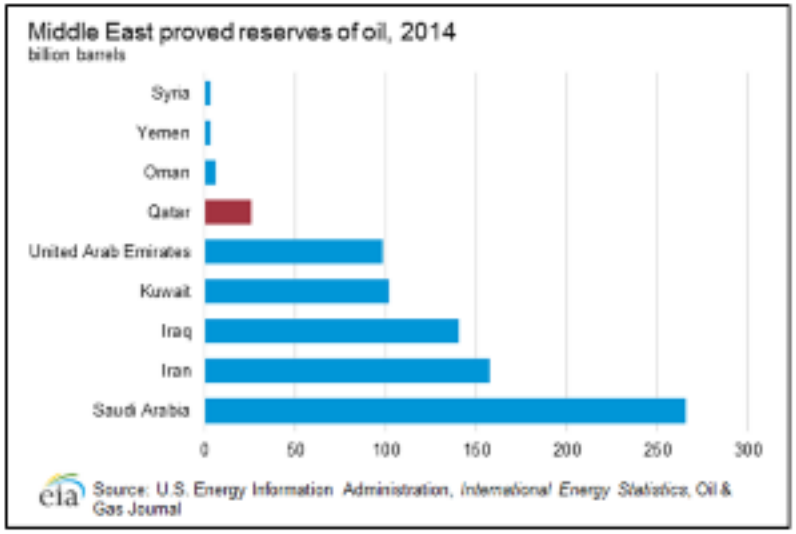
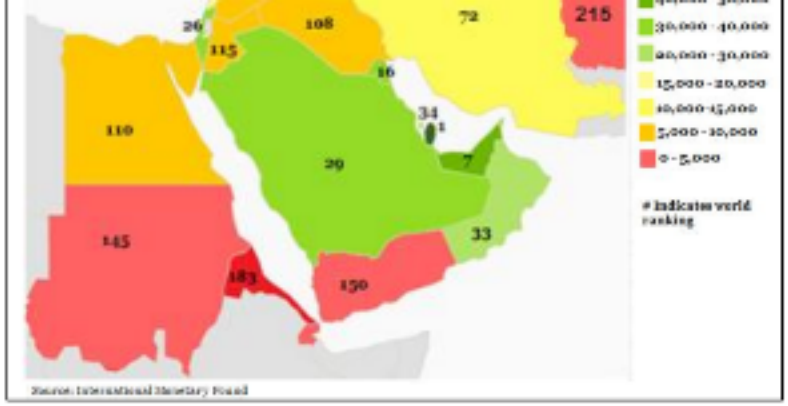
Oil in the Middle East

Country	Crude Oil Production bbl/day [barrels a day]	Crude Oil Exports bbl/day [barrels a day]
Afghanistan	1, 950	0
Iran	3,594,000	2.445 million
Iraq	2,979,000	2.39 million
Israel	5,839	0
Saudi Arabia	11,730,000	6.88 million
Turkey	56,650	0

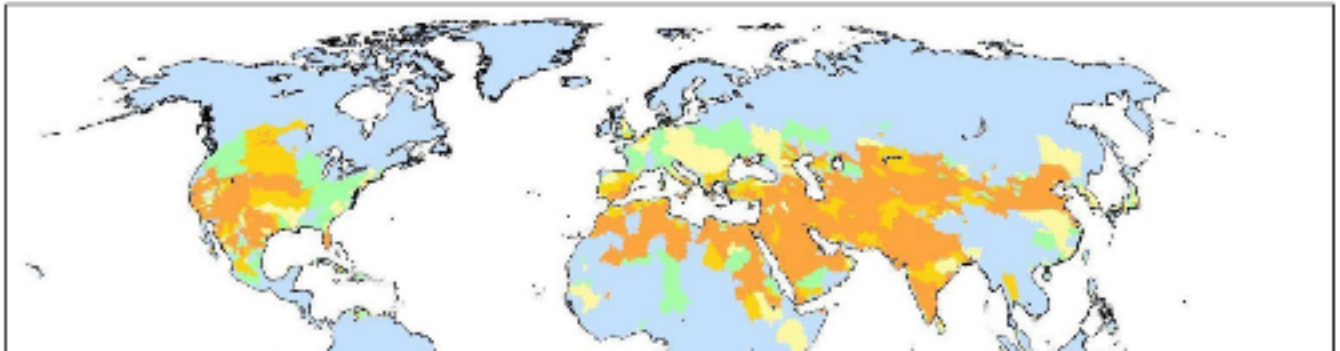


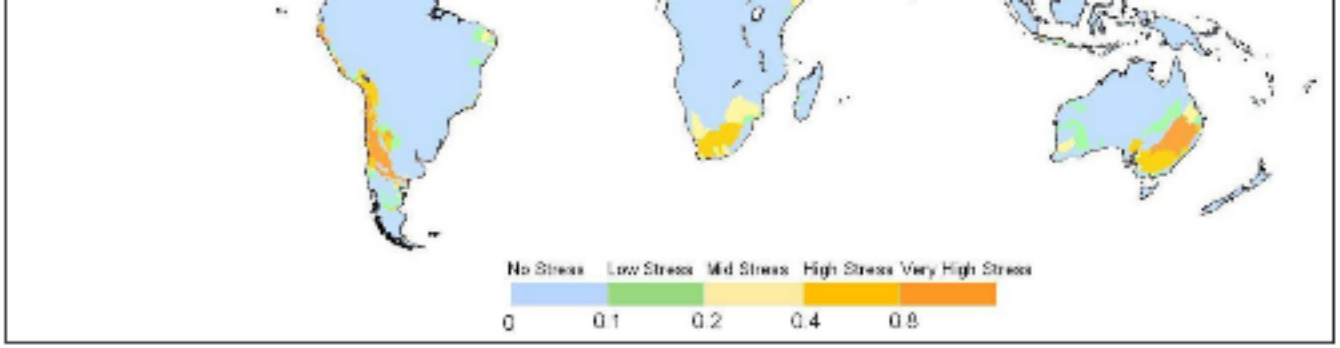
An oil refinery or petroleum refinery is an industrial process plant where crude oil is processed and refined into more useful products such as petroleum naphtha, gasoline, diesel fuel, asphalt base, heating oil, kerosene and liquefied petroleum gas.


26
108
72
215
115
16
34
1
110
29
7
33
145
183
150
$30,000 - 40,000
$20,000 - 30,000
$15,000 - 20,000
$10,000-15,000
$5,000 - 10,000
$0 - 5,000
# indicates world ranking

Water in the Middle East

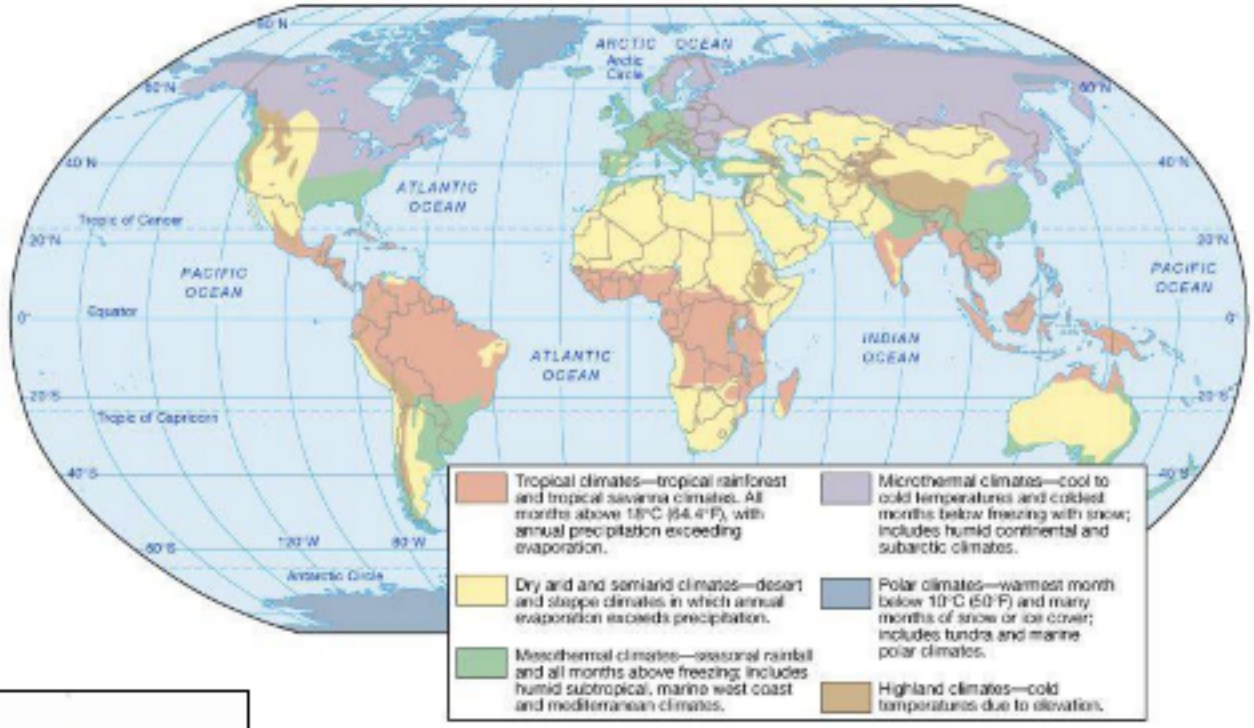
Aquifer: An underground layer of rock and sand that contains water.
Groundwater: water below the surface that supplies wells and springs.

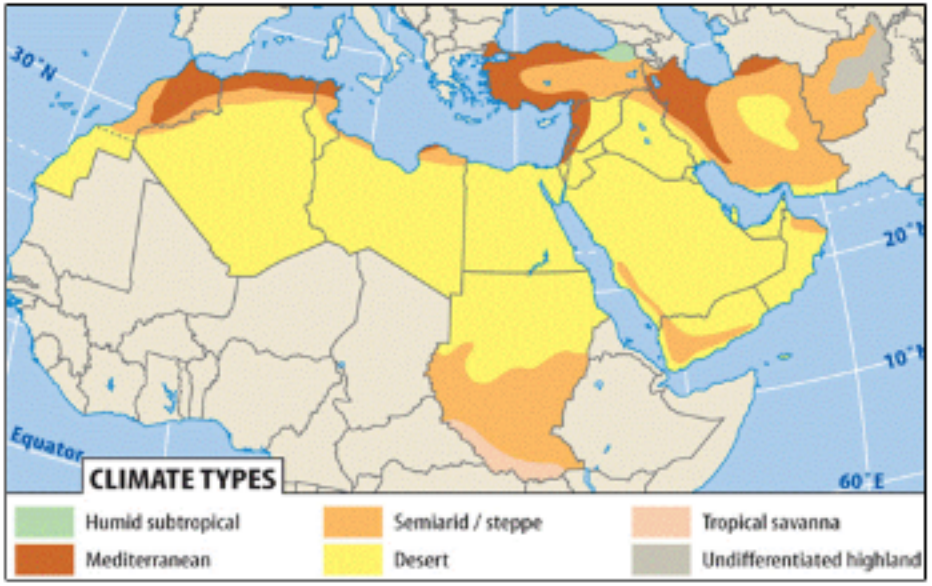



No Stress
Low Stress
Mid Stress
High Stress
Very High Stress
0
0.1
0.2
0.4
0.8

Climate in the Middle East

Country	Avg. Annual Precipitation
Afghanistan	327 mm
Iran	228 mm
Iraq	216 mm
Israel	435 mm
Saudi Arabia	59 mm
Turkey	593 mm
United States	715 mm

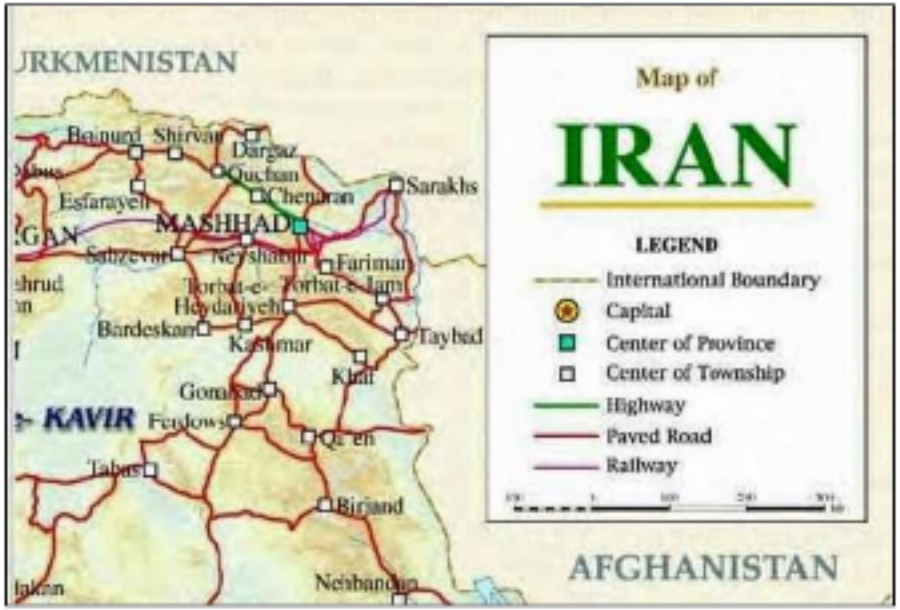




Transportation in Afghanistan

Transportation in Israel

Transportation in Iran



Transportation in Turkey

Transportation in Iraq

Transportation in Saudi Arabia

Impact of Oil and Physical Features on the Middle East Name_____ Date ____ Period __

Part I: Distribution of Oil in the Middle East

Look at the "Population Density" map of your country and the "Oil in the Middle East" document provided and answer the following questions:

1. Are there significant oil fields in your country? _____

2. Are there oil refineries in your country? _____

3. Compare the "Population Density" map of your country with the "Oil in the Middle East" document. Describe how the location of oil fields and/or refineries is related to the population density of your country. Why is there a connection? _____

_____

_____

_____

4. Look at the "GDP per Capita" map. How does the distribution of oil in the Middle East impact a country's GDP? _____

Part II: Water in the Middle East

Look at the "Population Density" map of your country and the "Water in the Middle East" document provided and answer the following questions:

5. Describe what you already know about the distribution of water in the Middle East.

_____

6. Where do the majority of people live in your country in relation to water? _____

_____

7. A port is a location on a coast or shore containing one or more harbors where ships can dock and transfer people or cargo to or from land. If your country's "Population Density" map has ports identified, describe how their location impacts the population density of your country.

_____

_____

Part III: Climate in the Middle East

Look at the "Population Density" map of your country and the "Climate in the Middle East" document provided and answer the following question.

8. Describe how the climate of your country impacts where people live.

8. Describe how the climate of your country impacts where people live. _____

_____

Part IV: Transportation in the Middle East

Look at the "Transportation" images for your country and answer the following question.

9. Describe the types of transportation used in your country. _____

Impact of Oil and Physical Features on the Middle East Name_____ Date ____ Period __

Part V: Bringing It All Together

10. Why do you think Iraq's GDP and world ranking is worse than some of the other countries even though it has oil? _____

11. After hearing about oil, water, climate, and transportation in other Middle East countries, write a summarizing sentence or two that explains the impact of oil and physical features on people in the Middle East.

_____

_____

_____

12. Based on the information that you learned about different countries in the Middle East, which one of the country's described would you prefer to live and why? (Your response should refer to oil, water, climate, and transportation).

_____

_____

_____