**Caribbean Case Study: ArcGIS Online (AGO) Activity**

1. Go to this link (copy and paste): <https://www.arcgis.com/home/webmap/viewer.html?webmap=8abb190866d741ffb03999fcf60f4cbb&amp;extent=-93.955,-1.7563,-48.4717,29.956>
2. Sign into your AGO account

Here you will see layers for countries in CARICOM. A table with the description of the data layers and associated variables is located below. These layers provide an exploration of issues around the topic of food insecurity, such as demographics, health (obesity), and changing agriculture over time.

1. Explore the data sets.
   1. Look at the tables for each data set. You can click on a column heading to arrange in descending or ascending values.
   2. Change the color of the style for GDP. Display in a graduated color using natural breaks with 4 classes. You can use a different classification method such as
   3. Change the transparency of the top layer so that you can see what is below to identify possible relationships between layers.
   4. Move the order of the data layers in the table of contents to the left. Also, you can turn layers on or off the check mark next to the layer name.
   5. Use the filter function to find those countries with obesity over 25%.
   6. Use the filter function to find those countries with GDP less than $10,000.
2. After you get familiar with the data sets, see if you see any patterns within one data set, such as GDP or obesity. Then, look at patterns between data sets.
   1. As an example, examine the countries of Guyana, Suriname, and Trinidad and Tobago. How do their GDPs compare? Which has the highest? The lowest?
   2. Next, look at the obesity layer of the same 3 countries. As with GDP, which has the highest rate of obesity? Which has the lowest?
   3. Then compare the patterns of obesity and GDP between the countries. Is a pattern emerging? If so, look at the other countries to see if it is similar or not. Do you see similar or opposite trends between obesity and GDP?
3. Now you are ready to conduct similar or new types of spatial analyses on your own. Some possibilities include creating choropleth maps of agriculture, industry and service, changes in agriculture land etc.
4. After conducting your analyses and creating maps, compare your results with your readings (Unit 4). How do your maps support the qualitative data from these materials?
5. For your presentation, you can do screen captures of the maps you create in AGO and bring these into PowerPoint.
6. Discuss how the spatial analysis and the maps provide information on food insecurity in the Caribbean.
7. If you would like to search for additional data sets, go to the dropdown arrow by Add and select Search for Layers. In the new window that appears, type in key words to use in your search in Find and chose My Organization for In. Examine the list of possibilities that appears in the Results Found. Click on Add by the data set you would like. When you have finished selecting your new data sets, click on Done Adding Layers at the bottom.

**Caribbean Food Security Data key**

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| --- | --- | --- | --- | --- |
| **File Name** | **Objects** | **Variable name** | **Description** | **Source** |
| CARICOM;  Alias Name: Economic and Social Indicators | polygon | ISO | International short country name | http://www.diva-gis.org/gdata |
|  |  | NAME\_ENGLI | English spelling of country name | http://www.diva-gis.org/gdata |
|  |  | POP2000 | Population in 2000 | http://www.diva-gis.org/gdata |
|  |  | SQKM | Area of country in square kilometers | http://www.diva-gis.org/gdata |
|  |  | POP\_2015 | Population in 2015 | https://www.cia.gov/library/publications/resources/the-world-factbook/ |
|  |  | GDP\_2014 | Gross Domestic Product/Purchasing Power Parity in 2014 | https://www.cia.gov/library/publications/resources/the-world-factbook/ |
|  |  | OBESITY | Obesity adult prevalence rate 2014 percentage | https://www.cia.gov/library/publications/resources/the-world-factbook/ |
|  |  | CHILD\_UW | Child under the age of 5 underweight percentage 2009-2014 | https://www.cia.gov/library/publications/resources/the-world-factbook/ |
| Carib GDP  Alias: Economic Sectors | polygon | ISO | International short country name | http://www.diva-gis.org/gdata |
|  |  | NAME\_ENGLI | English spelling of country name | http://www.diva-gis.org/gdata |
|  |  | POP2000 | Population in 2000 | http://www.diva-gis.org/gdata |
|  |  | SQKM | Area of country in square kilometers | http://www.diva-gis.org/gdata |
|  |  | Agriculture | Comparative contribution to GDP in CARICOM (percentage) | CIA World Factbook 2012; Beckford and Campbell 2013 |
|  |  | Industry | Comparative contribution to GDP in CARICOM (percentage) | CIA World Factbook 2012; Beckford and Campbell 2013 |
|  |  | Services | Comparative contribution to GDP in CARICOM (percentage) | CIA World Factbook 2012; Beckford and Campbell 2013 |
| Carib AG  Alias Name: Change in Agricultural Land | polygon | ISO | International short country name | http://www.diva-gis.org/gdata |
|  |  | NAME\_ENGLI | English spelling of country name | http://www.diva-gis.org/gdata |
|  |  | POP2000 | Population in 2000 | http://www.diva-gis.org/gdata |
|  |  | SQKM | Area of country in square kilometers | http://www.diva-gis.org/gdata |
|  |  | AGRI\_1961 | Agricultural land in production, 1961 | Potter et. al 2004, World Bank 2010 and Beckford and Campbell 2013 |
|  |  | AGRI\_1981 | Agricultural land in production, 1981 | Potter et. al 2004, World Bank 2010 and Beckford and Campbell 2013 |
|  |  | AGRI\_2000 | Agricultural land in production, 2000 | Potter et. al 2004, World Bank 2010 and Beckford and Campbell 2013 |
|  |  | AGRI\_2009 | Agricultural land in production, 2009 | Potter et. al 2004, World Bank 2010 and Beckford and Campbell 2013 |