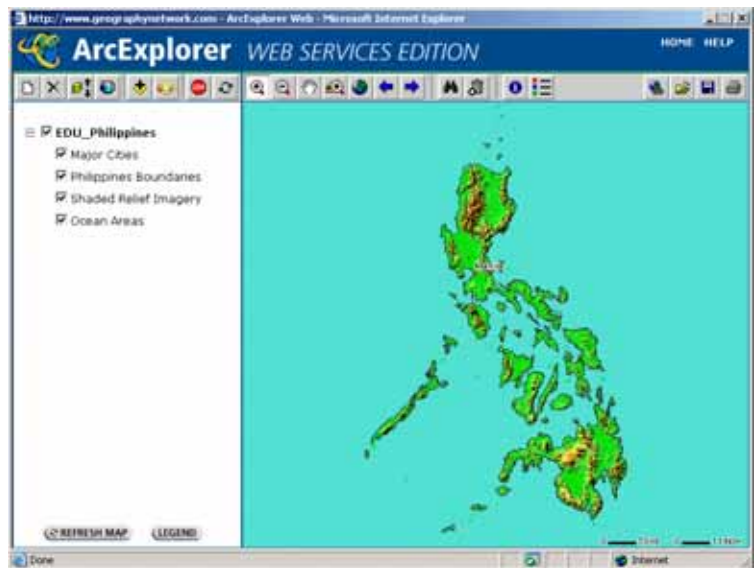


Examining the Physical and Cultural Geography of the Philippines using the Geography Network

Your Name: _____

Summary

In this lesson, you will explore the physical and cultural geography of the Philippines using an online web-mapping/GIS service called the Geography Network and an application called ArcExplorer Web. You will analyze the road network, rivers, land use, landforms, natural hazards, vegetation, precipitation, and temperature of the Philippines, with a focus on the island of Mindanao.



Software

Internet Browser

One of the Philippines maps created and analyzed by students in this lesson.

Introduction: The Geography Network

The Geography Network, maintained by ESRI, is a global network of geographic information users and providers. Through the Geography Network, you can access many types of geographic content including dynamic maps, downloadable data, and more advanced Web services. You will be using GIS (Geographic Information Systems) over the Internet, all from a web browser.

Launch Your Investigation

Access a web browser and open the Geography Network:

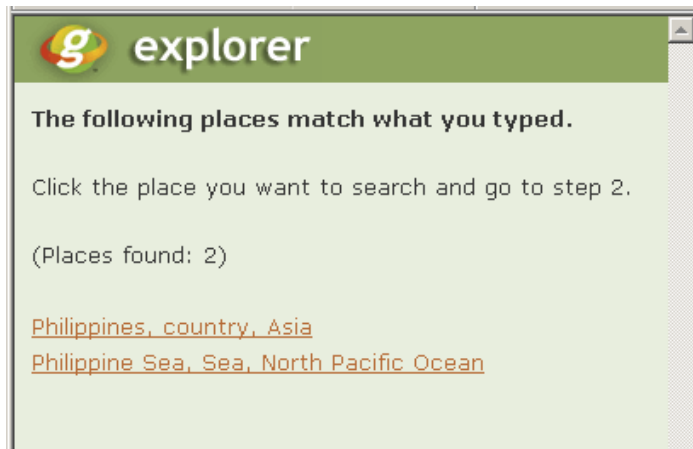
<http://www.geographynetwork.com>.

Under 1—Type place name, enter Philippines, and press “Go,” as follows:



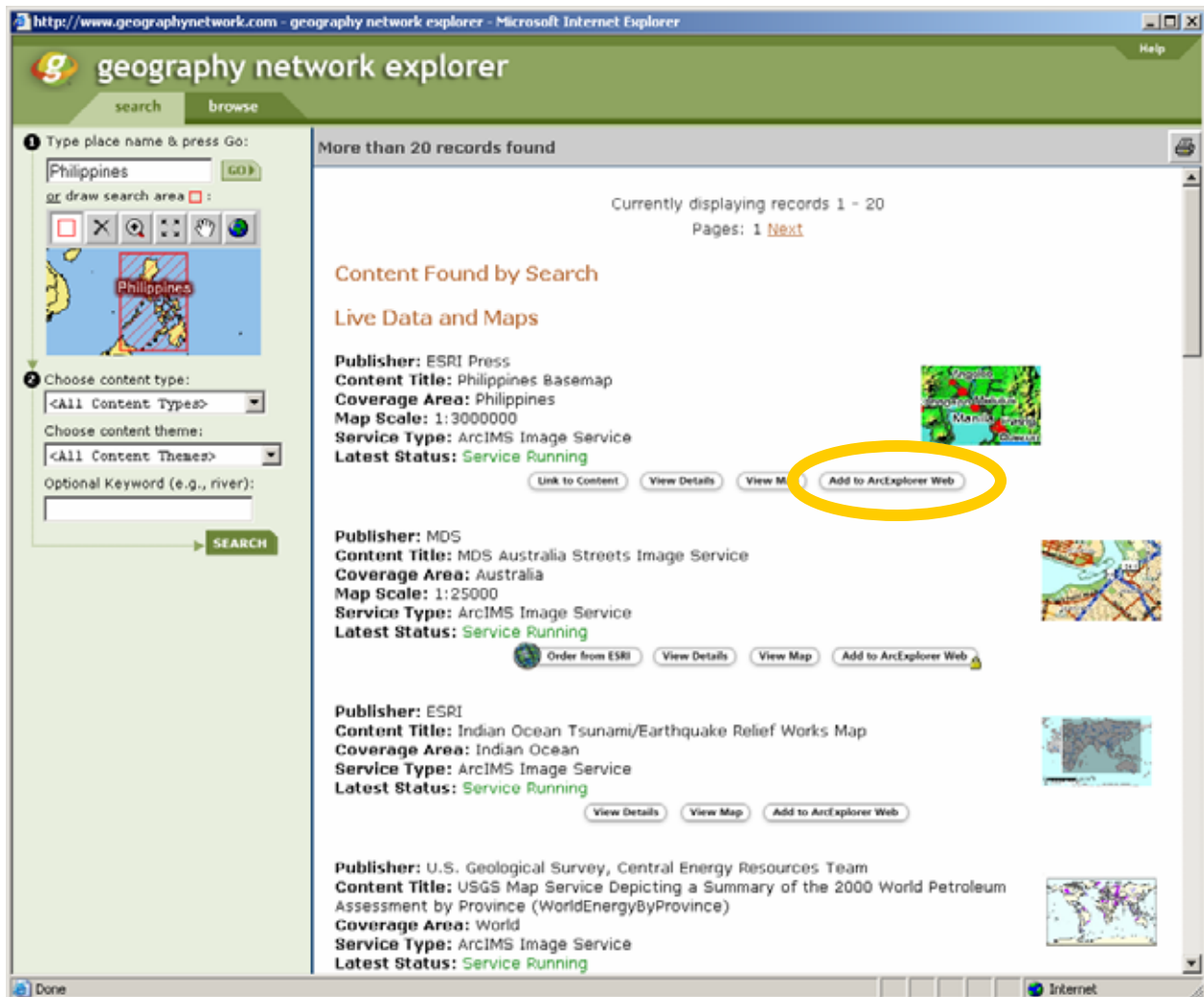


On the next screen, select “Philippines, country, Asia”, and continue:



On the results window displaying the content found, under “Philippines Base map”, select “Add to ArcExplorer Web.”







You should now be looking at a base map of the Philippines.

- 1) How would you describe the topography (landforms) of the Philippines?
- 2) How many islands would you estimate make up the Philippines?


Do some further investigations to find out exactly how many islands make up the Philippines.

- 3) How many islands did you discover make up the Philippines?
- 4) Why can you not see every one of these islands on your Philippines base map?



The concept of map scale is fundamental to learning through maps. We cannot show everything, even on the most detailed map possible. However, zoom in  on a section of the Philippines, and you will notice that the number of data layers changes. You should be able to identify roadways, rivers, and additional cities besides the capital city. If you zoom to a location inadvertently, you can always zoom to the Philippines by using the zoom to the full extent of your data  tool.

5) Describe how the physical topography of the Philippines affects the placement of the major roadways.

Use Find  and enter "Davao." Then, select Davao, Southern Mindanao. Zoom out a bit so you can see all of the island of Mindanao.

6) Describe the physical setting of Davao.

7) Based on the topography of Mindanao, where would you expect most people to live? Why?

Back on your results window, scroll down to find "World Landuse zones." Add these to ArcExplorer web.

In your ArcExplorer Web window, turn on the ESRI_Landuse layer, and turn off the Edu_Philippines layer so you can better view the ESRI Landuse layer. Select the "Legend" button.

8) Describe the spatial pattern land use of Mindanao island.

9) How is the land use affected by the topography? Why?

Back on your results window, scroll down to find "World Precipitation zones." Add these to ArcExplorer web. In your ArcExplorer Web window, turn on the precipitation layer and turn off the other layers. View the Legend.

10) Describe the spatial pattern of precipitation of Mindanao island.

11) In what units are the precipitation values given?

12) How is precipitation affected by topography? Why?

Add natural hazards to your list of map layers.

13) Describe the spatial pattern of natural hazards of Mindanao island.

14) What is the most common type of natural hazard on the island?



Add world vegetation to your list of map layers.

15) Describe the spatial pattern of vegetation of Mindanao island.

16) How is vegetation different from land use?

On the results screen, go to the next group of 20 web mapping services and select World Temperature Zones. This is the average annual temperature.

17) Describe the spatial pattern of temperature of Mindanao island.

18) Based on what you have observed thus far about the physical and cultural geography of the Philippines, where in the Philippines would you most like to live? Why?

Zoom out so that you are looking at all of southeast Asia.

19) How is annual temperature in the Philippines the same or different from other countries in the region, such as China, Papua New Guinea, and Indonesia?

Turn off temperature and turn on the precipitation, still while looking at all of southeast Asia. You can collapse the legends by clicking on the – signs to the left of the group layer name.

20) How is annual precipitation in the Philippines the same or different from other countries in the region, such as China, Papua New Guinea, and Indonesia?

21) Describe what you have learned about the Geography Network and about digital maps in this lesson.

22) Describe what you have learned in this lesson about the physical and cultural geography of the Philippines. Present your findings to the class in a 5 minute presentation, illustrated by the maps that you have created.

