# Exercise 1: Exploring QGIS

This exercise will introduce you to QGIS and some of the basic functions of the program. By the end of this exercise you should be able to:

- Open a current QGIS file
- Set up the layout of your QGIS file
- Zoom, move, and navigate a map
- Turn layers on and off

**Section 1: Start QGIS**

1. If you have a shortcut for QGIS on your desktop, ![icon], double click it to start QGIS. Otherwise, click

   *Start>Programs>Quantum GIS Lisboa>Quantum GIS Desktop(1.8.0)*

   **Note**: Make sure that you open Quantum GIS Desktop, not the similarly titled Quantum GIS Browser.
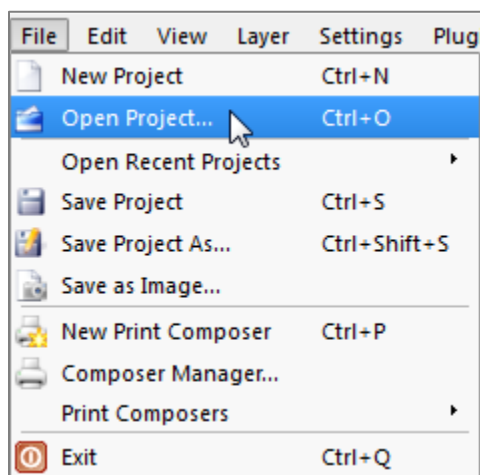
You are now looking at the interface of the QGIS application.

Whenever you work in QGIS Desktop, you are working with a map document. This document can contain various layers, which are populated by spatial datasets. A QGIS map document has a *.**qgs** file extension.
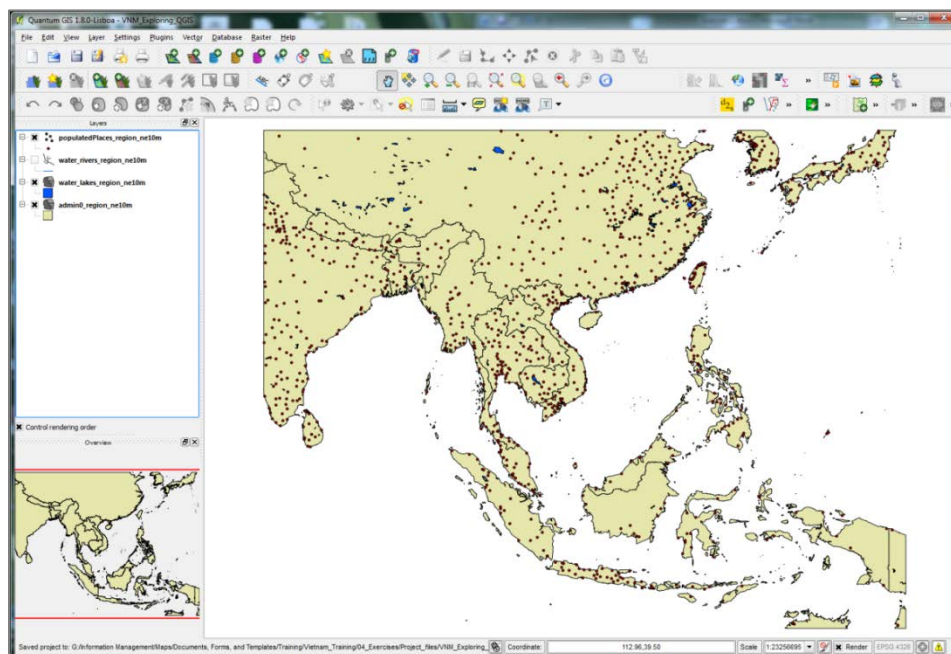
**Section 2: Open a .qgis File**

A map document was created for this exercise. You will use this file to examine some of the features of QGIS.

1. Click *File>Open Project…*



2. Navigate to the //Vietnam_Training/04_Exercises/Project_files folder and locate *VNM_Exploring_QGIS.qgs* to open and display the map.

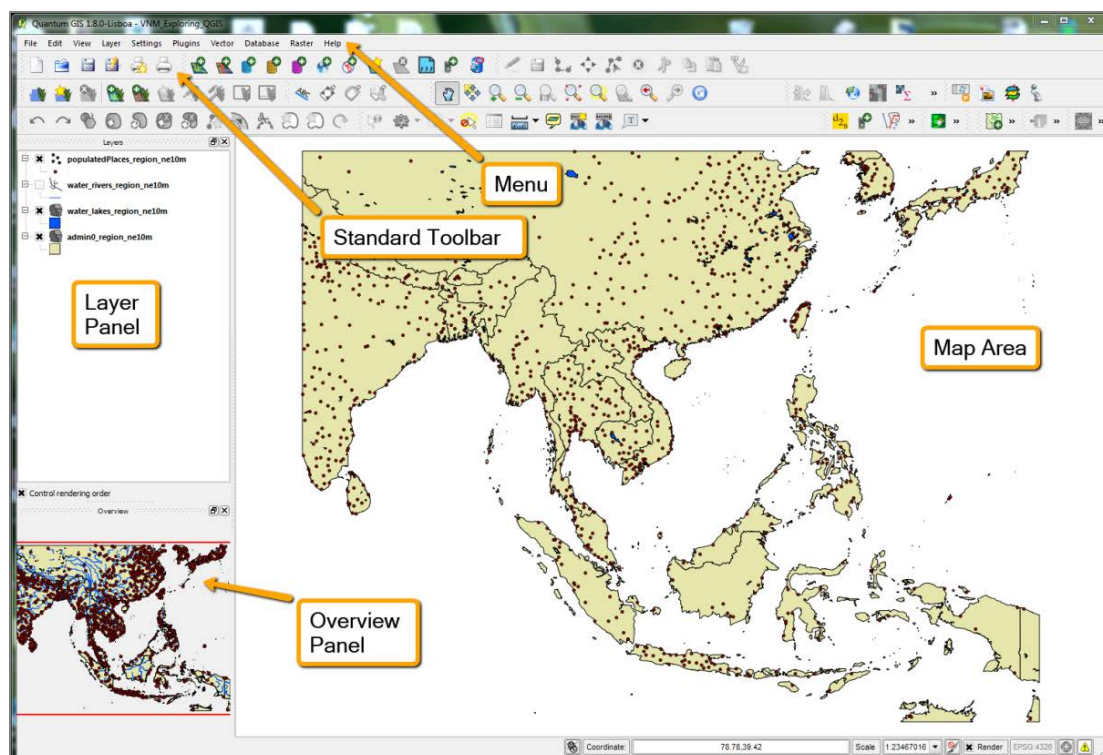3. Double click *Exploring_QGIS.qgs* to open and display the map.

When the *VNM_Exploring_QGIS.qgs* opens, you will see an image depicting the region with the location of various countries. It should look similar to the following example.
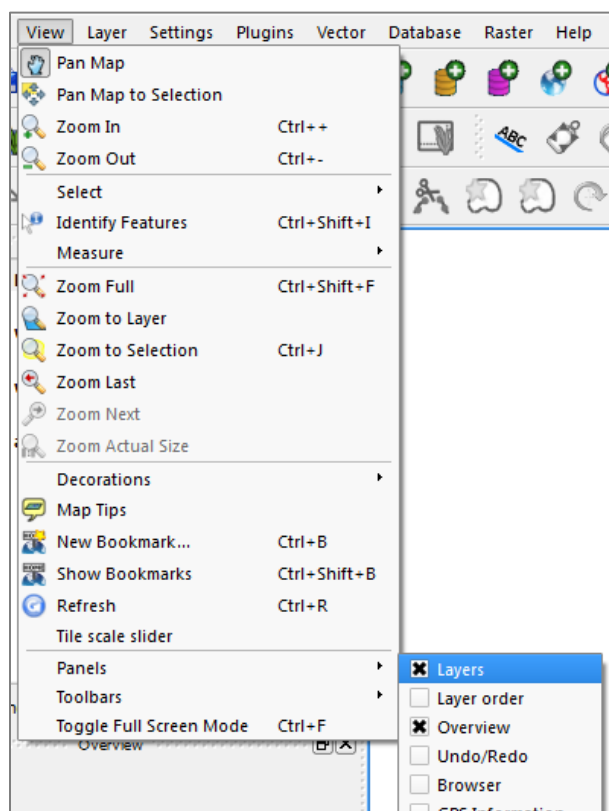


**Note**: Your screen might show this in a different size and with the toolbars in different locations. If you are using a different version of QGIS, you might see a warning about project compatibility.

**Section 3: Setting Up Your QGIS Layout**

The image below shows the individual pieces of the user interface in QGIS. Your QGIS window may look different depending on your settings. This section will teach you how to adjust your layout settings.

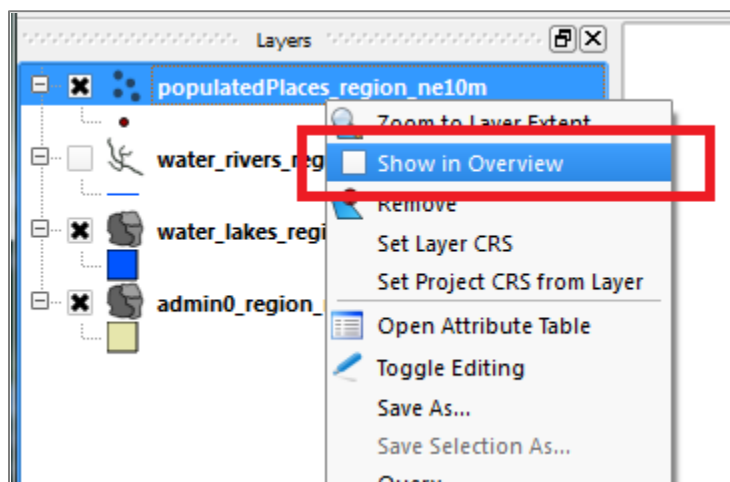1. Click *View>Panels* in the menu.



2. Uncheck the box next to layers.

3. Click *View>Panels* in the menu.

4. Uncheck the box next to *Overvie*w.

What does your QGIS window look like now?

5. Turn the *Layers* and *Overview* on by checking the boxes in the *View>Panels* menu

6. Right click on the populatedPlaces_region_ne10m layer and check the box next to *Show in Overview* to add the layer
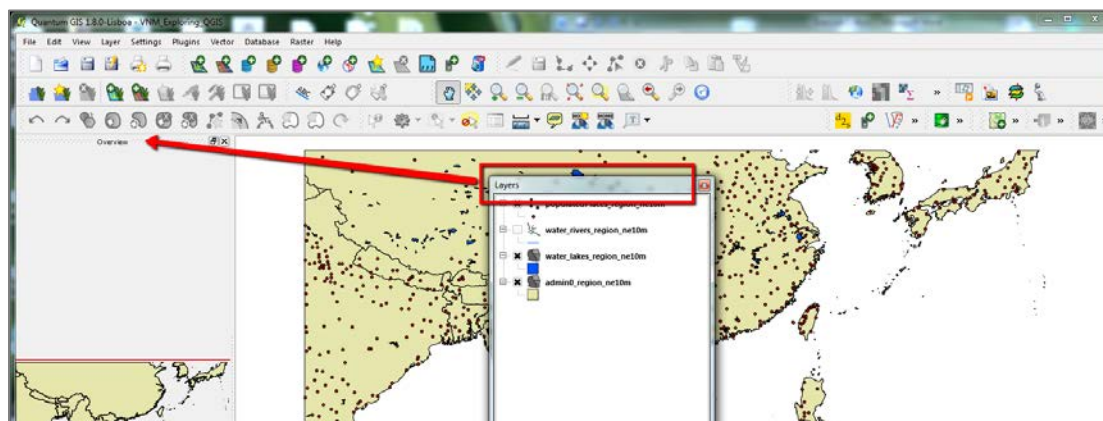   to the *Overview Panel.*



QGIS allows you to dock panels on the side of your screen so you have easy access to them. Now you will practice
docking and undocking the Layer Panel.

7. Click on the word *Layers* or on the small grey dots at the top of the *Layer Panel*
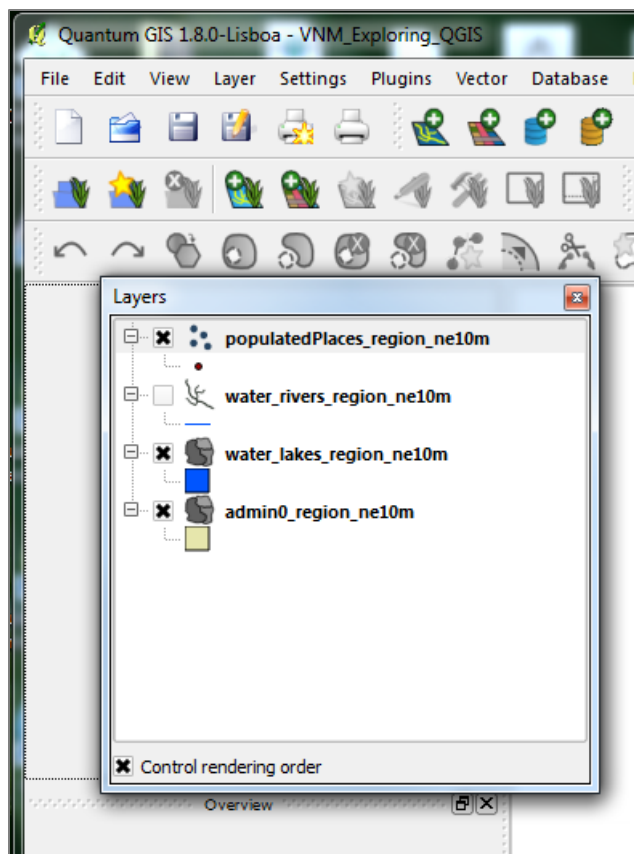
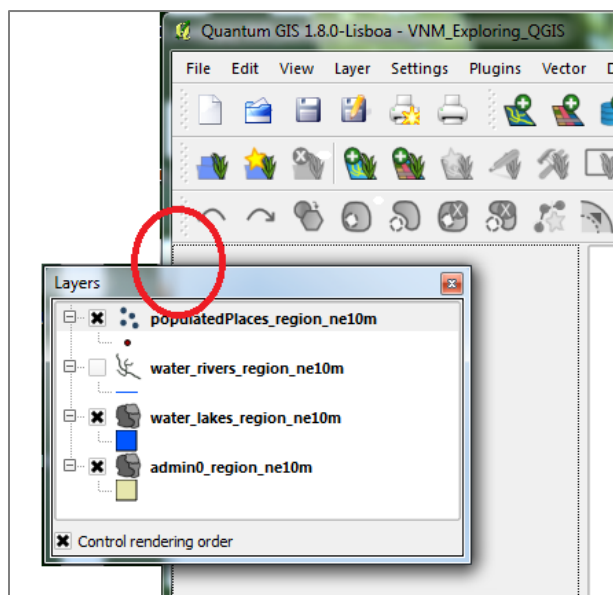 and drag the panel to the middle of your screen to undock it.

8. Re-dock the *Layer Panel* by clicking on the top of the *Layers Panel* and dragging the top of the *Layers Panel* to the
   top of the *Overview Panel.*



9. Release your mouse button when you see the *Overview Panel* move down the screen and the grey dots will appear
   indicating where the *Layers Panel* will dock, as in this image:

**Note**: If you want to dock the *Layer Panel* when there are no other panels open, click on the top of the *Layer Panel* window and drag it to the left wall of your map area. When the grey dotted outline appears, indicating where the *Layers Panel* will dock, you may release the mouse button.

**Section 4: Introduction to the Standard Toolbar**

The previous section showed you how to adjust your QGIS layout. In this section, you will zoom in and out, move, and navigate the map using the standard toolbar.

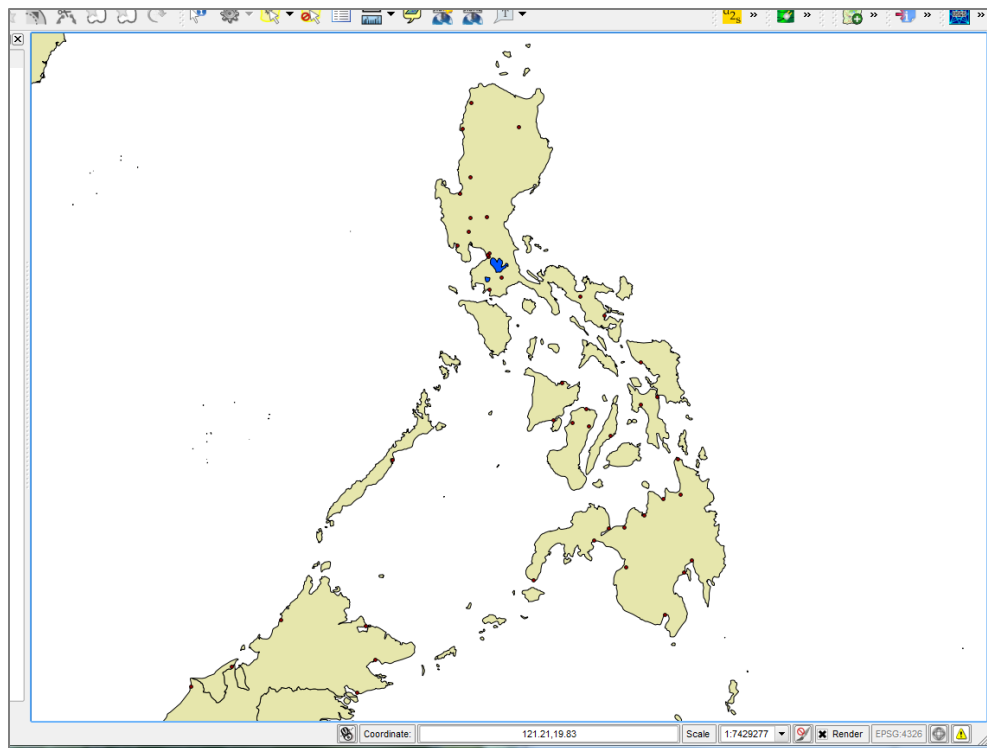1. Click the *Zoom In* button on the standard toolbar.

    **Note**: The toolbar that is currently selected will appear with a different color background on the toolbar. After you select the *Zoom In* mode it should look like this:

2. Position the magnifying glass pointed to the upper left of a country of your choice.
3. Click and hold the left mouse button while dragging your mouse to near bottom right of a country of your choice, making a rectangle around the two points.
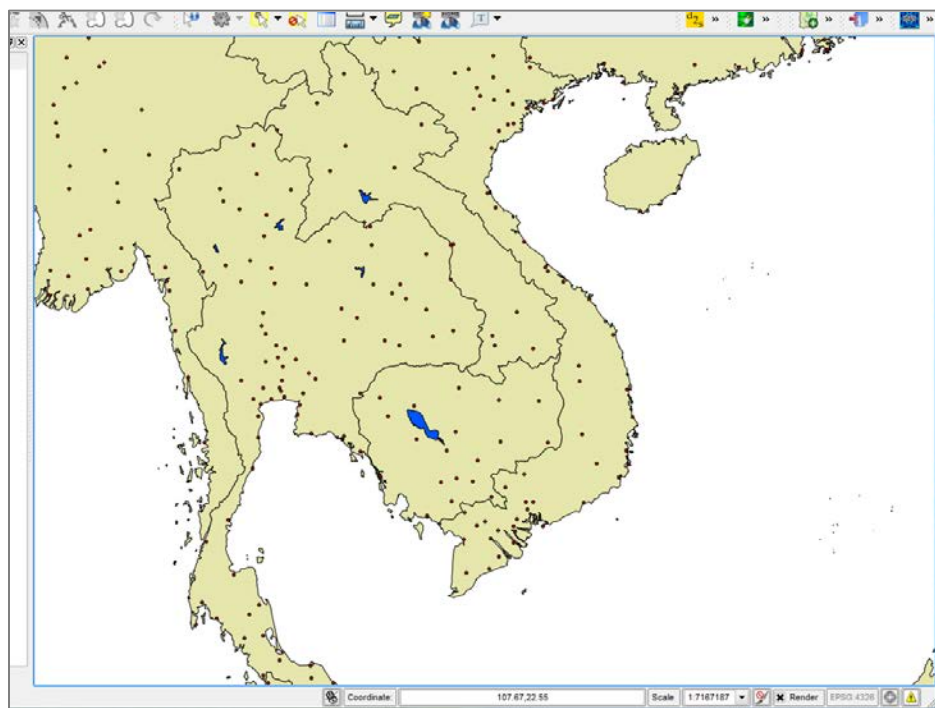4. Release the mouse.

Now you will see a closer view of the country you chose.

5. To return to the previous view click the *Zoom Last* button. This will take you back to the previous zoom level that shows the entire region.
6. Again, use the *Zoom In* tool to zoom in on the Philippines. You should now the Philippines in the center of the map.

7. Click the *Pan Map* ![hand icon] button on the standard toolbar

8. Move the cursor hand to the left side of your map area

9. Click and hold the left mouse button while moving the map right so that Vietnam is centered on your map

10. Release the mouse button

You will see that the map has been repositioned. You should now see Vietnam in the center of the map.



11. To return to the whole view of the region, click the *Zoom Full* ![zoom icon] button

> **Note**: The *Zoom Full* ![zoom icon] and the *Zoom to Layer* ![zoom icon] button in this example would give us very similar results. However, this will not always be the case. The *Zoom to Layer* button will redraw the map zooming to whichever layer is highlighted in the *Layer Panel*.

**Section 5: Introduction to the Layer Panel**

The previous section showed you how to zoom in and out, move, and navigate your map. In this section you will learn to turn a layer on or off using the *Layer Panel*.

> **Note**: The *Layer Panel* is also called the *Table of Contents (TOC)*.

The *Layer Panel* in QGIS shows you the layers of data that are available to be shown on your map. Think of layers as pieces of data that can be added one on top of the other and displayed together.

In the *Layers Panel* there are currently 4 names: *populatedPlaces_region_ne10m, water_rivers_region_10m, water_lakes_region_ne10m,* and *admin0_region_ne10m* layers.
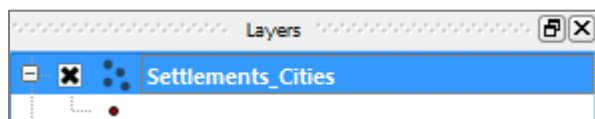
1. In the *Layer Panel*, uncheck the : *populatedPlaces_region_ne10m* check box

   The red dots on the map that show cities will disappear

2. In the *Layer Panel*, check the *water_rivers_region_10m* check box

Now you will see blue lines on your map that show rivers

3. In the *Layer Panel* check the *populatedPlaces_region_ne10m* check box so that the cities are shown again

4. Click the *populatedPlaces_region_ne10m* name so that it is highlighted in blue



5. Click and hold the left mouse button while dragging that layer to the bottom of the *Layer Panel* below the other layers

Now, the order of the layers from top to bottom is: *water_rivers_region_10m, water_lakes_region_ne10m, admin0_region_ne10, populatedPlaces_region_ne10m*

> **Note**: When organizing layers in your map, think about ordering it with the smallest size or area on top.

**Optional Steps:**

Try to perform some of the following steps while exploring the functionality of QGIS

1. Turn on and off the Rivers and Lakes layers in the panel

2. Move *water_lakes_region_ne10m* to the bottom of the layers panel, then move it back above *admin0_region_ne10*

3. Zoom the map so that you see a country of your choice in detail

4. Change the color of *admin0_region_ne10* to green

5. Select a bordering country and zoom to the selected feature

6. Zoom the capital city and create a new *Bookmark*. Zoom to full extent and then zoom to the capital city *Bookmark*.

7. Add a layer to the *Overview Panel*

**Exit QGIS without saving.**

# End Exercise.

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