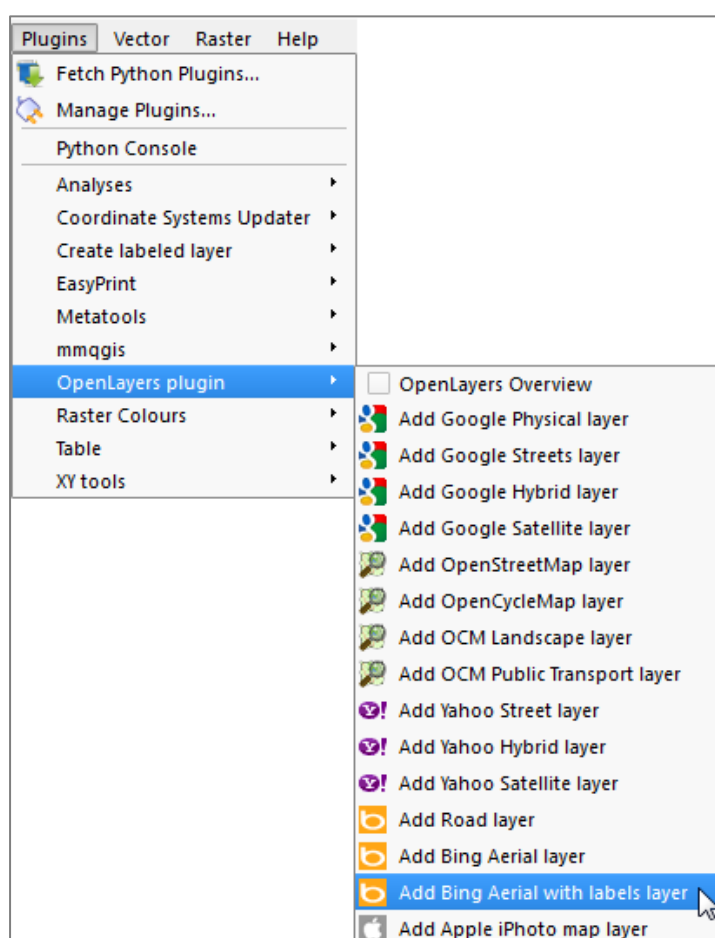


## Exercise Supplement: Adding Basemaps

This exercise will teach you how to add aerial imagery to QGIS. When making a map, it is sometimes easier to use a pre-made basemap. Depending on the map, you may use aerial imagery (with or without labels), a street map, or a hybrid of the two. In this exercise you will learn how to add aerial imagery basemaps from Bing and open street maps.

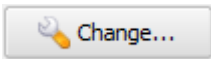

### Section 1: Adding vector data and a basemap

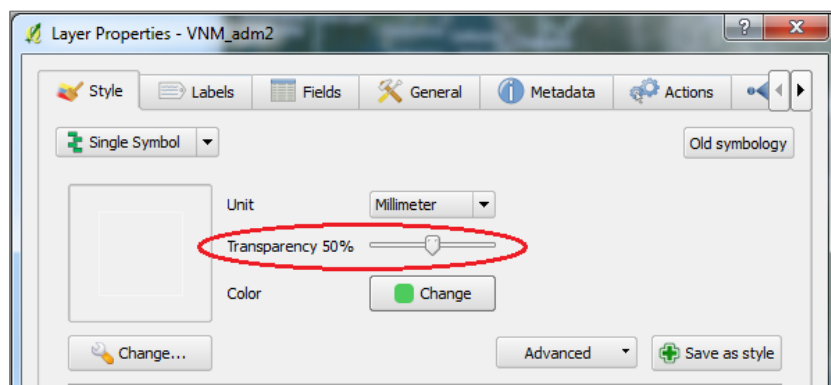
1. Open QGIS Desktop.
2. Add the *VNM\_adm2* layer from \\Training\Vietnam\_Training\05\_Data\03\_Shapefiles\00\_Country\Admin\
3. Select *Plugins > OpenLayers plugin > Add Bing Aerial layer with labels* from the *Plugins* menu.



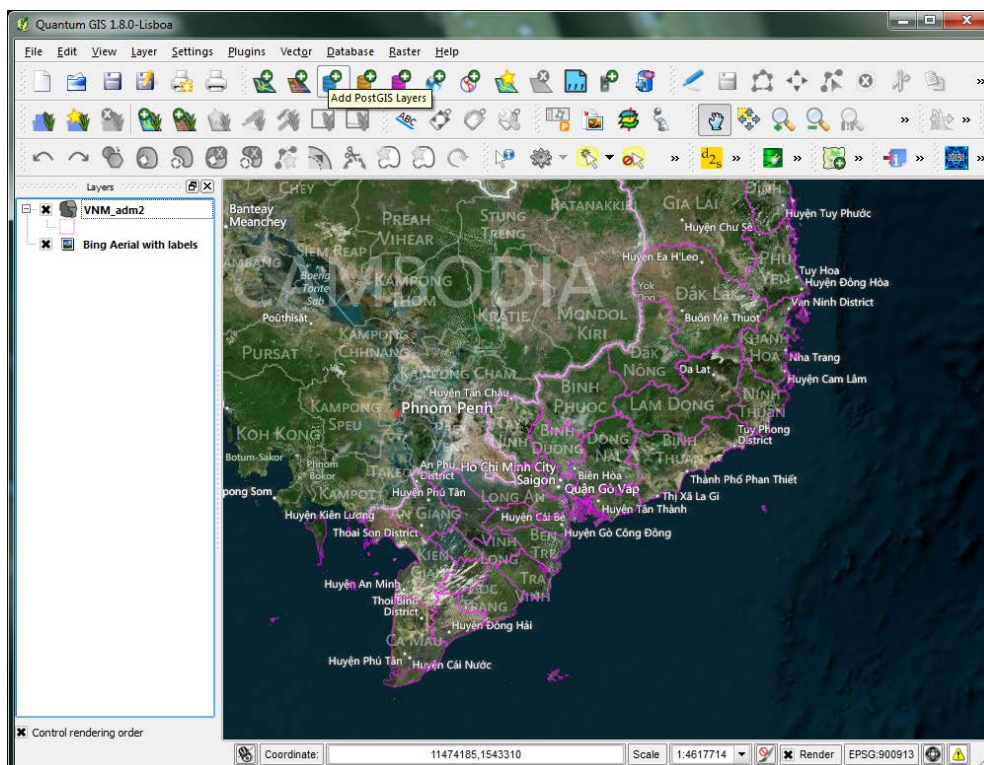
**Note:** If you don't see the OpenLayers plugin in the menu you might need to add it. See exercise 0 for details of this process.

4. The imagery may take a minute or two to load. Once it has loaded left-click the *Bing Aerial* layer in the layer panel (also called table of contents) and hold the mouse button down while dragging the layer below the *VNM\_adm2* layer. Right click the *VNM\_adm2* layer and select *Zoom to Layer Extent*. You should see the provinces of the country over the aerial image.

5. Right click on the *VNM\_adm2* layer and select properties.
6. Click the *Style* tab.
7. Click the Change button on the left. 
8. Select *No Brush* for the *Fill style*.
9. Select a color with high visibility (like bright purple ) for the *Border color*.
10. Click *OK*.
11. In the *Layer properties* window, adjust the *Transparency* slide to the right until the number says 50%.

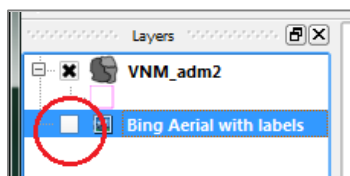


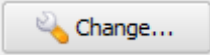
12. Click *OK*.
13. Zoom into regions at different levels and pan the map to explore the aerial imagery.

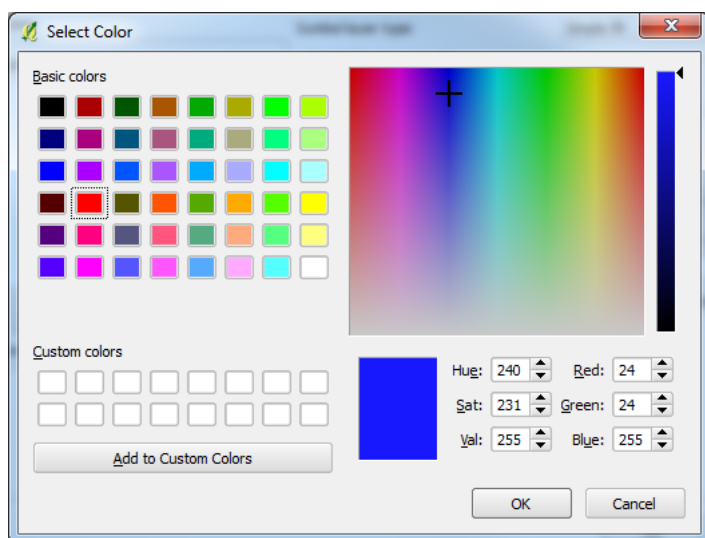


## Section 2: Changing the basemap

1. Uncheck the box next to *Bing Aerial with labels* in the Layer Panel.



2. Select Plugins > OpenLayers plugin > Add OpenStreetMap layer from the *Plugins* menu.
3. Right click on the *VNM\_adm2* layer and select properties.
4. Click the *Style* tab.
5. Click the *Change* button on the left. 
6. Click the *Change* button for the *Border color*.
7. Select a dark blue color from the spectrum by clicking and adjusting the color.



8. Click *OK* on all the open boxes to return to your map.
9. If the *VNM\_adm2* layer is not the first in the layer panel, then left-click on the layer and drag it to the top of the layer panel while holding the mouse button down.
10. Zoom into regions at different levels and pan the map to explore. Do you notice any differences between the *VNM\_adm2* layer and the basemaps? In which cases do you think basemaps are useful?

## End Exercise.

*The information provided in this exercise is not official American Red Cross information and does not necessarily represent the views of the American Red Cross. The exercise was adapted from materials produced by MEASURE DHS and MEASURE Evaluation, which are funded by the U.S. Agency for International Development (USAID). The information from those materials is not official U.S. government information and does not necessarily represent the views of USAID or the U.S. government.*