

# Basic Raster Styling and Analysis

## QGIS Tutorials and Tips



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Translations by

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□ □□□□□ Columbia University□ [Gridded Population of the World \(GPW\) v3](#) □□□□□ □□□ □□□□. □□, 1990□□ 2000□ □□□ ASCII □□□ □ □□□ □□□□ □□□ □□□□ □□□□□. □□□□ □□ □□□□ □□□ □□ □□□□□□□ □□□□□.

1. Go to the [Population Density Grid, v3 download page](#). Select the Data Attributes as .ascii format, 1° resolution and 1990 year. Click Download. At this point, you may create a free account and login, or use the Guest Download button at the bottom to immediately download the data. Repeat the process for 2000 year data.

Set Overview

Data Download

Maps

Map Services

Metadata

## Downloads

Recommended Citation:

Center for International Earth Science Information Network - CIESIN - Columbia University, and Centro Internacional de Agricultura Tropical - CIAT. 2005. Gridded Population of the World, Version 3 (GPWv3): Population Density Grid. NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://sedac.ciesin.columbia.edu/data/set/gpw-density>. Accessed DAY MONTH YEAR.

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ENW

Use this format for EndNote and RefWorks software.

RIS

Use this format for ProCite, Reference Manager and Zotero software.

Data:

Geography: 

Region » Global

Data Set: 

Population Density Grid

Data Attributes: 

.ascii

1°

1990

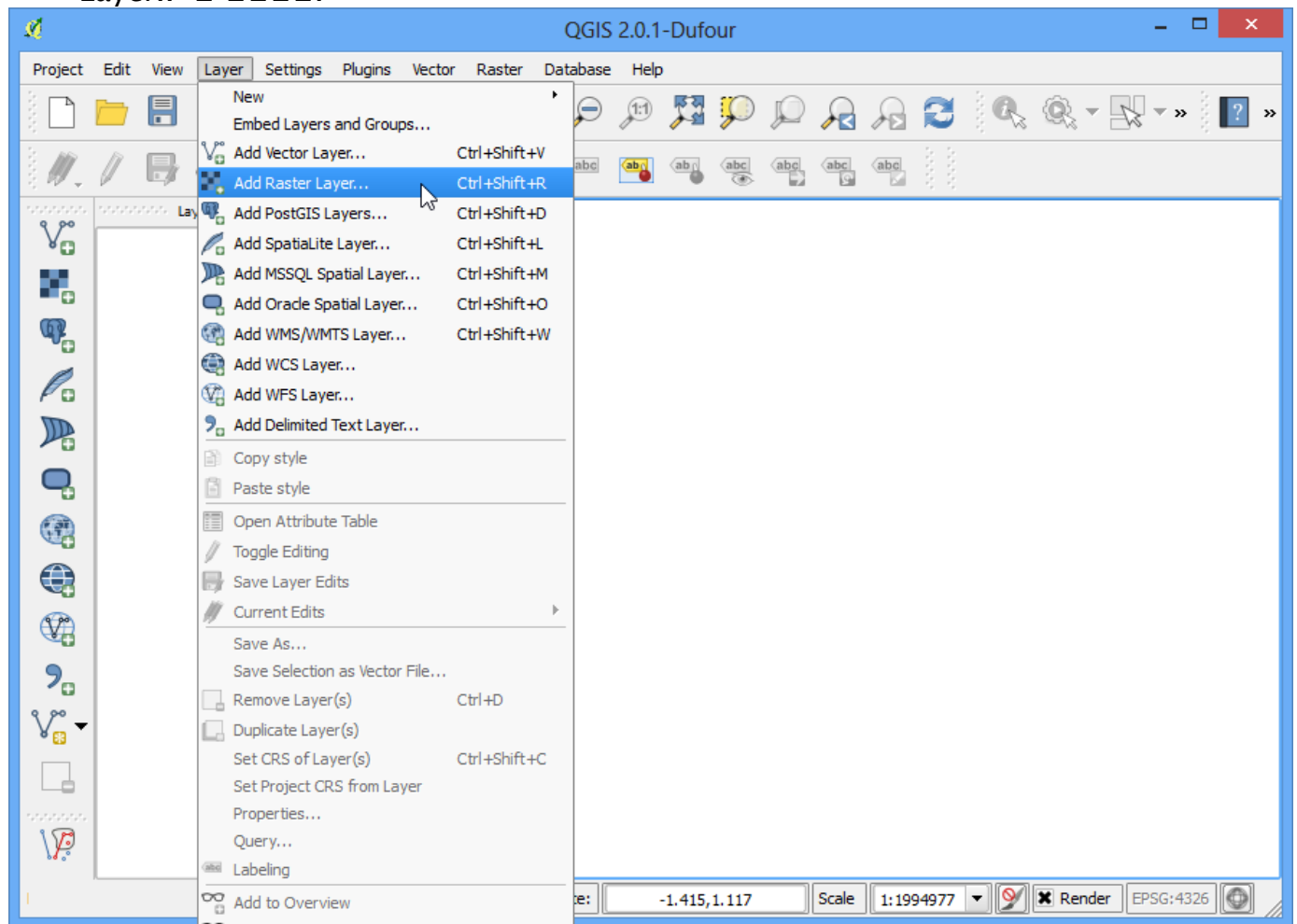
Download

 feedback and support

□ □ □ □ □ [GPW3]

11

2. QGIS → Layer → Layer Properties → Layer → Add Raster



3. 000000 000000 00000. 00000 :kbd:`Ctrl` 0 00000 000 000000 000000. 0 00000  
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5. □□□□ □□□ CRS □ □ □ □ □□□□. □□□ □□□□ □□/□□□□□ □□□□□ `EPSG:4326` □ □□□□□.



6. 在弹出的对话框中，选择 WGS 84 坐标系。单击 OK 按钮。



7. 在弹出的对话框中，选择 EPSG:4326 坐标系。单击 OK 按钮。



8. QGIS 项目 坐标 系统 选择。 项目 坐标 系统 选择。 项目 坐标 系统 选择， 项目 坐标 系统 选择。





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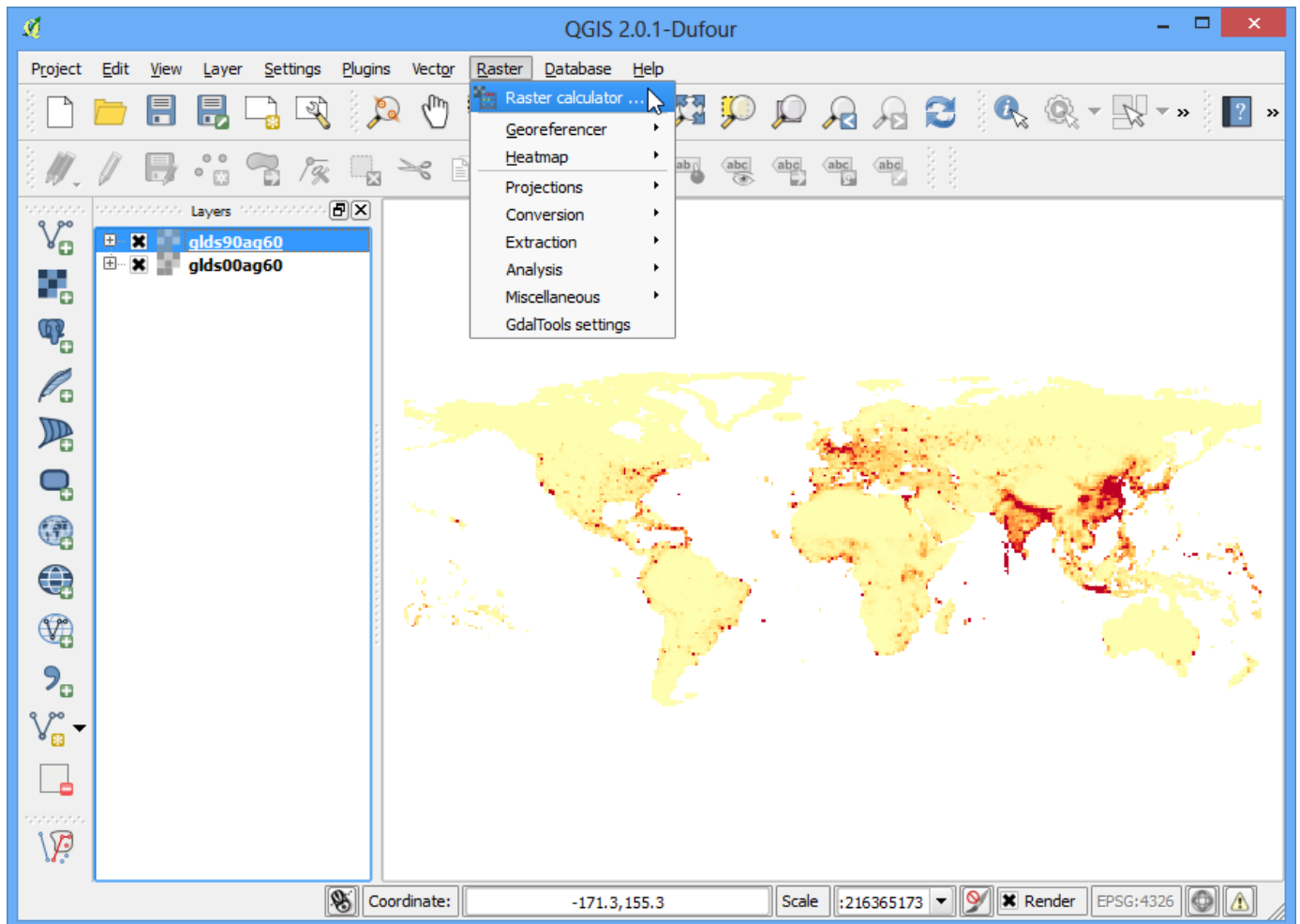




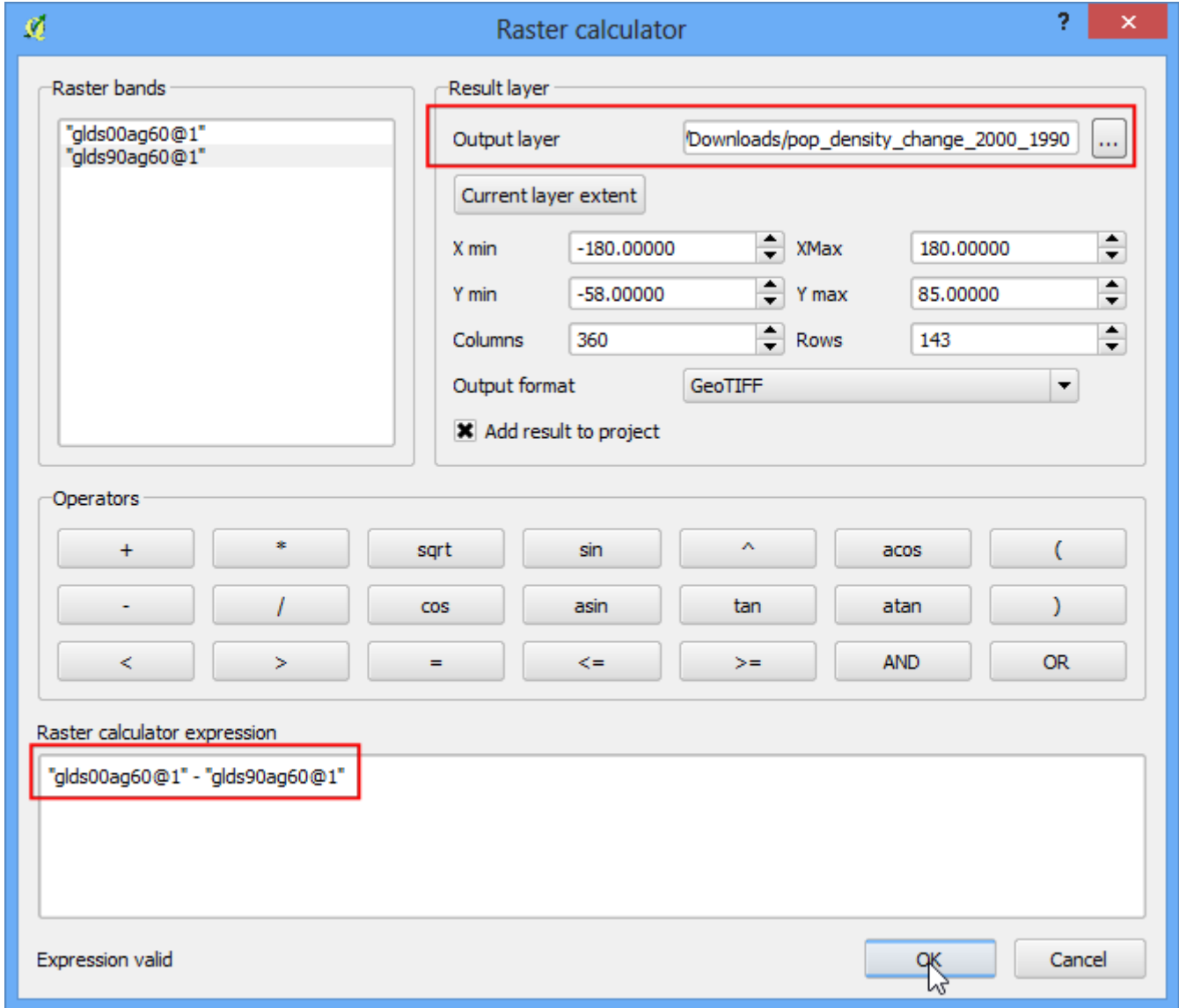


12. QGIS の Style タブで、単バンド擬似カラーで表示する。カラーマップを生成し、累積カウントカットで分類する。範囲を全範囲とし、推定（高速）の精度で表示する。





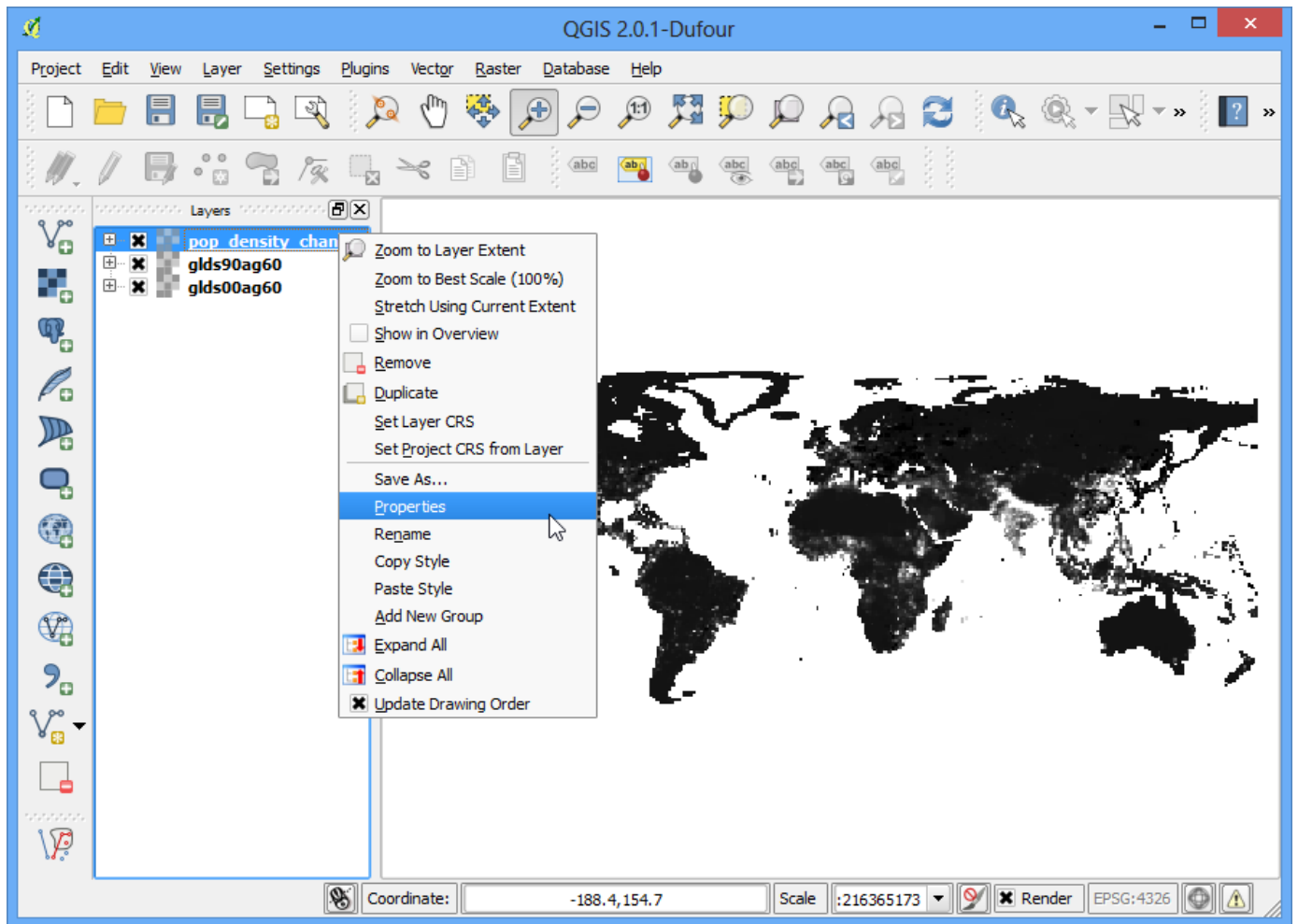
14. In the Raster bands section, you can select the layer by double-clicking on them. The bands are named after the raster name followed by @ and band number. Since each of our rasters have only 1 band, you will see only 1 entry per raster. The raster calculator can apply mathematical operations on the raster pixels. In this case we want to enter a simple formula to subtract the 1990 population density from 2000. Enter `glds00ag60@1 - glds90ag60@1` as the formula. Name your output layer as `pop_density_change_2000_1990.tif` and check the box next to Add result to project. Click OK.



**15.** □ □□□ □□□□ QGIS □□ □□□□ □□□□ □□ □ □ □□□□.



16. `pop_density_change_2000_1990`, `pop_density_change_2000_1990`.  
 :guiLabel: Properties



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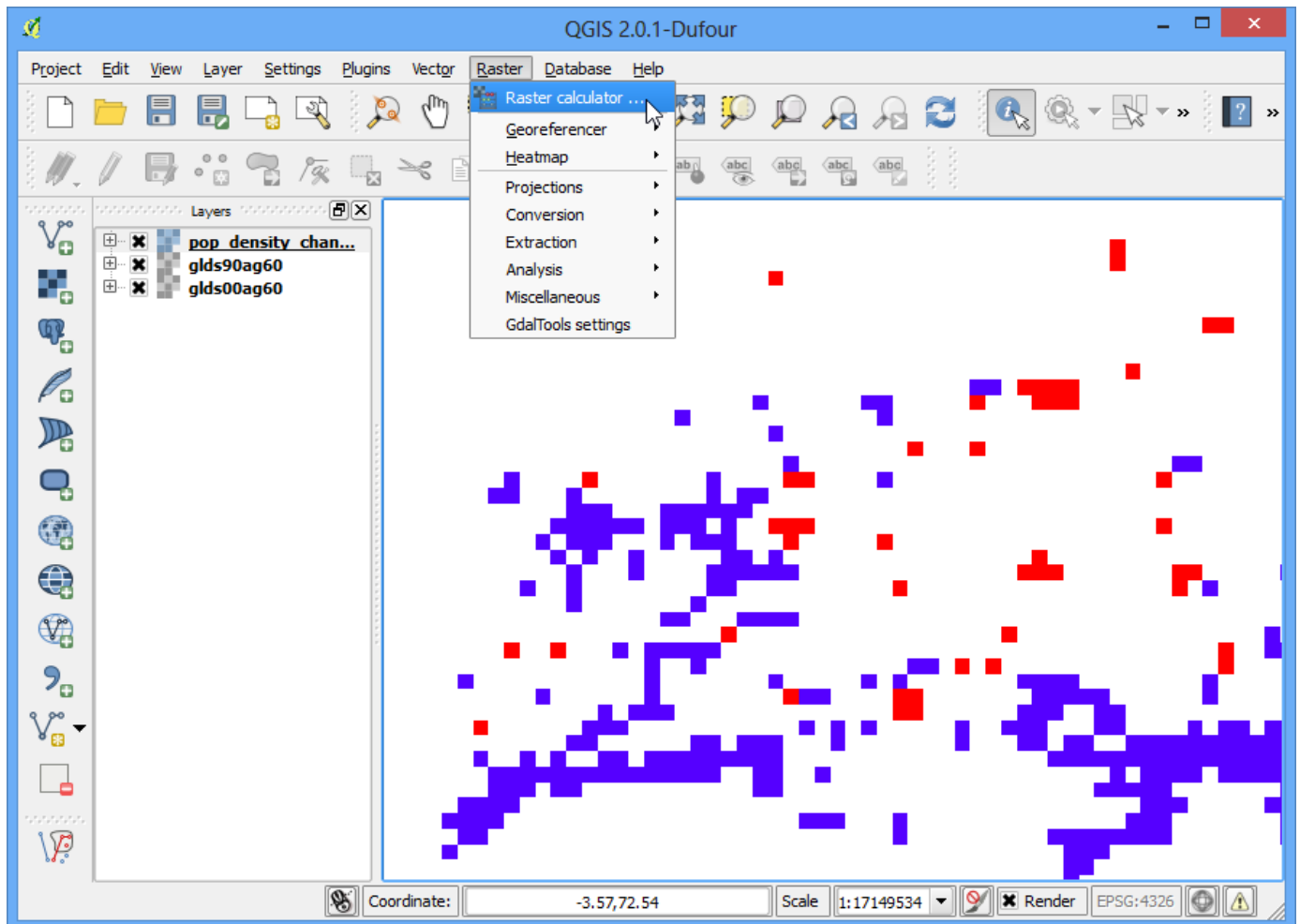








21. □□ □ □ □ □□□ □□□□ '□□' □ □□□ □□□□. □□ □□ --> □□□ □□□  
:menuselection: `Raster --> Raster calculator` □ □□□.



22. Enter the expression as shown below What this expression will do is set the value of the pixel to 1 if it matches the expression and 0 if it doesn't. So we will get a raster with pixel value of 1 where there was negative change and 0 where there wasn't. Name the output layer as *negative\_pop\_change\_2000\_1990* and check the box next to Add result to project. Click OK.

```
pop_density_change_2000_1990@1 < -10
```



23. □□ □□□ □□□□ □□□□□□□□. □□□ □□□ □□□ □ □□ □□ :guilabel: `Properties` □  
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