

Basic Raster Styling and Analysis

QGIS Tutorials and Tips



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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 ▾

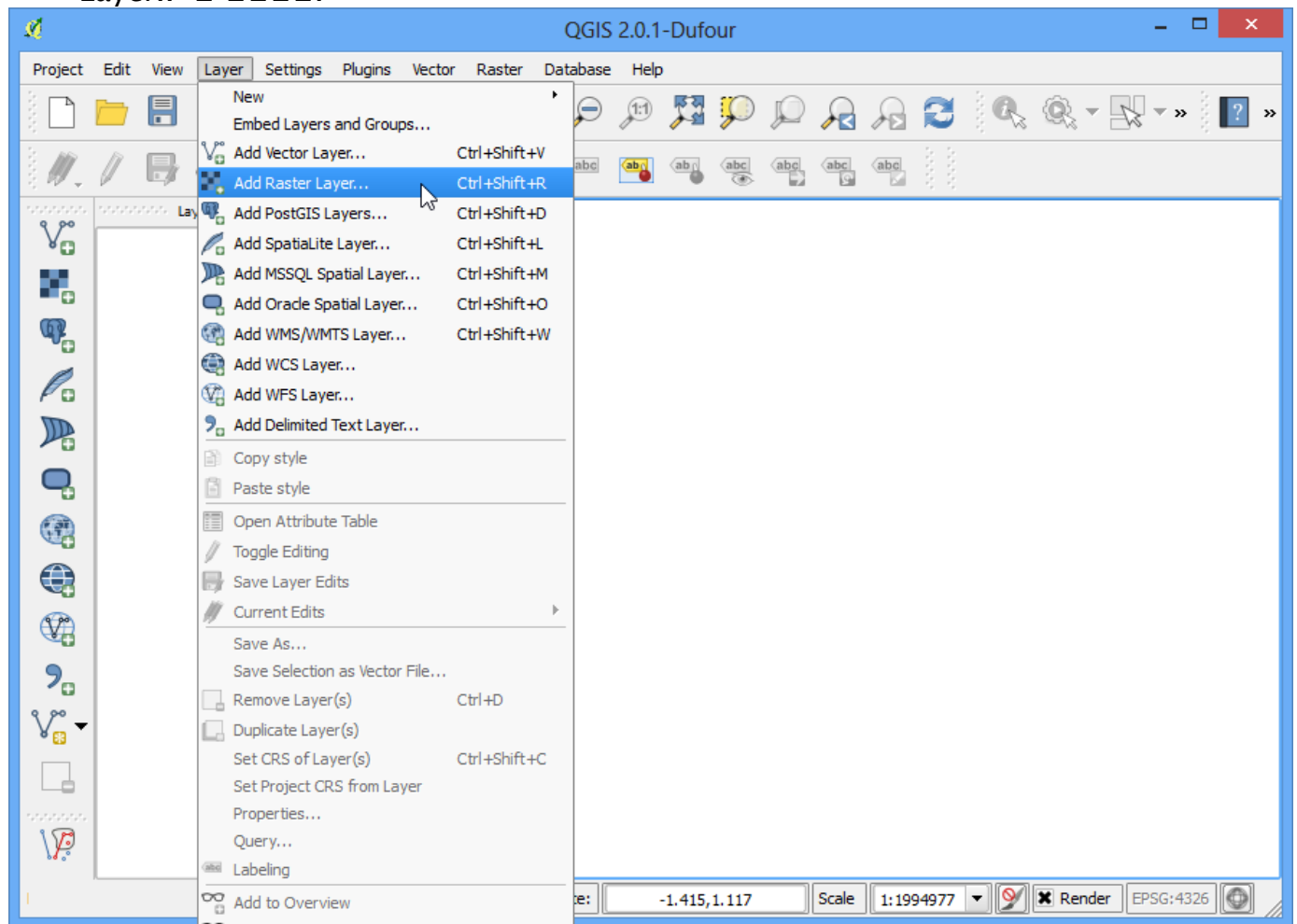
Download

 feedback and support

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2. QGIS → Layer → Add Raster



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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。



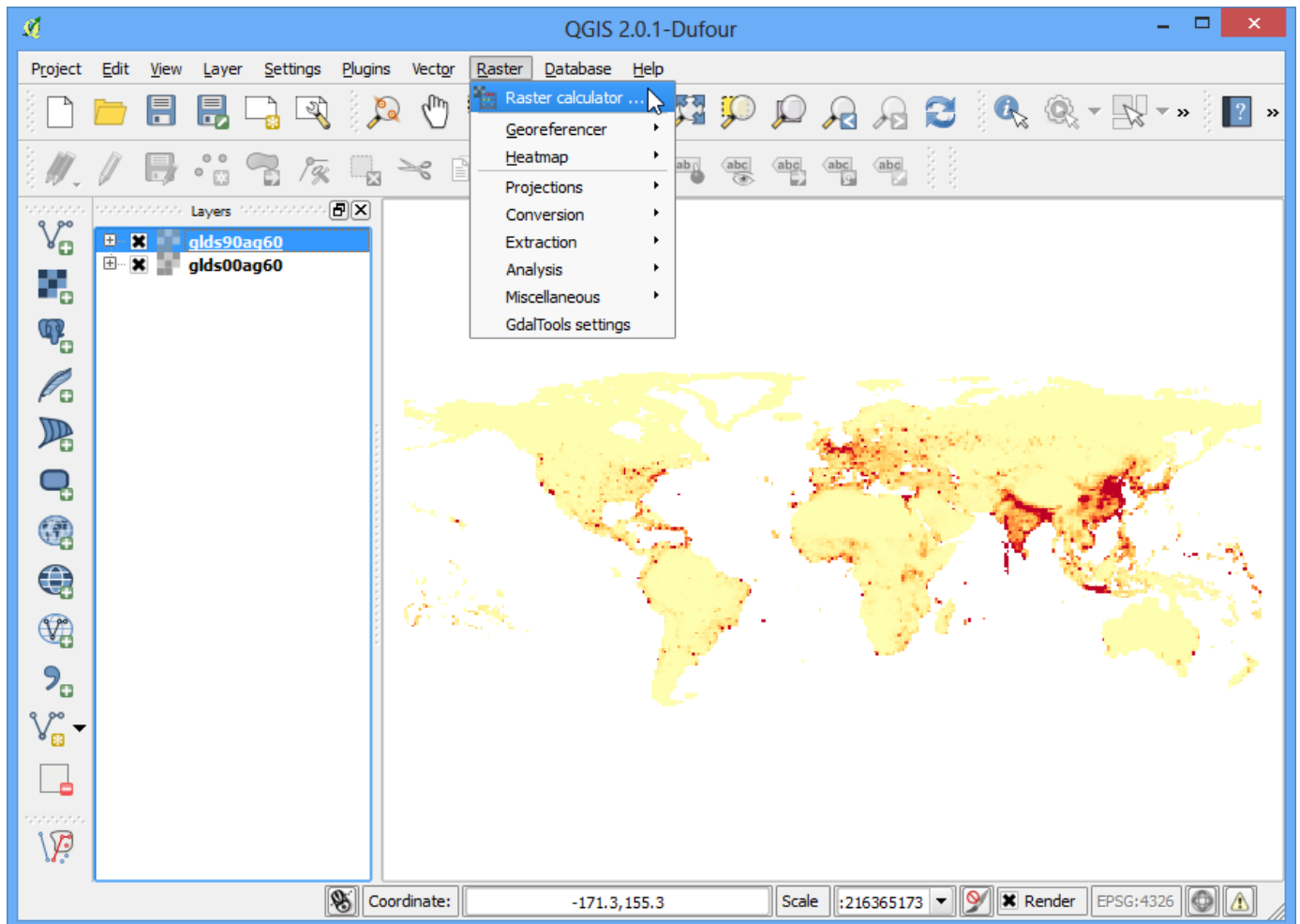
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12. QGIS の Style タブで、単バンド擬似カラーでバンド 1 をレンダリングする。カラーinterpola-
tion は Linear とする。新しいカラーマップを生成する。カラーマップは YlOrRd カラーレ-
ンで 5 クラスで生成する。最小値は 0、最大値は 440.32 とする。累積カウントカットで、2.0 から 98.0% の範囲で、フル extent で、推定 (速い) の精度で、スタイルをロードする。



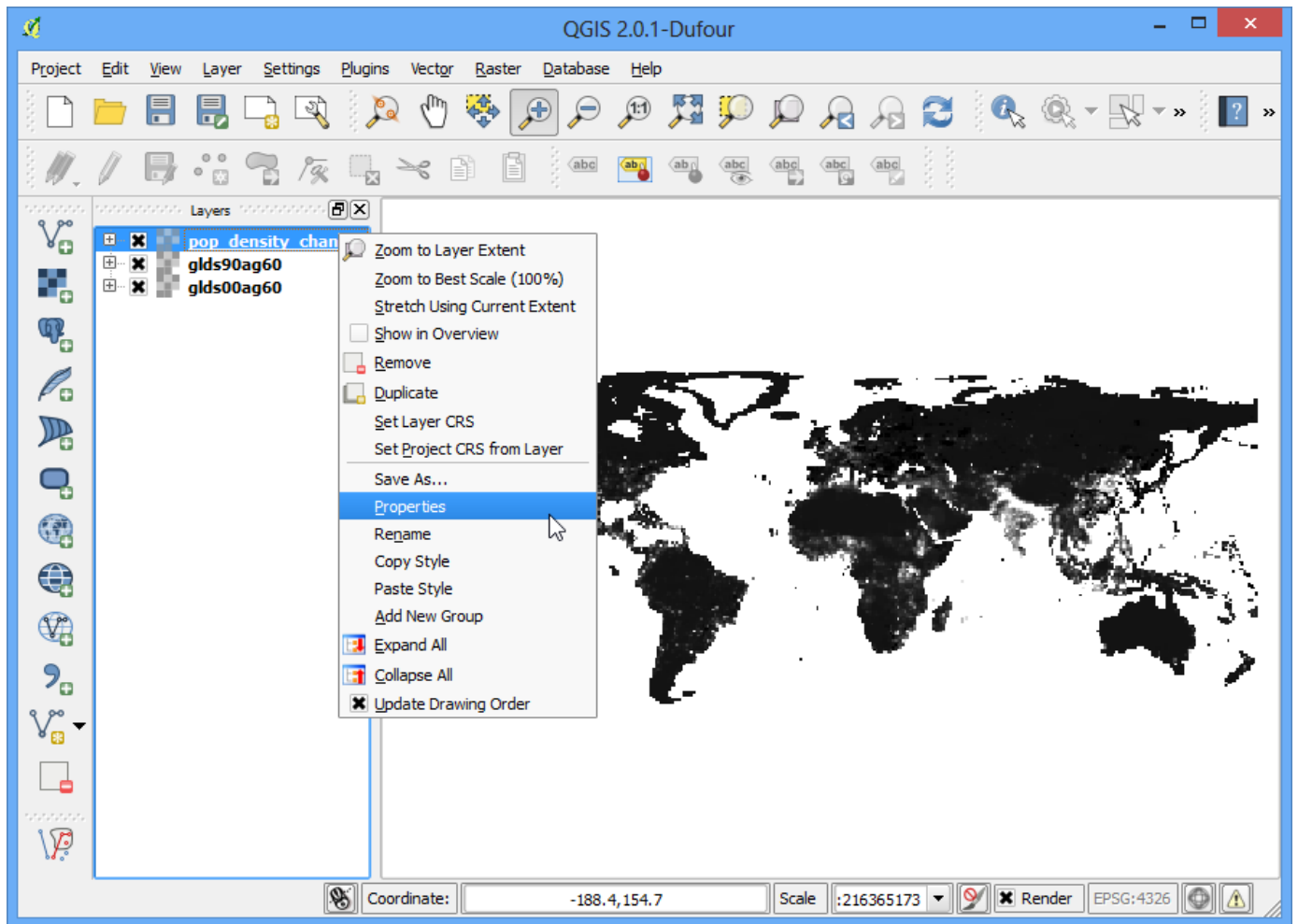
14. In the Raster bands section, you can select the layer by double-clicking on them. The bands are named after the raster name followed by @ and band number. Since each of our rasters have only 1 band, you will see only 1 entry per raster. The raster calculator can apply mathematical operations on the 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



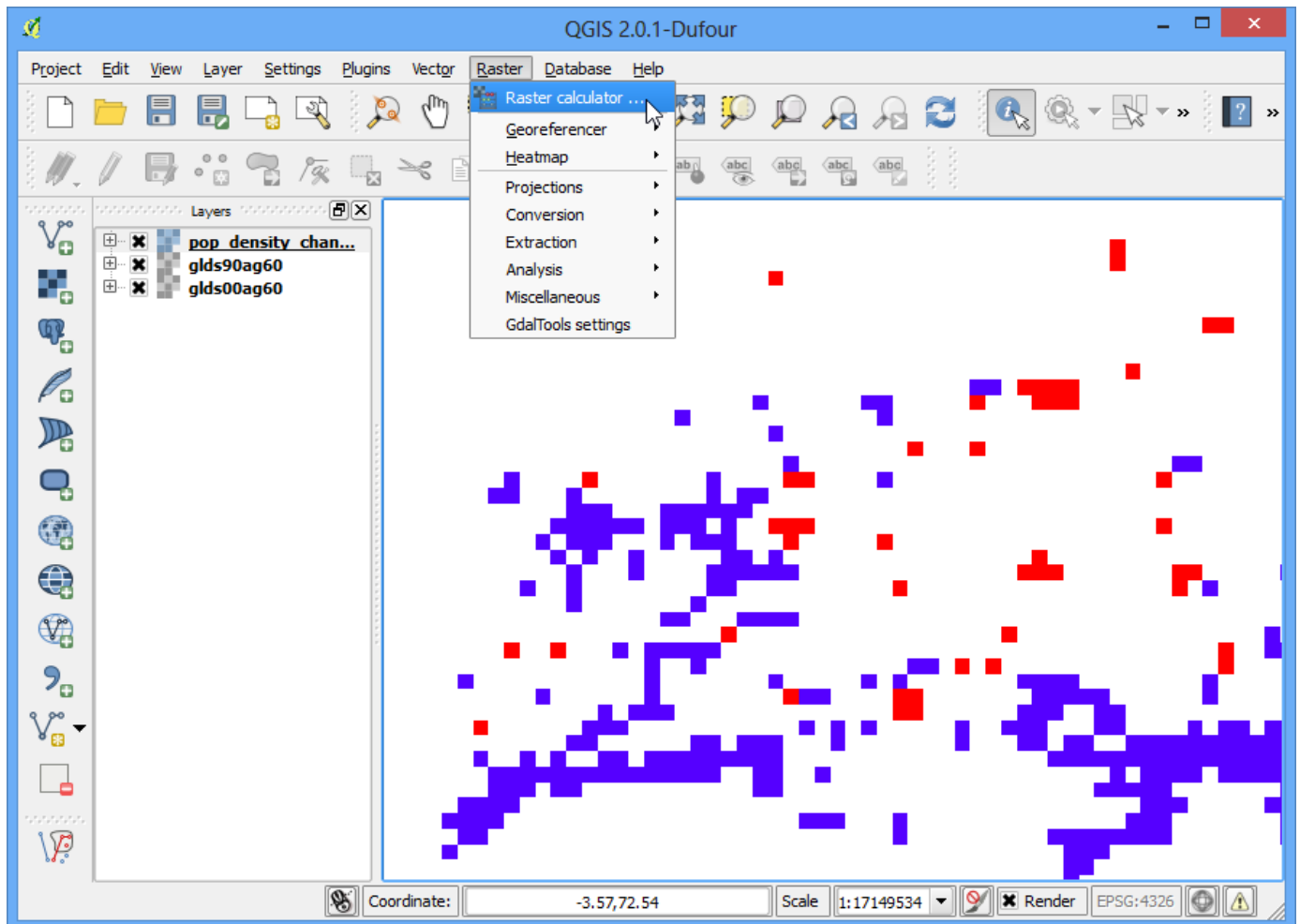
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21. `menuselection: Raster --> Raster calculator`



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
```



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