

Basic Raster Styling and Analysis

QGIS Tutorials and Tips



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Translations by

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QGIS is a free and open source geospatial software package. It provides a graphical user interface (GUI) and a command-line interface (CLI) for processing geospatial data. QGIS is a powerful tool for working with vector and raster data. It can be used to create maps, perform spatial analysis, and manage geospatial data. QGIS is a cross-platform application that runs on Windows, Mac OS, and Linux. It is a good choice for anyone who needs a free and open source geospatial software package.



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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.

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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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Data:

Geography:
[Region](#) » [Global](#)

Data Set:
[Population Density Grid](#)

Data Attributes:
[.ascii](#) [1°](#) [1990](#) [Download](#)

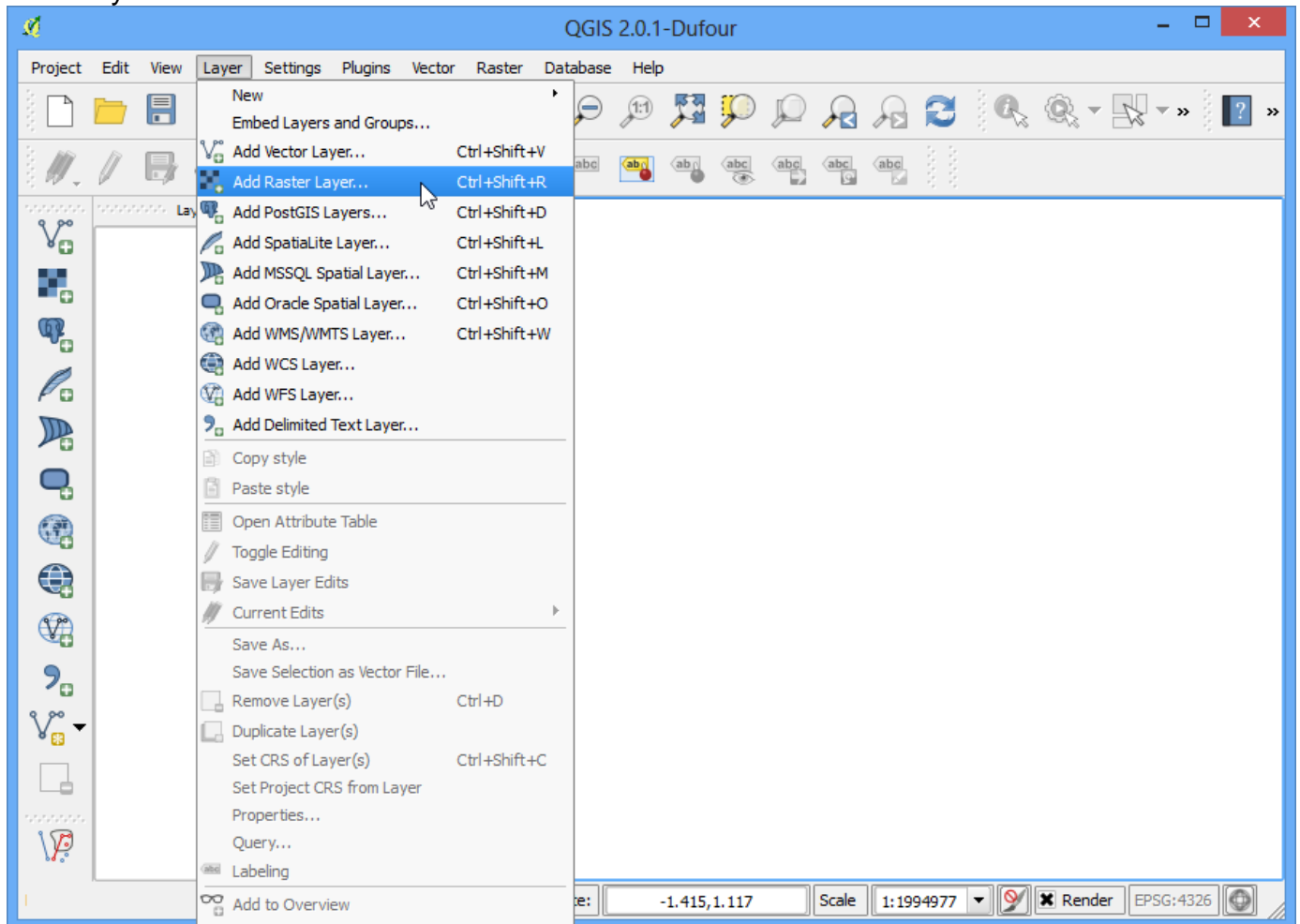
feedback and support

2 ■■■ ■■■■■ ■■■■■ ■■■■.

■■■■ ■■ [GPW3]

11

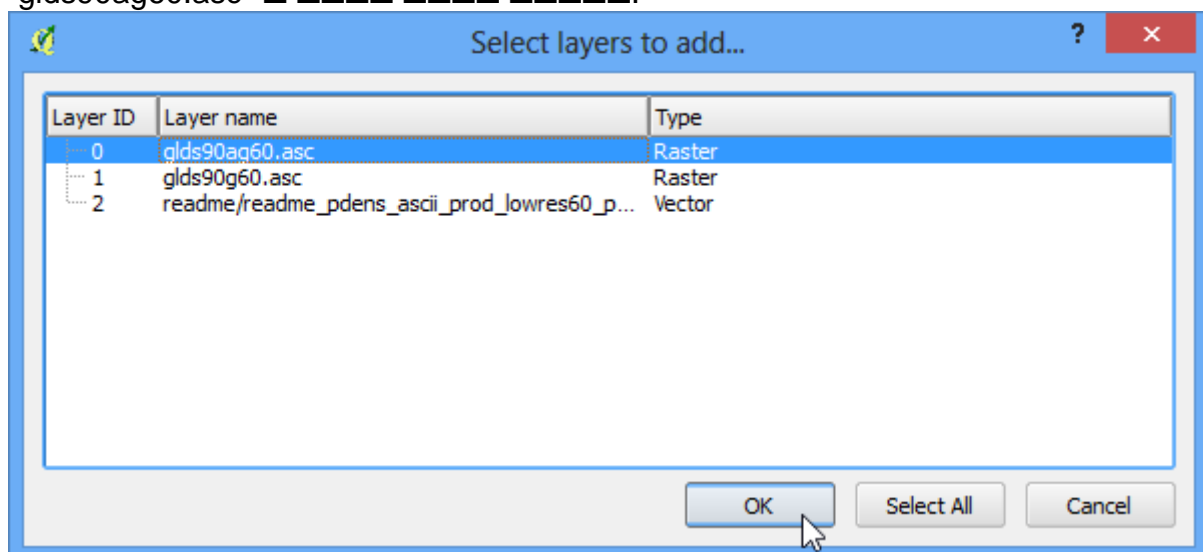
```
2. QGIS ■■■■■ ■■ ■■■ --> ■■■ ■■■ ■■ :menuselection: Layer --> Add Raster
Layer.. ■■■■■.
```



3. ■■■■■■ ■■■■■■ ■■■■■■. ■■■■■■ :kbd:`Ctrl` ■■■■■■ ■■■■ ■■■■■■ ■■■■■■. ■ ■■■■■■ ■
■■■■■■ ■■■■ ■■■■ ■■■■■■. ■■■■ ■■ ■■ ■■■■ ■■■■■■ ■■■■ ■■■■ ■■■■■■.



6. `glds90ag60.asc`



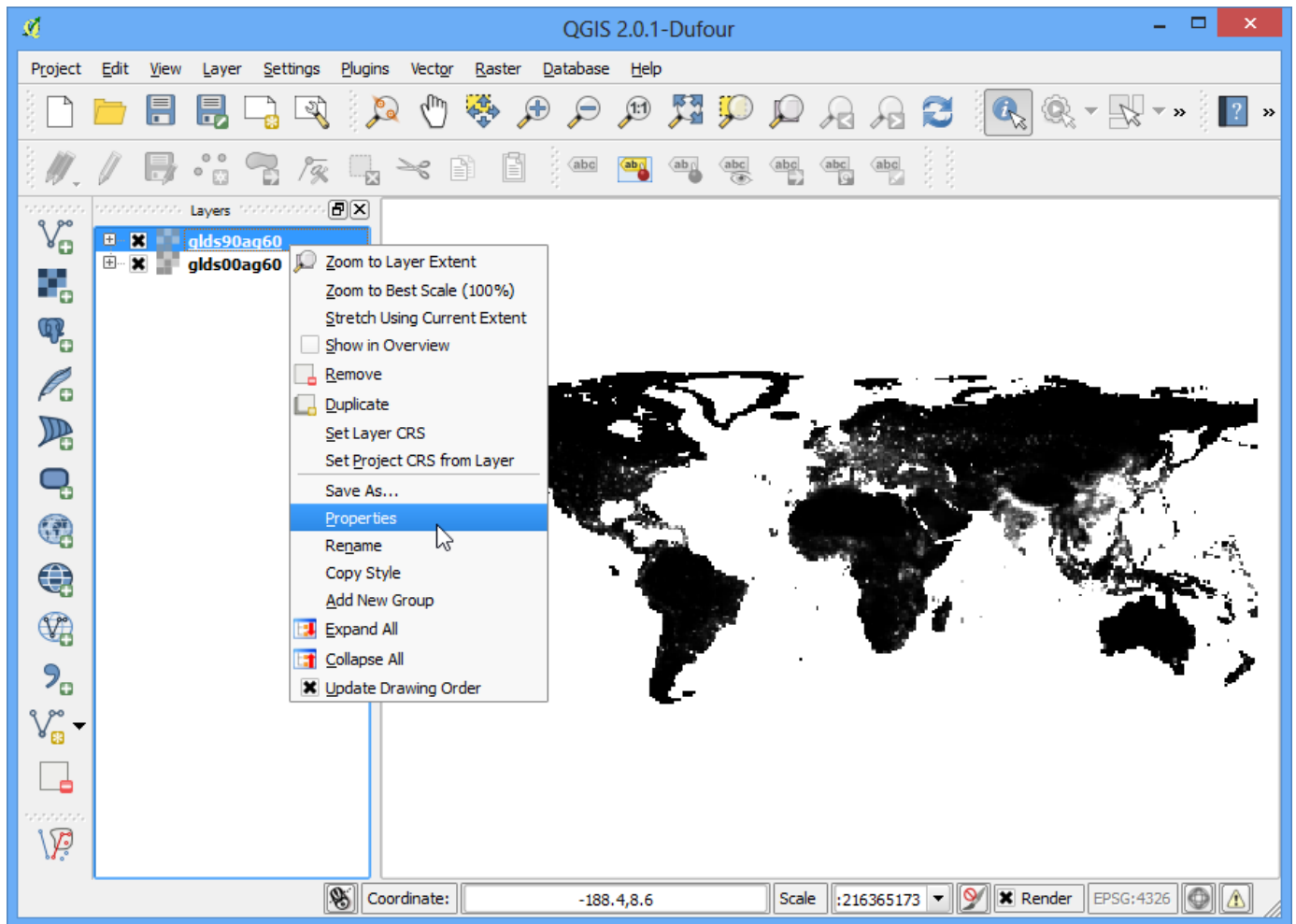
7. CRS `EPSG:4326`



8. ■■■ QGIS ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■. ■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■. ■■■■■ ■■■■■ ■■■■■ ■■■■■ ■■■■■, ■■■ ■■■ ■■■■■ ■■■ ■■■■■■■■■■.



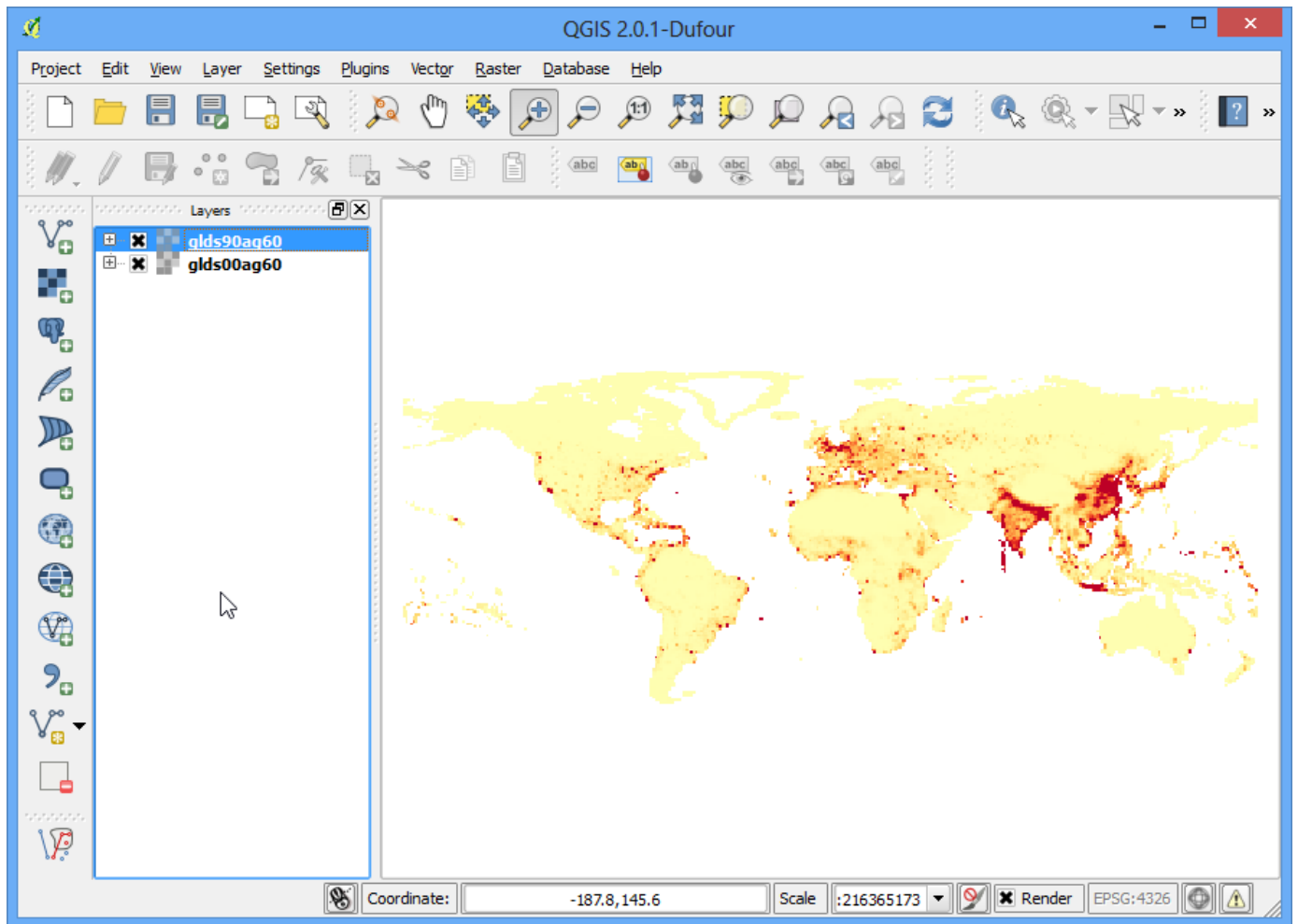
10. `guiabel: Properties`. TOC , Table of Contents.



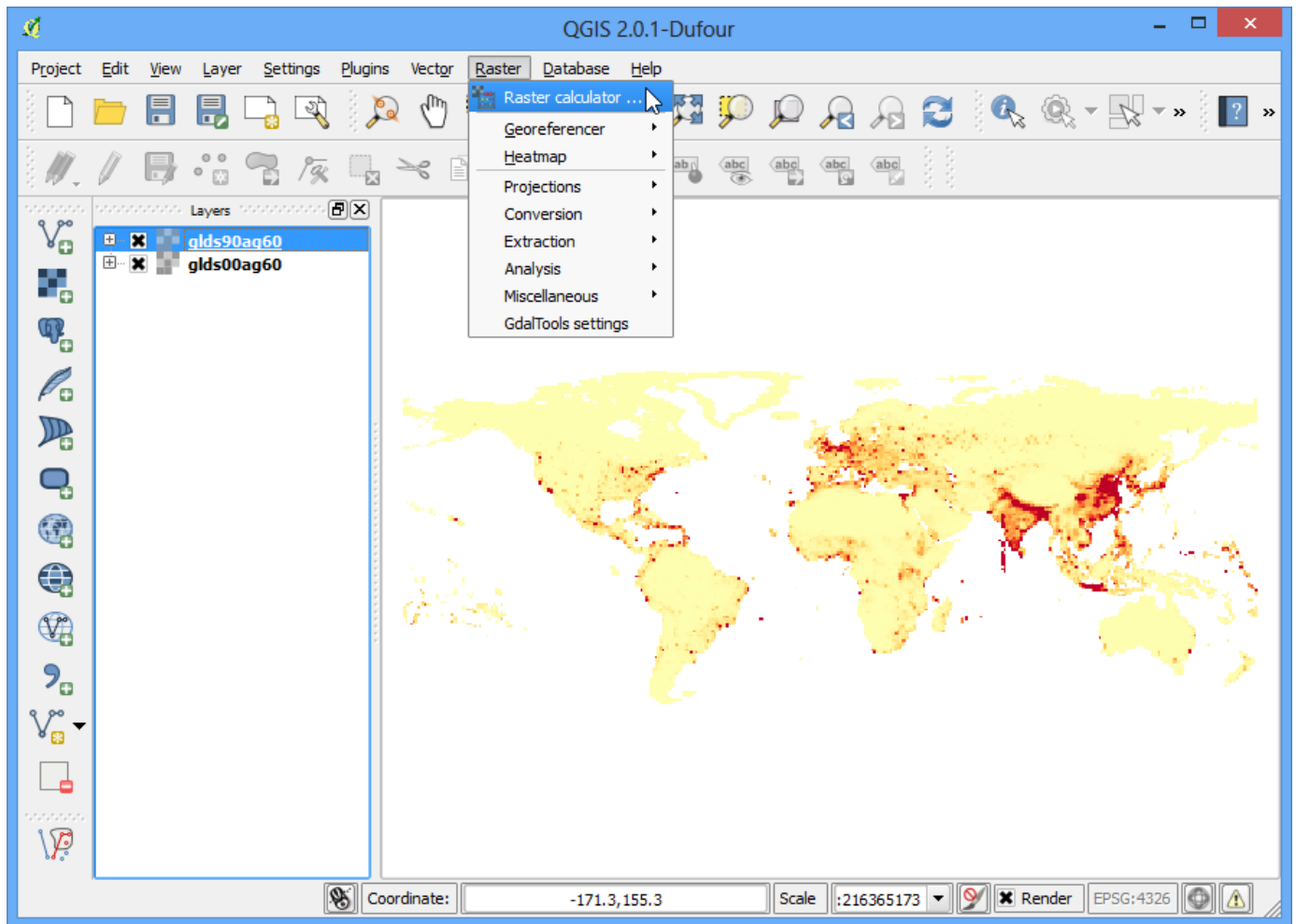
11. ■■■■ Style ■■■■ ■■ ■■ Render type ■ ■■■■■ ■■■■■ Singleband pseudocolor
 ■■■■■. ■■ ■ ■■■■ ■■ :guilabel:`Generate a new color map` ■■ ■■ :guilabel:`Classify`
 ■■■■■. 5 ■■ ■■■■ ■■■■ ■■■■■ ■■ ■ ■■■■■. :guilabel:`OK` ■ ■■■■■.



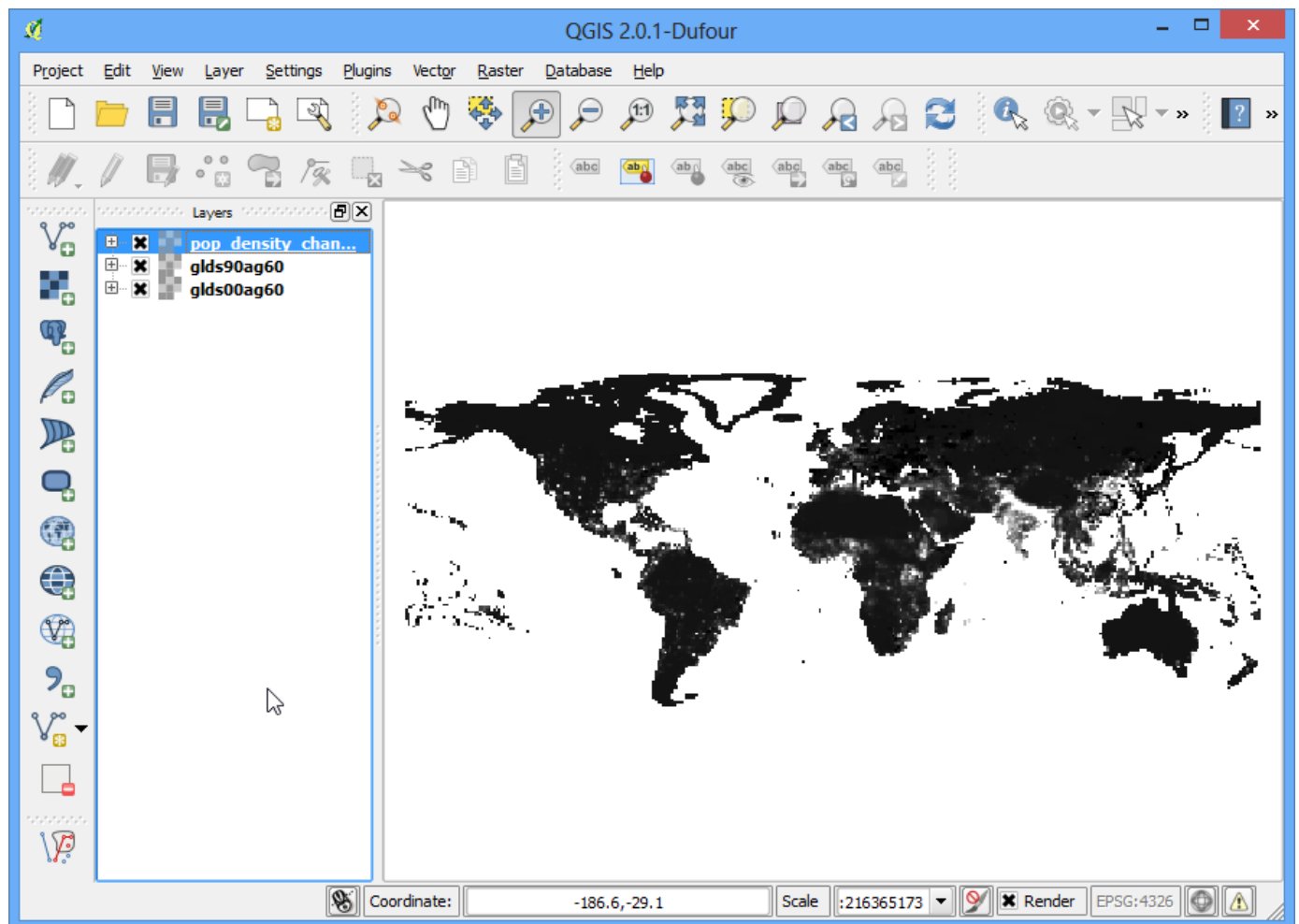
12. QGIS ■■■■ ■■■ ■■■. ■■■■ ■■■ ■■ ■■■ ■■ ■ ■■■■. ■■ ■■■ ■■ ■■■■ ■■ ■■■■.



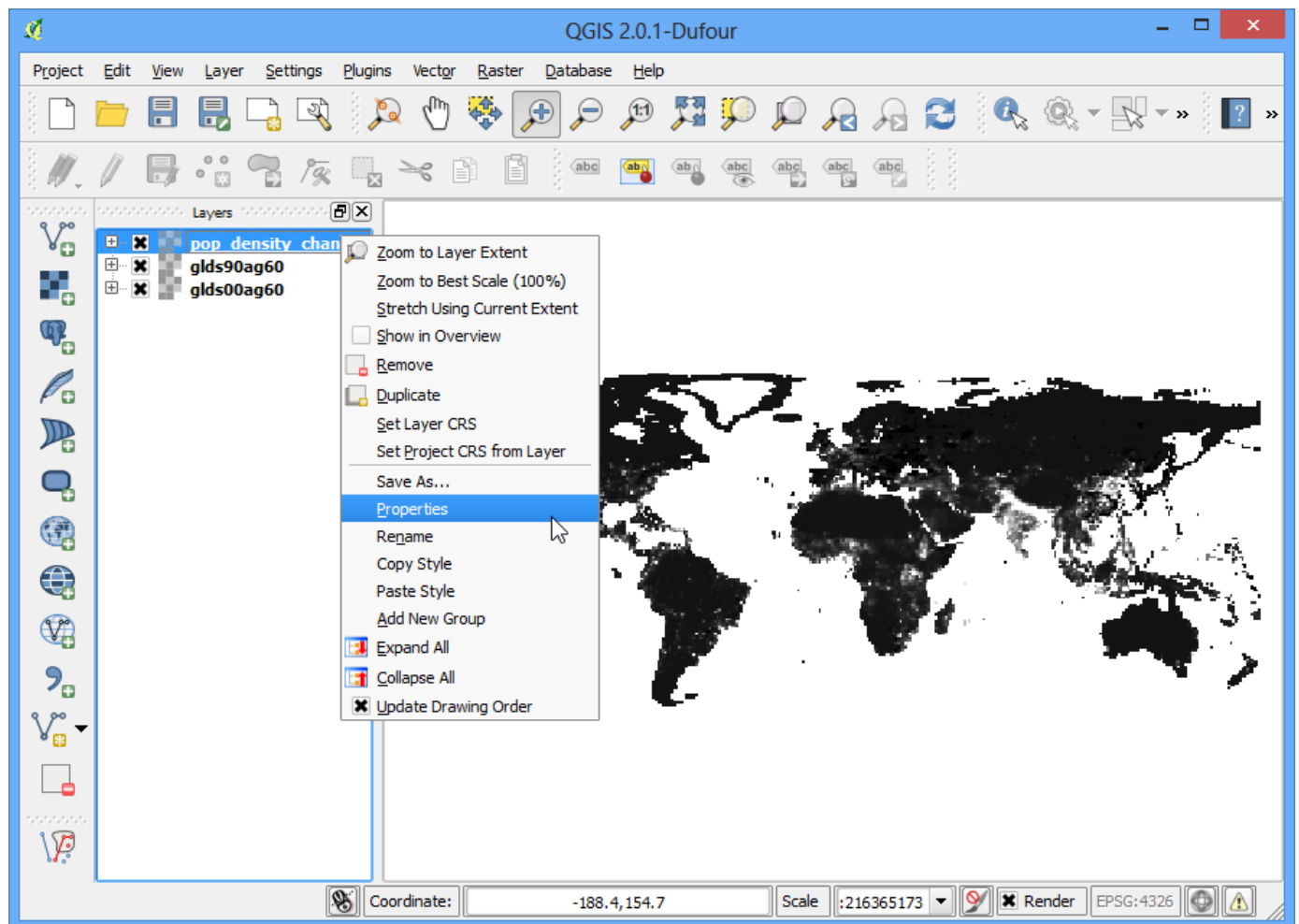
13. ■■■■■■ 1990■■■ 2000■ ■■■■ ■■ ■■■■■■ ■ ■■ ■■ ■■■■■■. ■■■■ ■■■■ ■■ ■■■■ ■■■■ ■■■■■■ ■ ■■ ■■■■ ■■■■ ■■■■. ■■■> ■■■■ --> ■■■■ ■■■■ :menuselection: Raster --> Raster calculator`■ ■■■■■■.



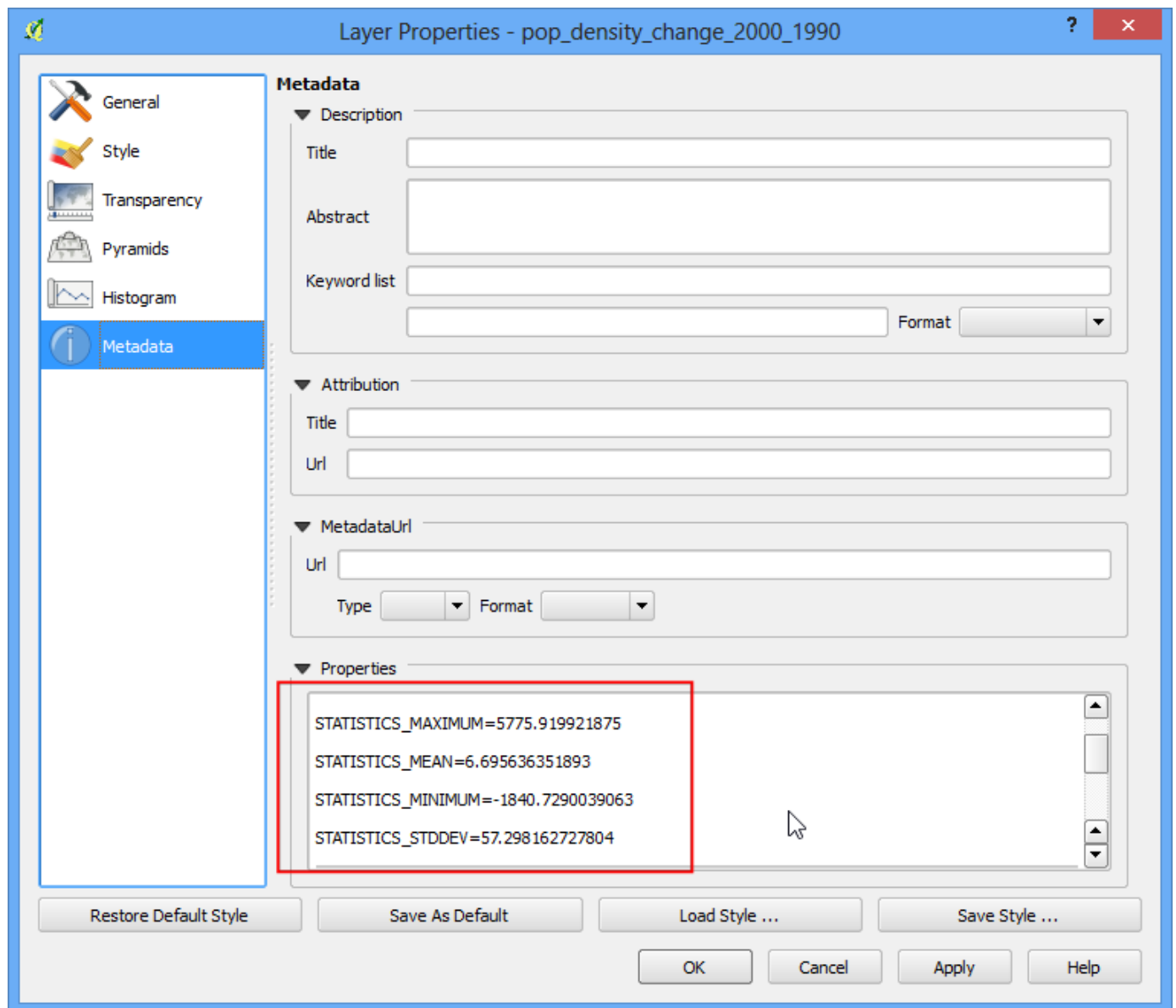
14. **Raster bands** **glds00ag60** **glds90ag60** **1** **glds00ag60@1 - glds90ag60@1** **pop_density_change_2000_1990.tif** **Add result to project** **OK**



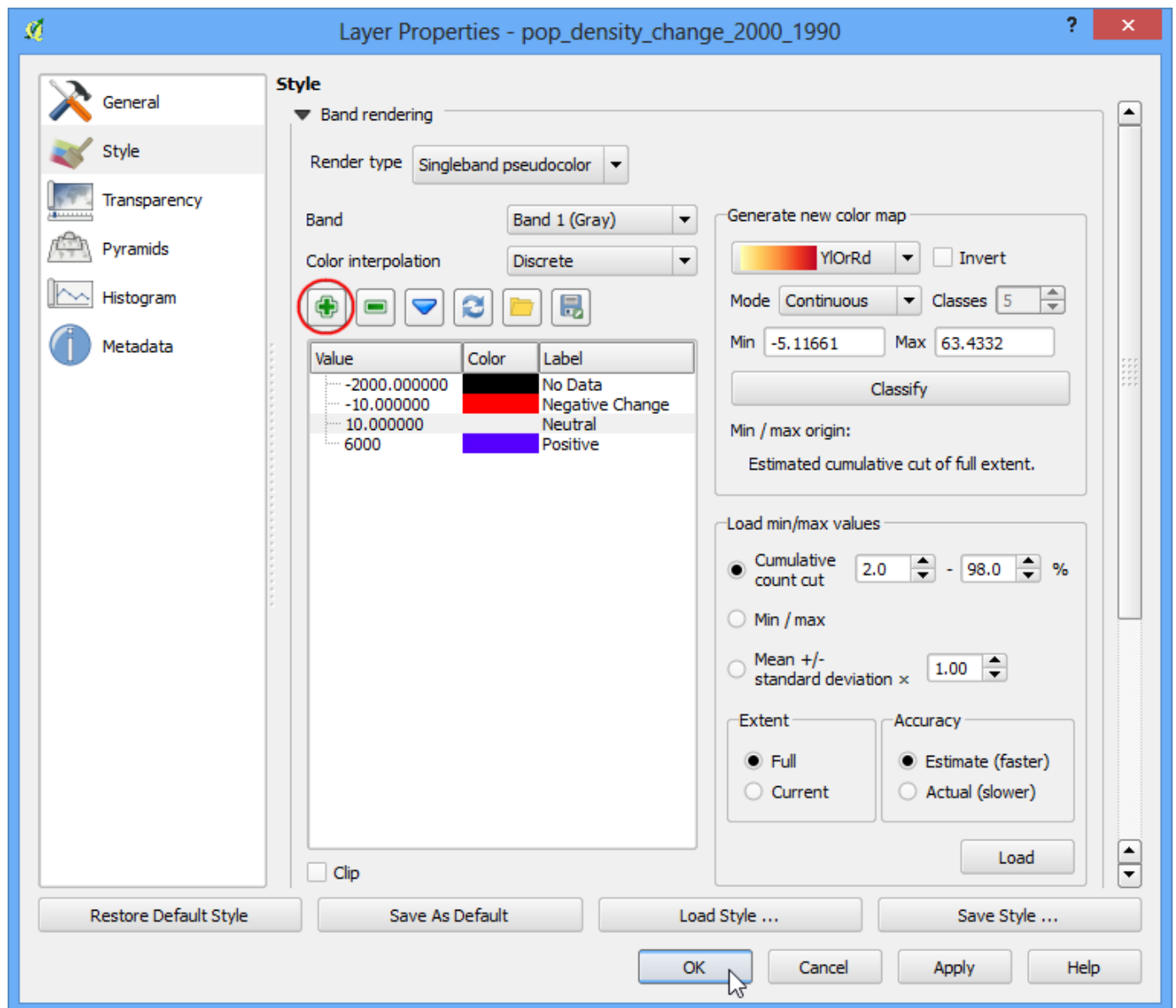
16. `pop_density_change_2000_1990``
:guilabel: Properties



17. `guiabel:Metadata`



18. **Style** **Band Rendering** **Render type** **Singleband pseudocolor** **Color interpolation** **Discrete** **Add entry** **4** **-2000** **-2000** **No Data** **OK**



19. `self.zoom_in_button.setText('Zoom In')`



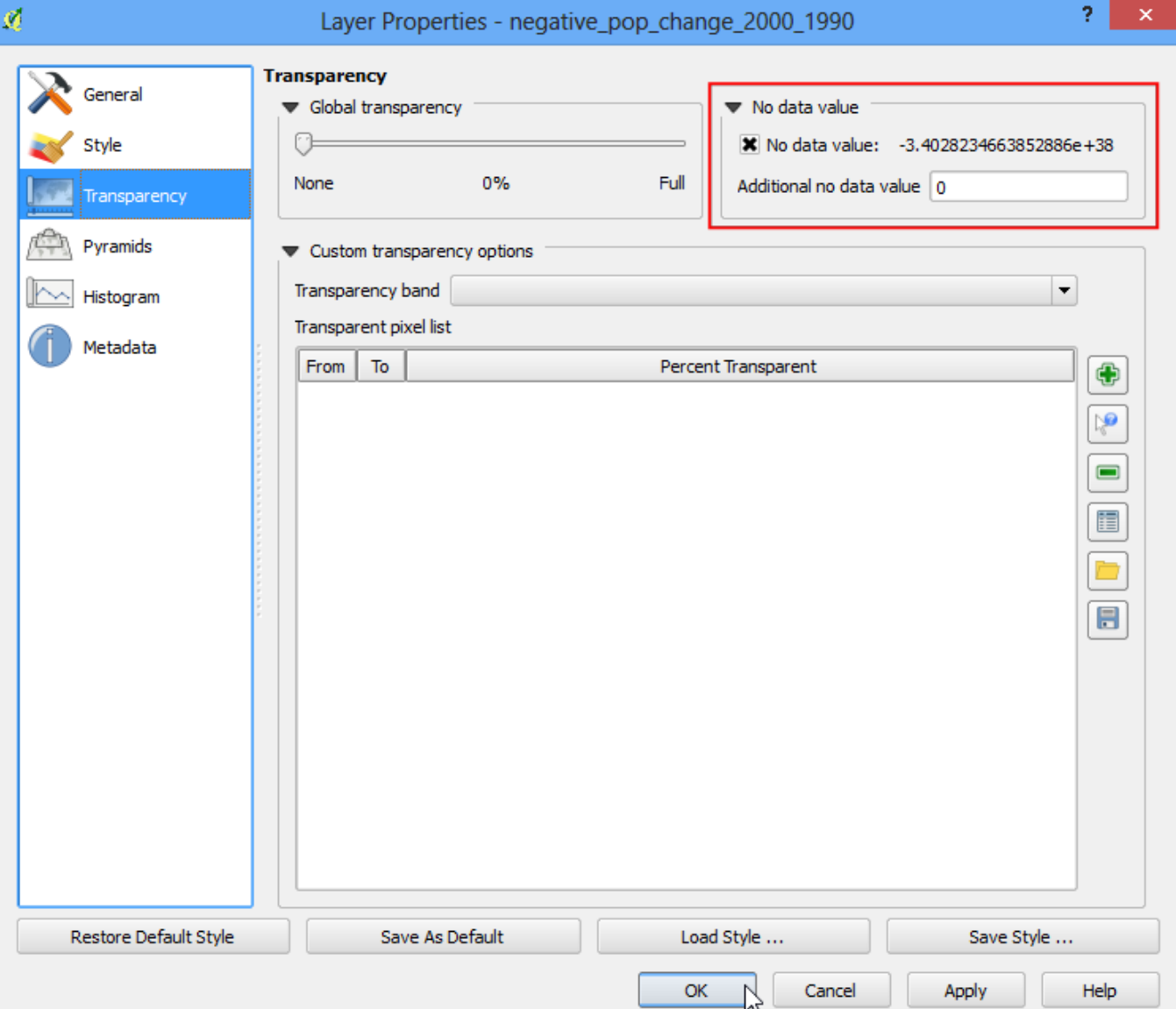
21. ■■■ ■ ■ ■ ■■■■ ■■■■■■ '■■■' ■■■■ ■■■■■■. ■■ ■■■ ■■■■■ --> ■■■■ ■■■■
 :menuselection: `Raster --> Raster calculator` ■■■■.



22. `pop_density_change_2000_1990@1 < -10`. `negative_pop_change_2000_1990`.
 1 0. `negative_pop_change_2000_1990`.
 0. `negative_pop_change_2000_1990`.
 :guilabel: Add result to project. OK.



23. ■■■ ■■■■ ■■■■ ■■■■■■■■■■. ■■■■ ■■■■ ■■■■ ■ ■■■ ■■■ :guilabel: `Properties` ■■■■■■■■. ■■■■ :guilabel: `Transparency` ■■■■ ■■■■ no data value :guilabel: `Additional no data value` ■ 0 ■■■■■■■■. ■■■■ ■■■■ 0 ■■■ ■■■ ■■■ ■■■■ ■■■■■. :guilabel: `OK` ■■■■■■■■.



24. ■■ ■■■■■ ■■■ ■■■ ■■ ■■■ ■ ■■■■.

