Normalized Difference in Vegetation Index

A Tutorial

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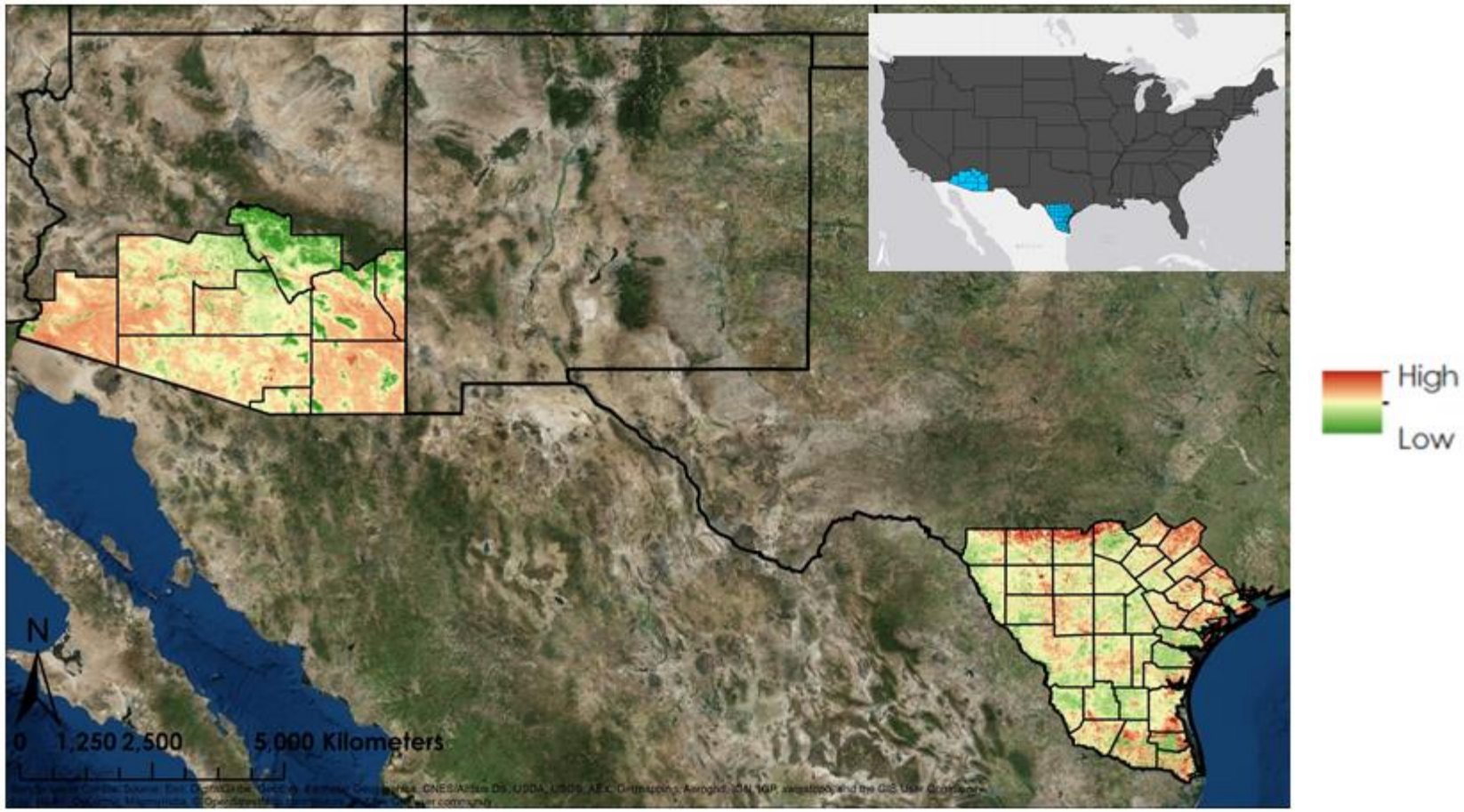
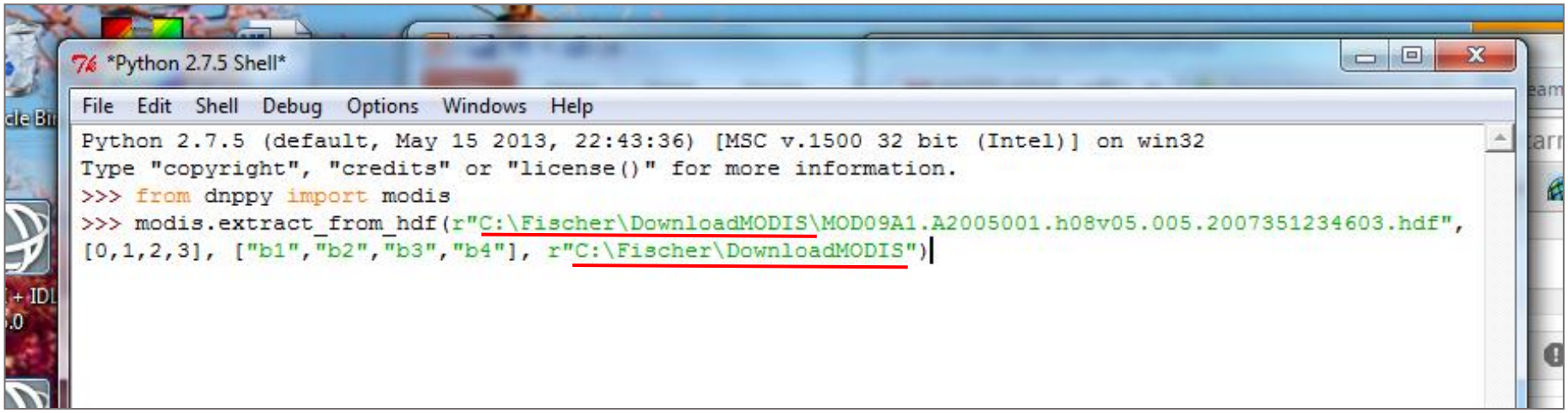
An NDVI is a graphical representation of vegetation health derived from remote sensing data. Data are normalized from 1 to -1, with the higher values representing healthier vegetation.



Data Acquisition

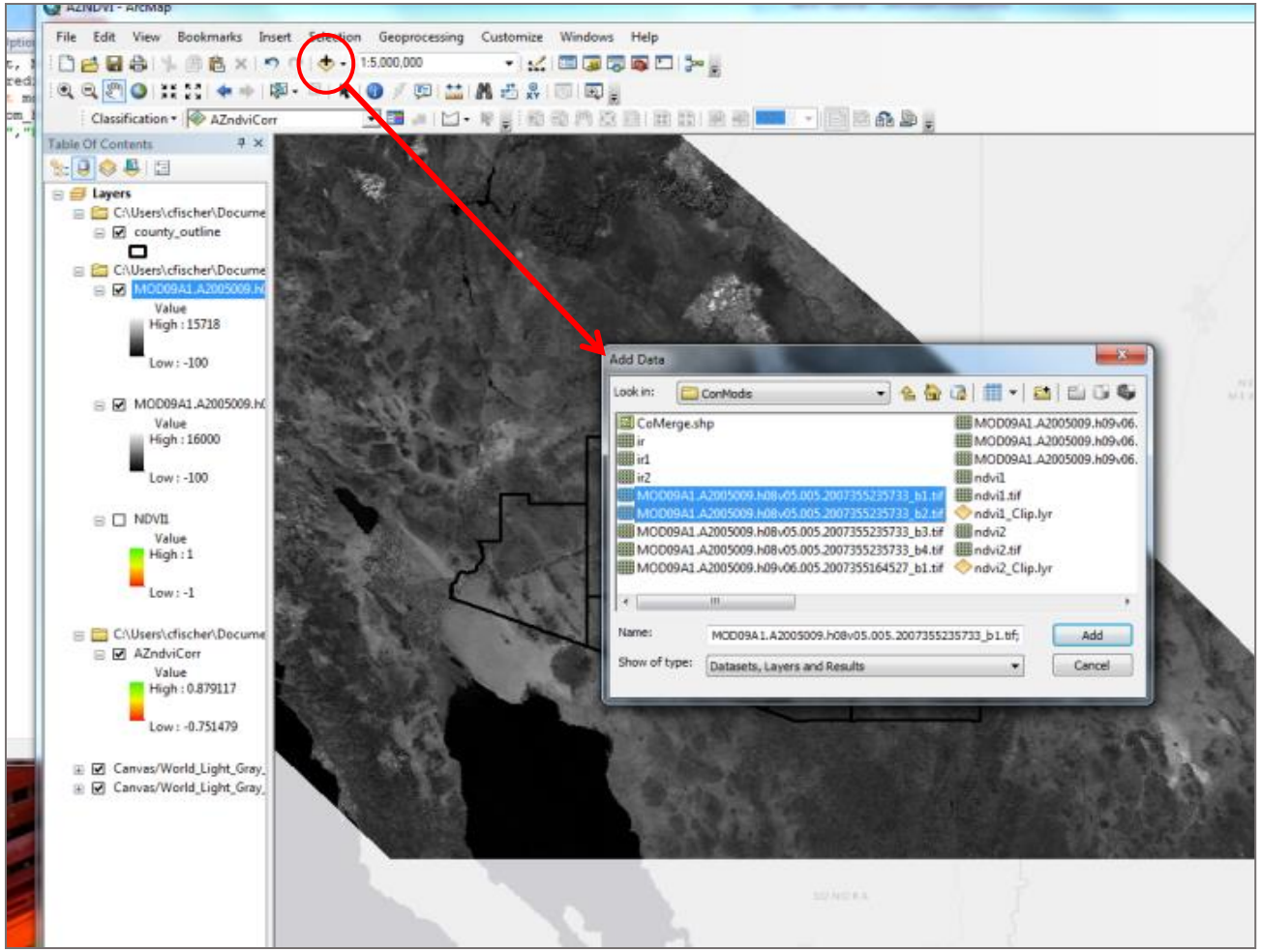
A python script was executed with the Dnppy code from DEVELOP. This will populate your selected folder with .tiff files that can be imported into ArcMap.

Note: Be sure to change the input and output file pathways accordingly, underlined below.



Con Tool

Add the Band 1 and Band 2 data into ArcMap

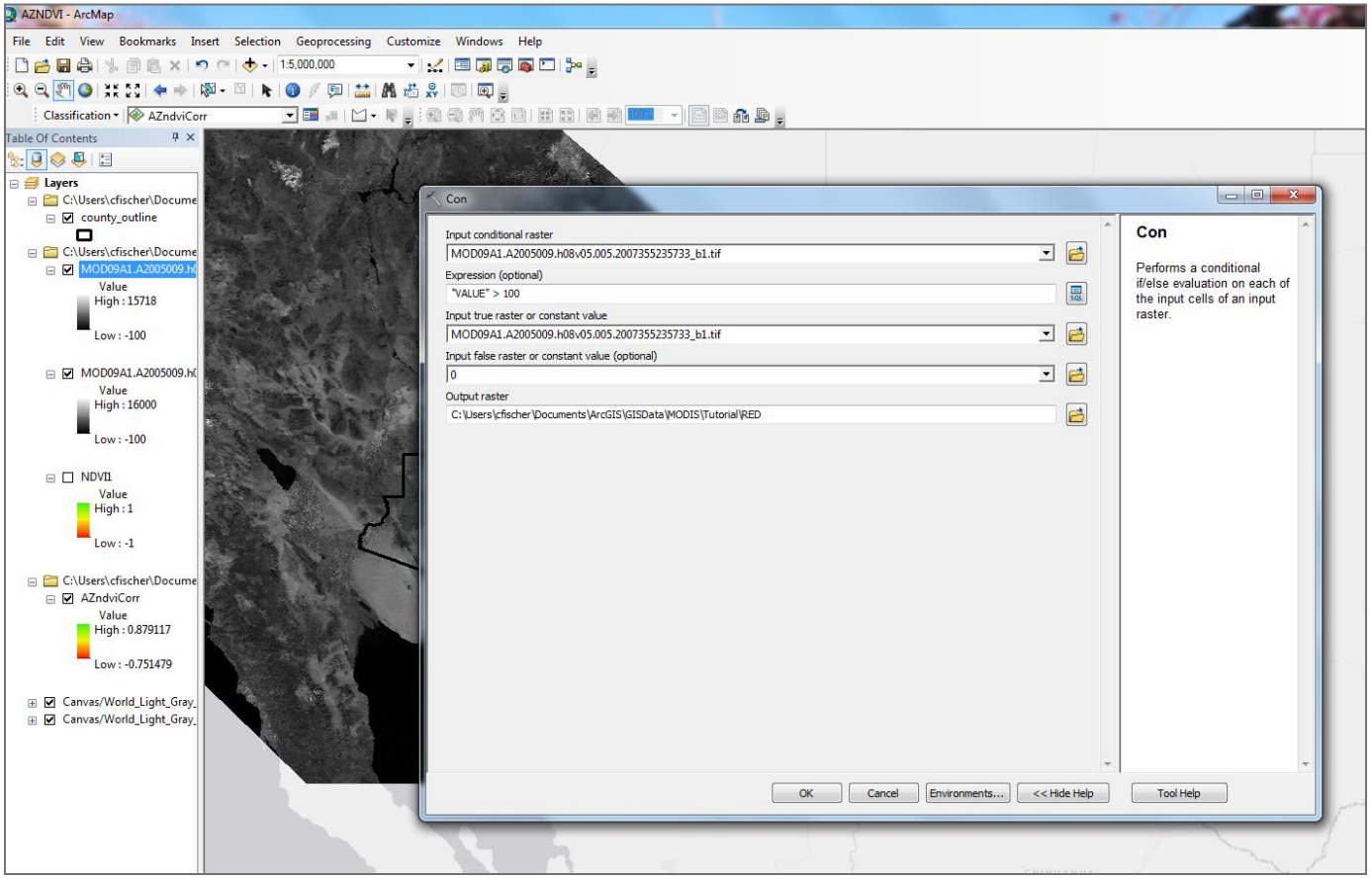


Con Tool (cont.)

Run the Con (Spatial Analyst) tool with the inputs shown for both bands

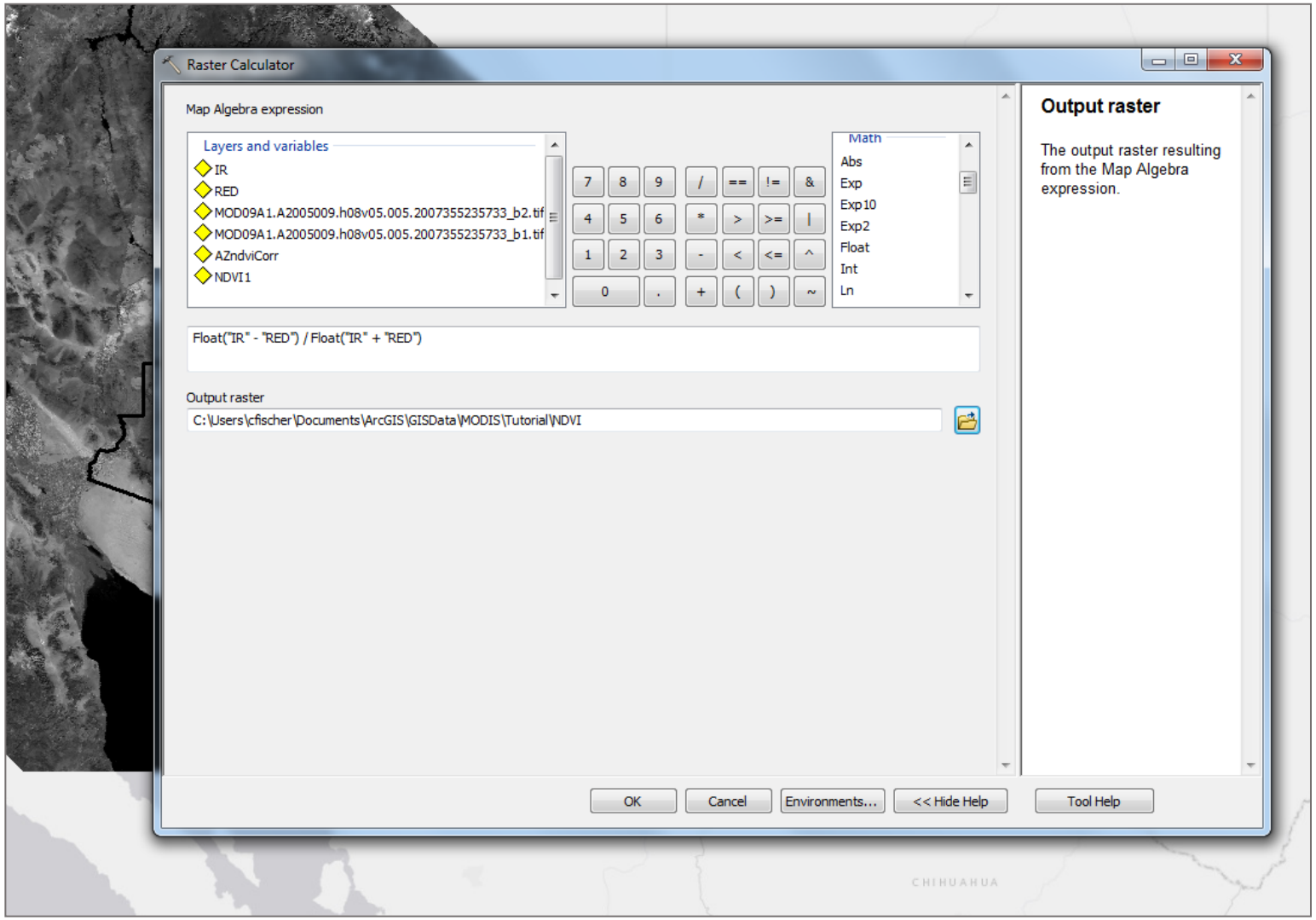
Band 1 = Red

Band 2 = Infrared



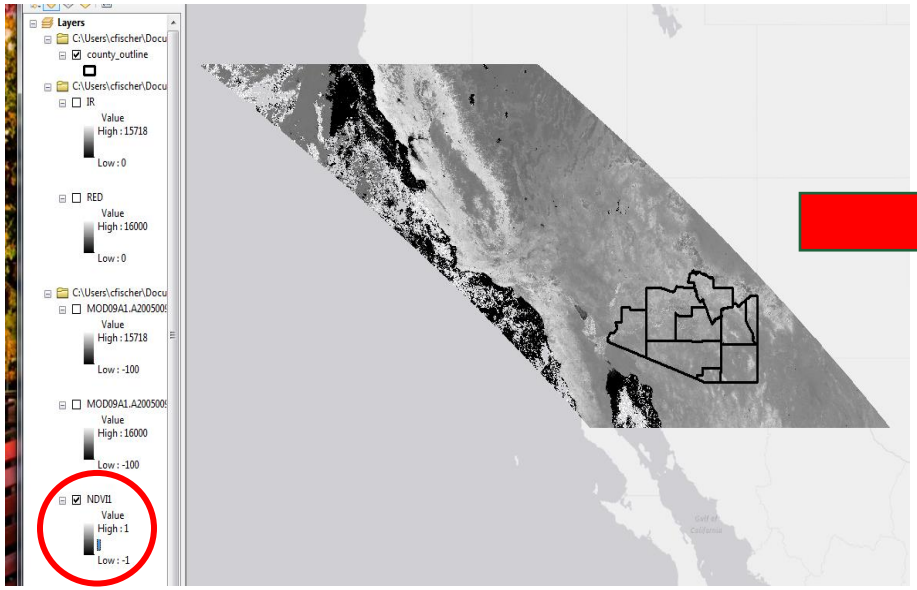
Raster Calculator Tool

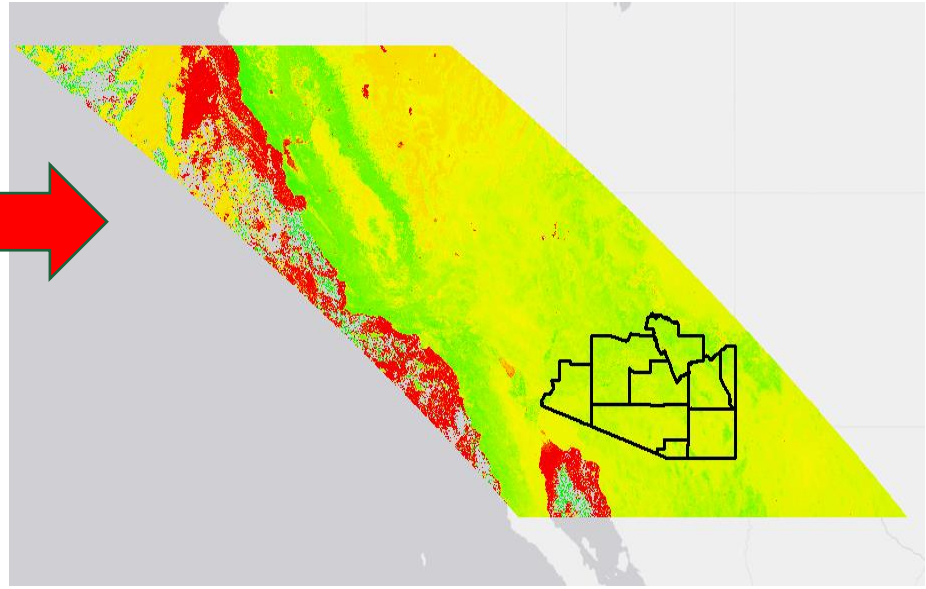
Run the Raster Calculator (Spatial Analyst) tool using the equation shown below



Output

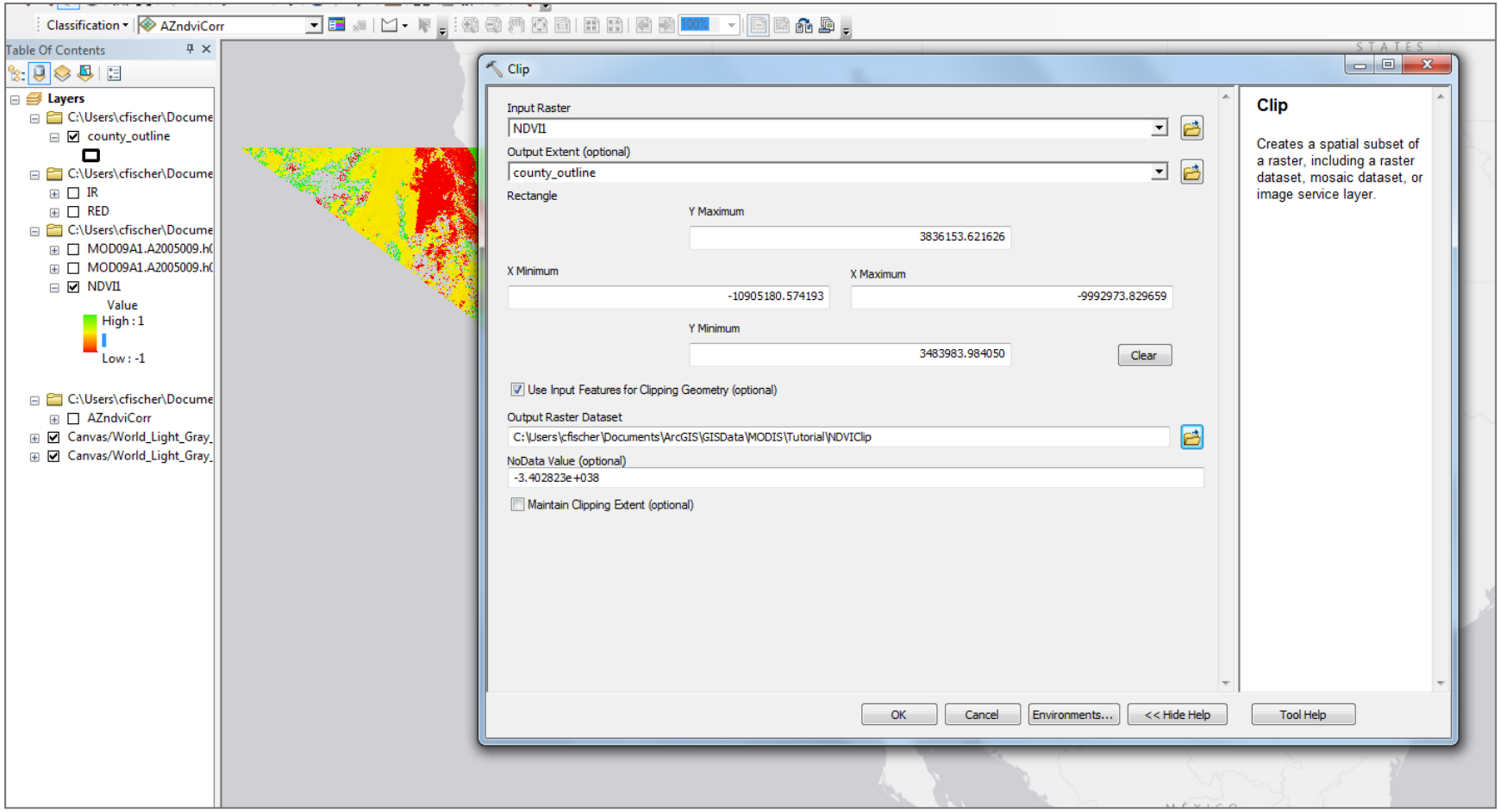
Shown below is the output raster. Changing the color ramp to Red-Green will show the traditional scale, with green indicating vegetation.





Clip Tool

Run the Clip (Data Management) tool, as shown to clip the NDVI to the study area



Final Product

This is what the final output should look like