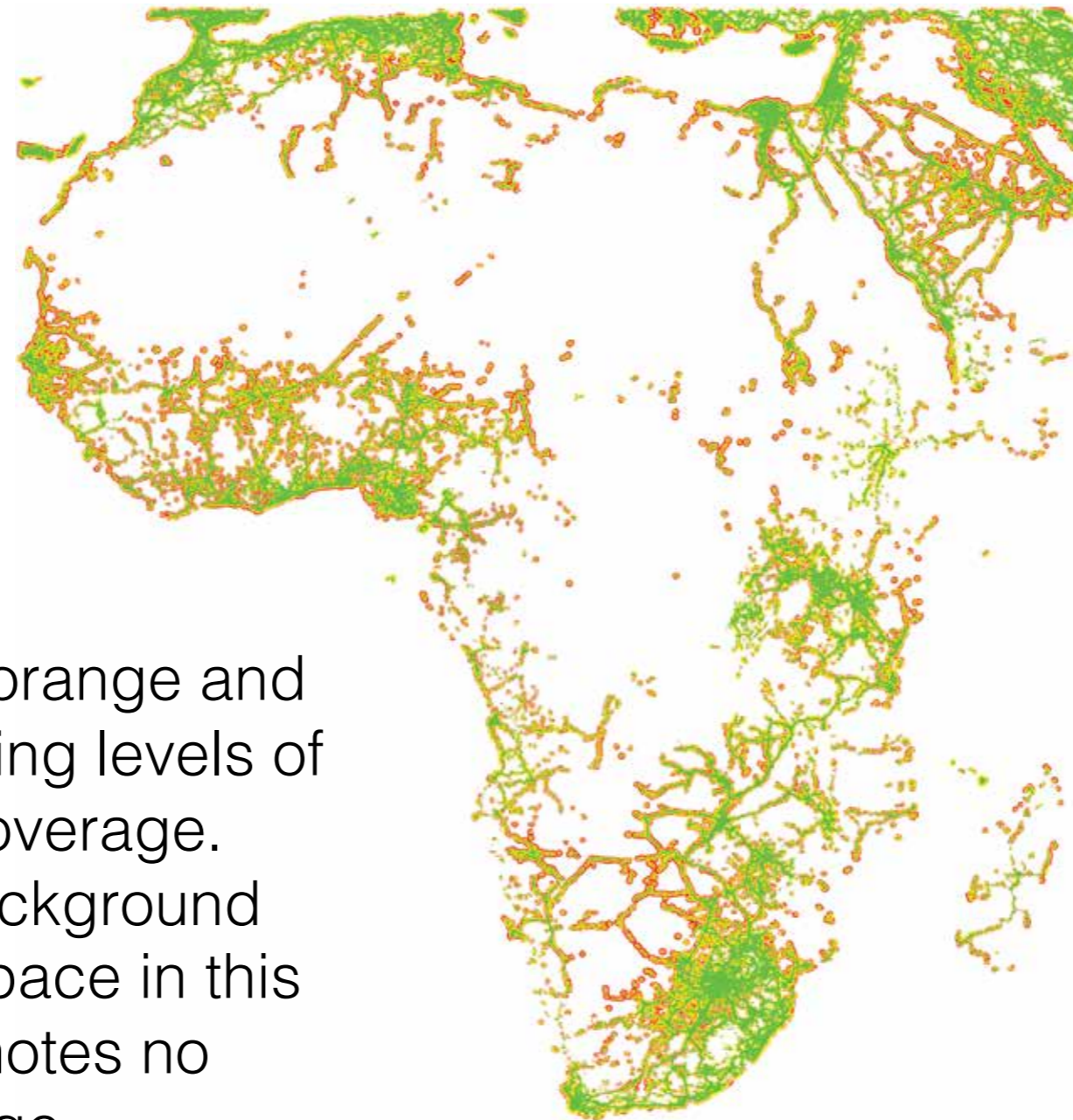


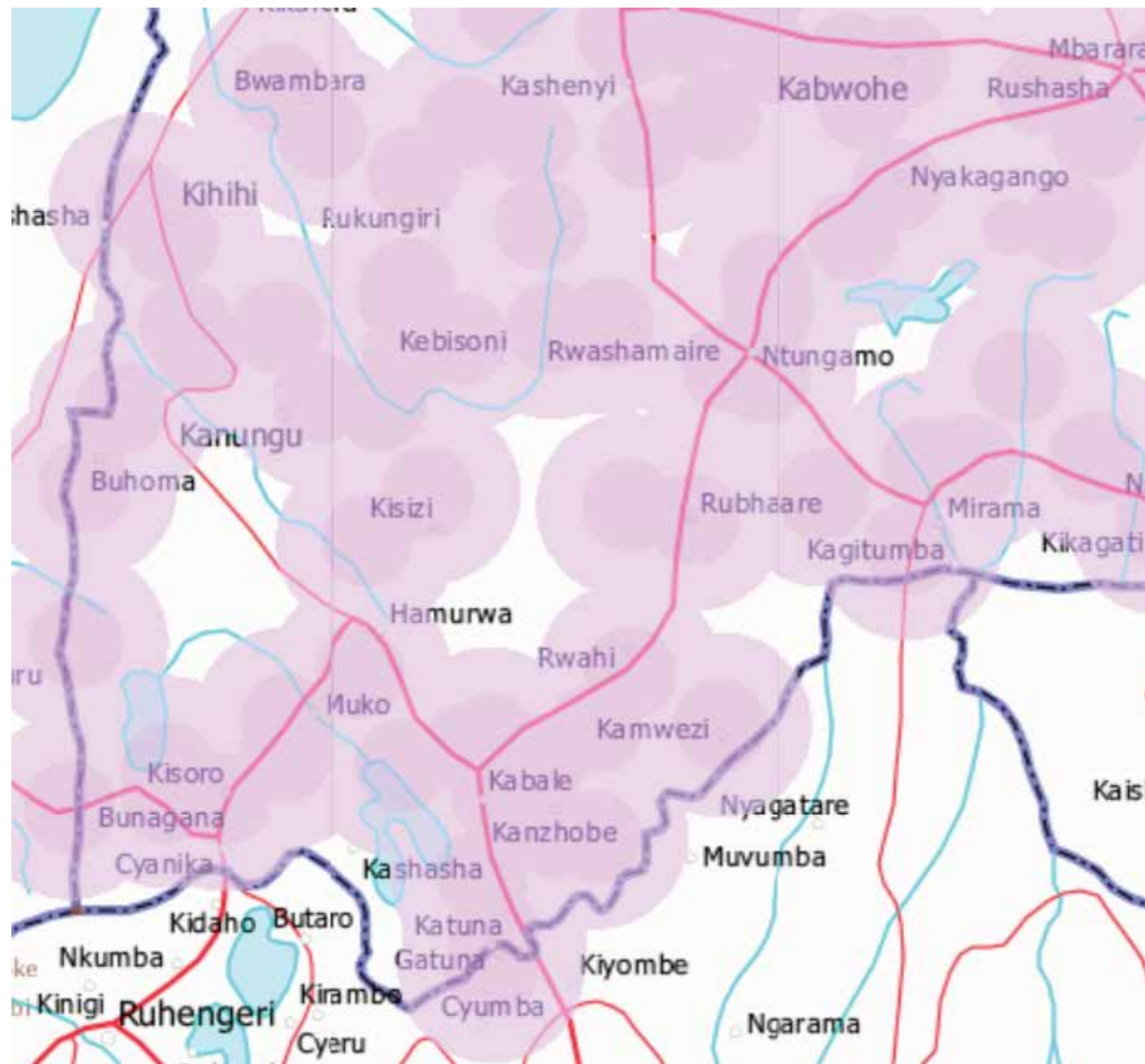
While Africa is moderately well covered in certain areas, hundreds of millions of people in Africa still lack connectivity.



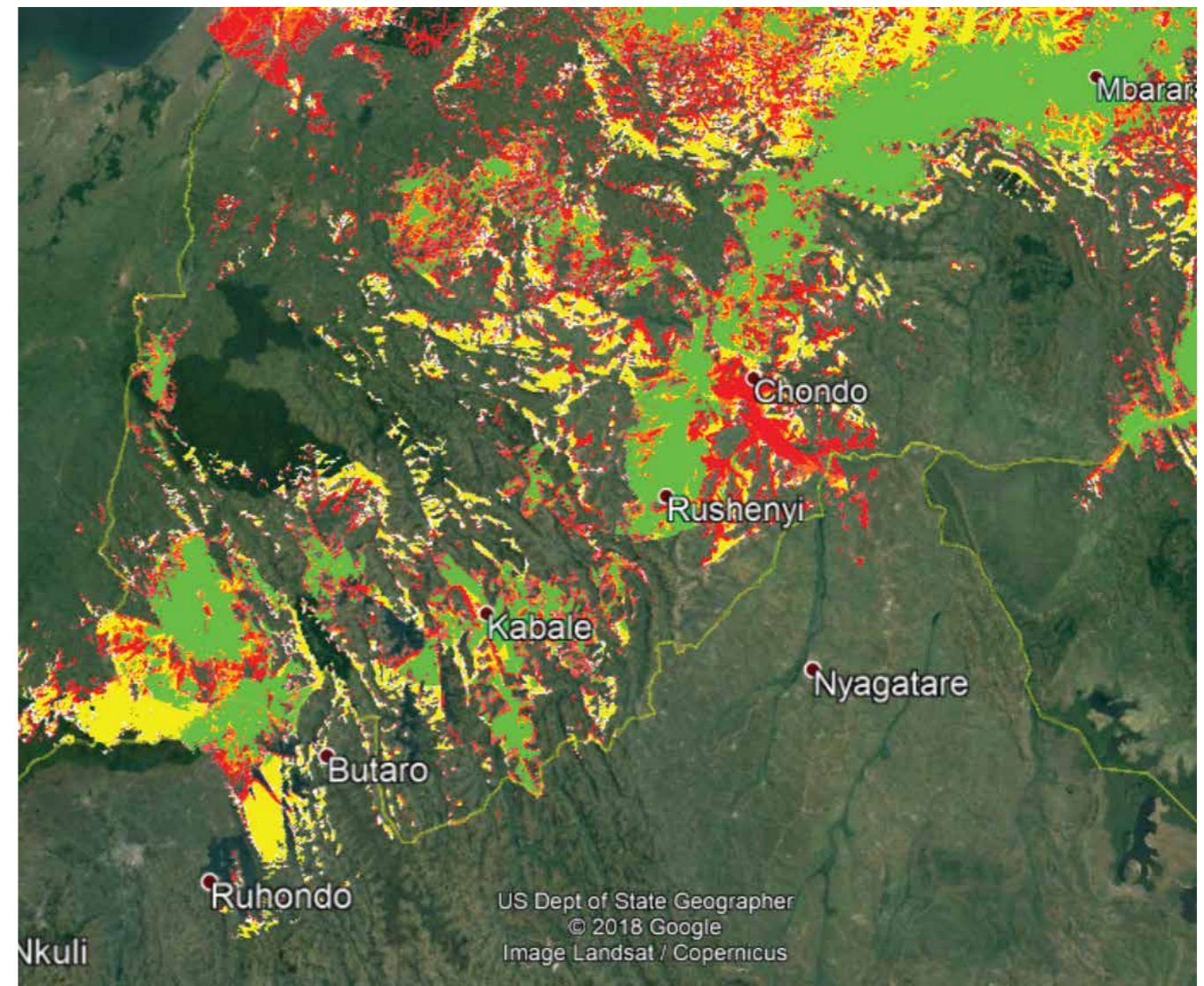
Green, yellow, orange and red denote varying levels of estimated coverage. Uncolored background space (white space in this picture) denotes no coverage.

Vanu uses “big data” and cloud technologies to enable large scale maps that have very high resolution

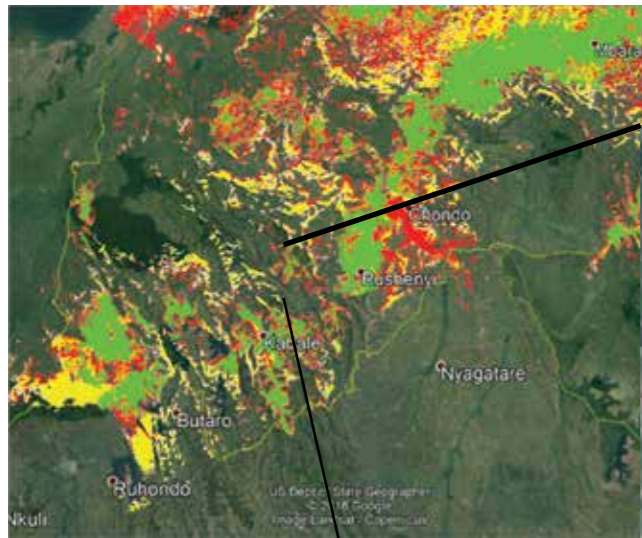
On the left, a map provided by a wireless industry body shows purported coverage of a single operator in southwestern Uganda between Butaro, Rwanda and Mbarara, Uganda. On the right is a map developed using Vanu technology showing the aggregate coverage of all operators in the area. The hilly terrain makes coverage difficult. Unfortunately, the physics of wireless propagation results in coverage of the peaks of surrounding hilltops and not the valleys in which many people live. See the next page for an example of such a village.



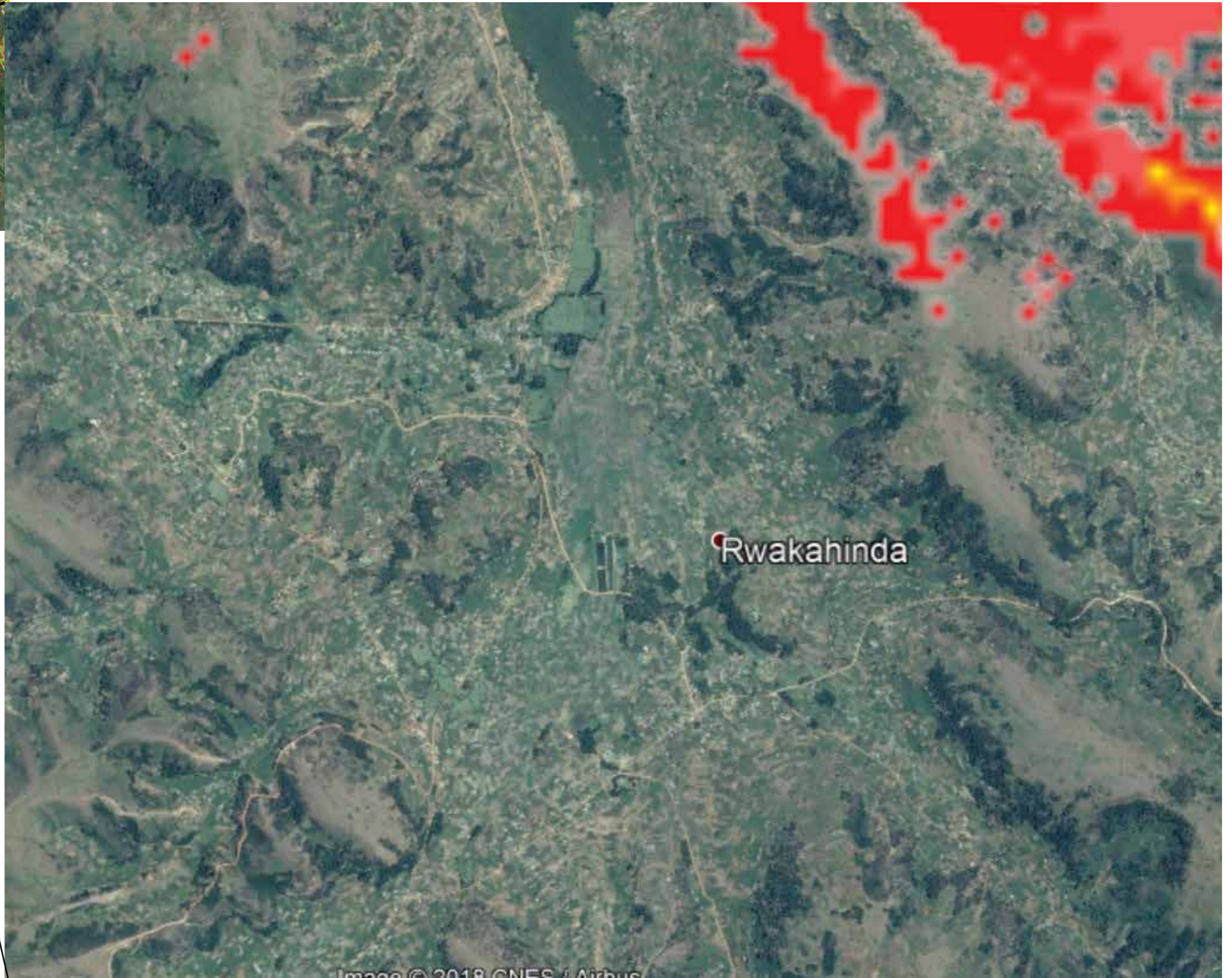
Lavender shades show purported coverage

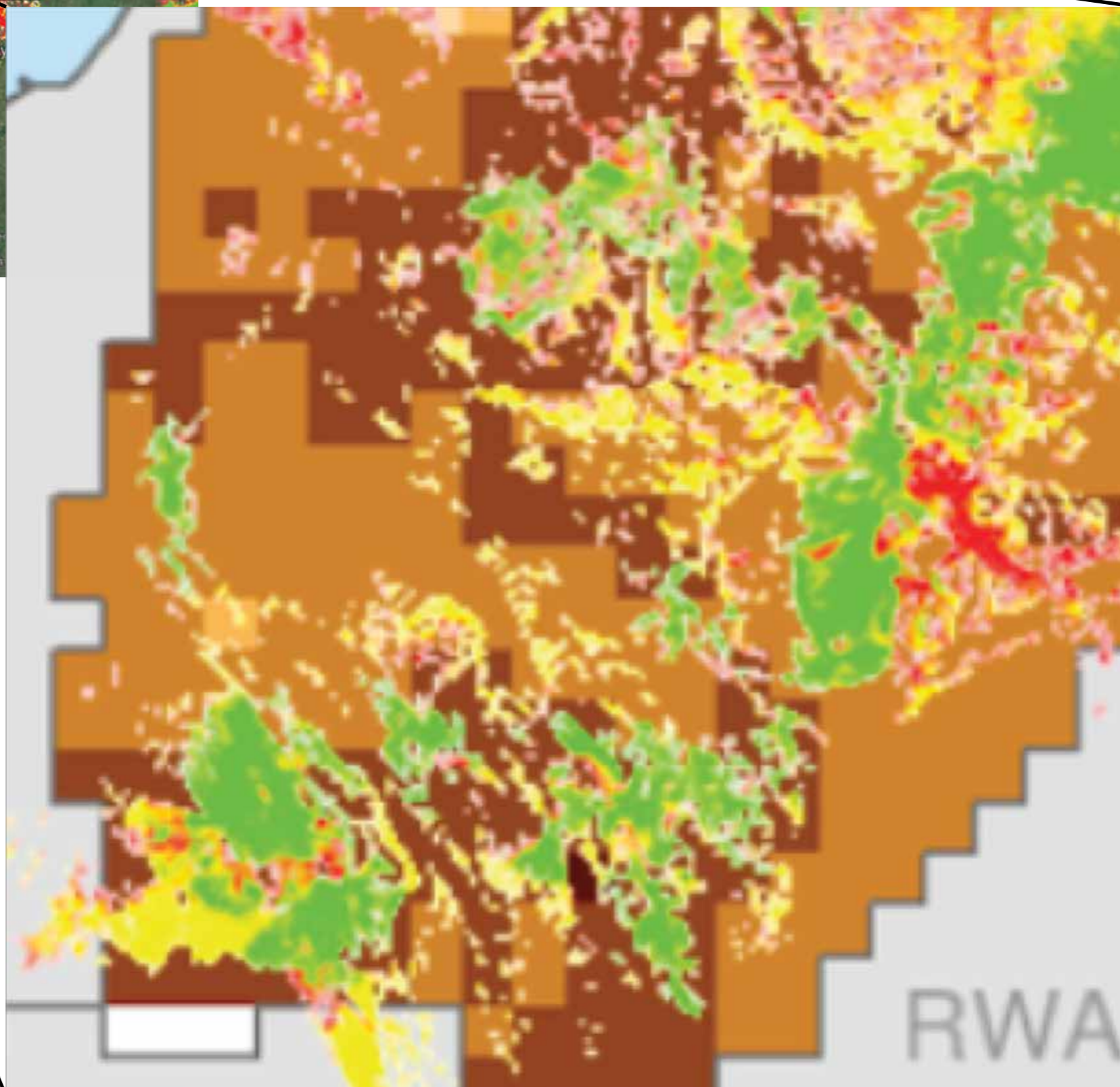
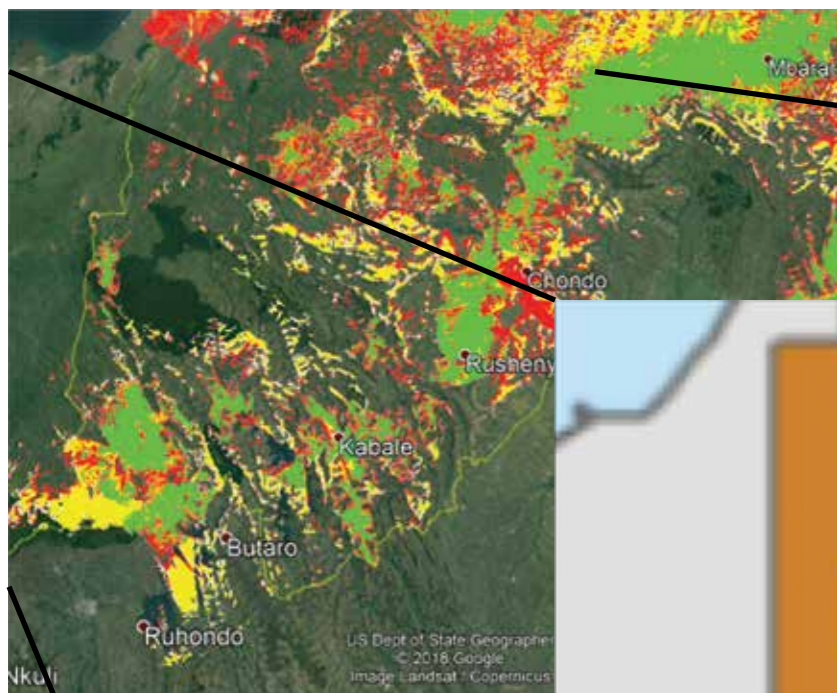


Lime green, yellow, orange and red show estimated coverage and the background (darker shades of green) shows uncovered terrain.



Rwakahinda is expanded to show the dense population residing in this 10km x 5 km image of the village and surrounding densely populated valley. Many similar valleys and villages surround Rwakahinda.





The map to the immediate right shows population density in the area as the background with shades of brown denoting different population density: 25-249/km² (light brown), 250-999/km² (dark brown).