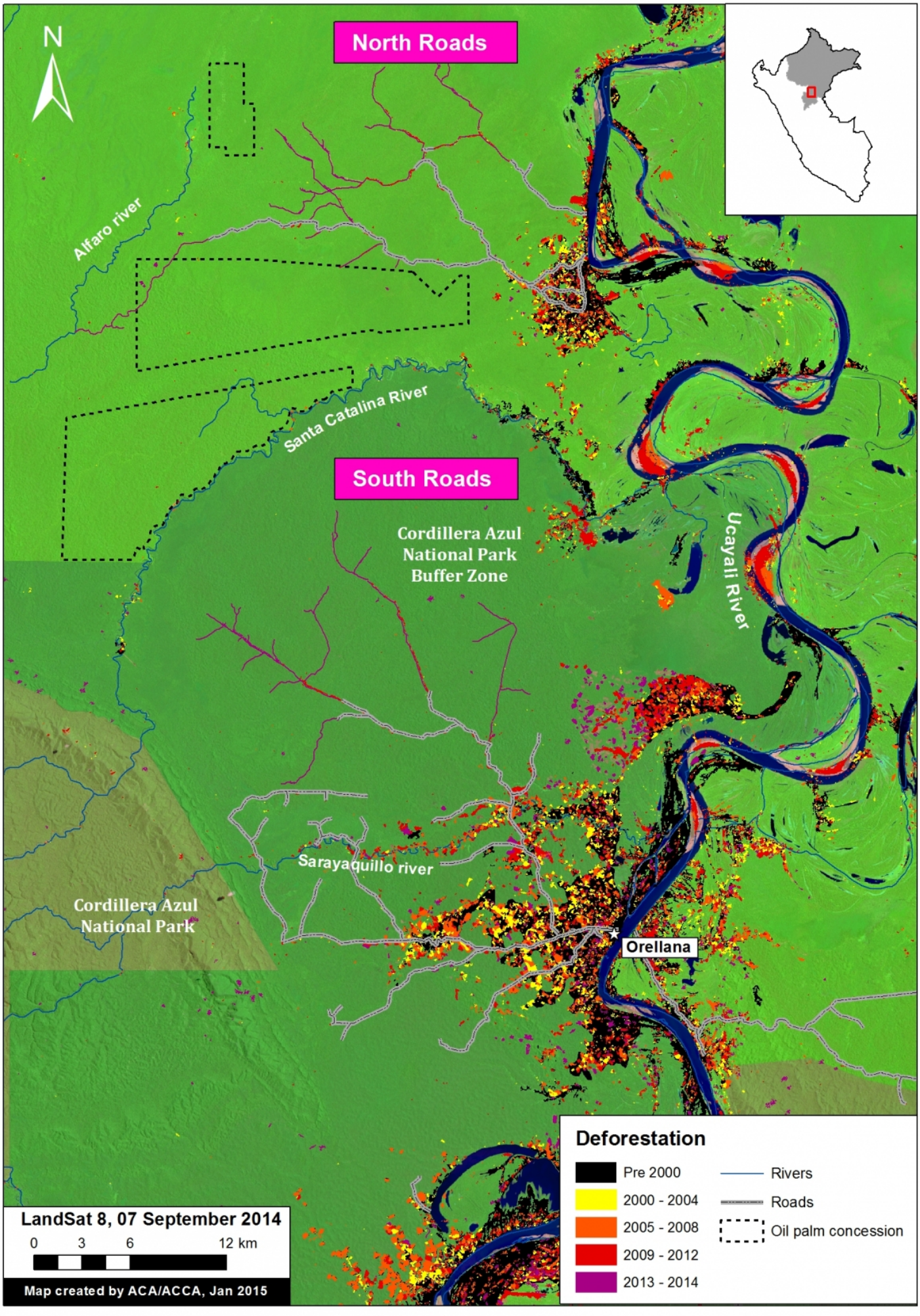
Image #3: Detection of New (Logging?) Roads in the Peruvian Amazon

Image of the Week #3 shows the rapid proliferation of two new road networks in the northern Peruvian Amazon (Department of Loreto). Most notably, it highlights the construction of nearly 150 km of new roads, possibly illegal logging roads, through mostly primary forest between 2013 and 2014. One of the roads is within the buffer zone of the Cordillera Azul National Park.

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Image of the Week 3. Detection of new road construction in the northern Peruvian Amazon (Department of Loreto) Key data sources: MINAM, Hansen/UMD/Google/USGS/NASA, USGS, SERNANP, Grupo Palmas, GOREL.

Map Description

Background map is a Landsat 8 image (30 m resolution) from September 7, 2014. Green indicates forest cover. Our analysis has demonstrated that **much of this forest cover is primary forest**. Data is from USGS.

Black indicates areas that were deforested as of 2000 according to data from the Peruvian Environment Ministry. ***Yellow, orange, and red*** indicate areas that were deforested from 2000 to 2012 (each color covers a four year period) (Hansen MC *et al*. 2013 Science 342: 850–53; Data download).

Purple indicates areas that were deforested between 2013 and 2014 based on our analysis of Landsat imagery using CLASlite forest monitoring software. Note the two new road networks, labeled North and South, respectively, **to the west of the Ucayali River**.

Black dashed lines indicate planned oil palm plantations. We obtained this data from Environmental Impact Studies and the Regional Government of Loreto (GOREL).

Protected areas data is from SERNANP. Note the different shades of green to differentiate the protected area and its respective buffer zone.

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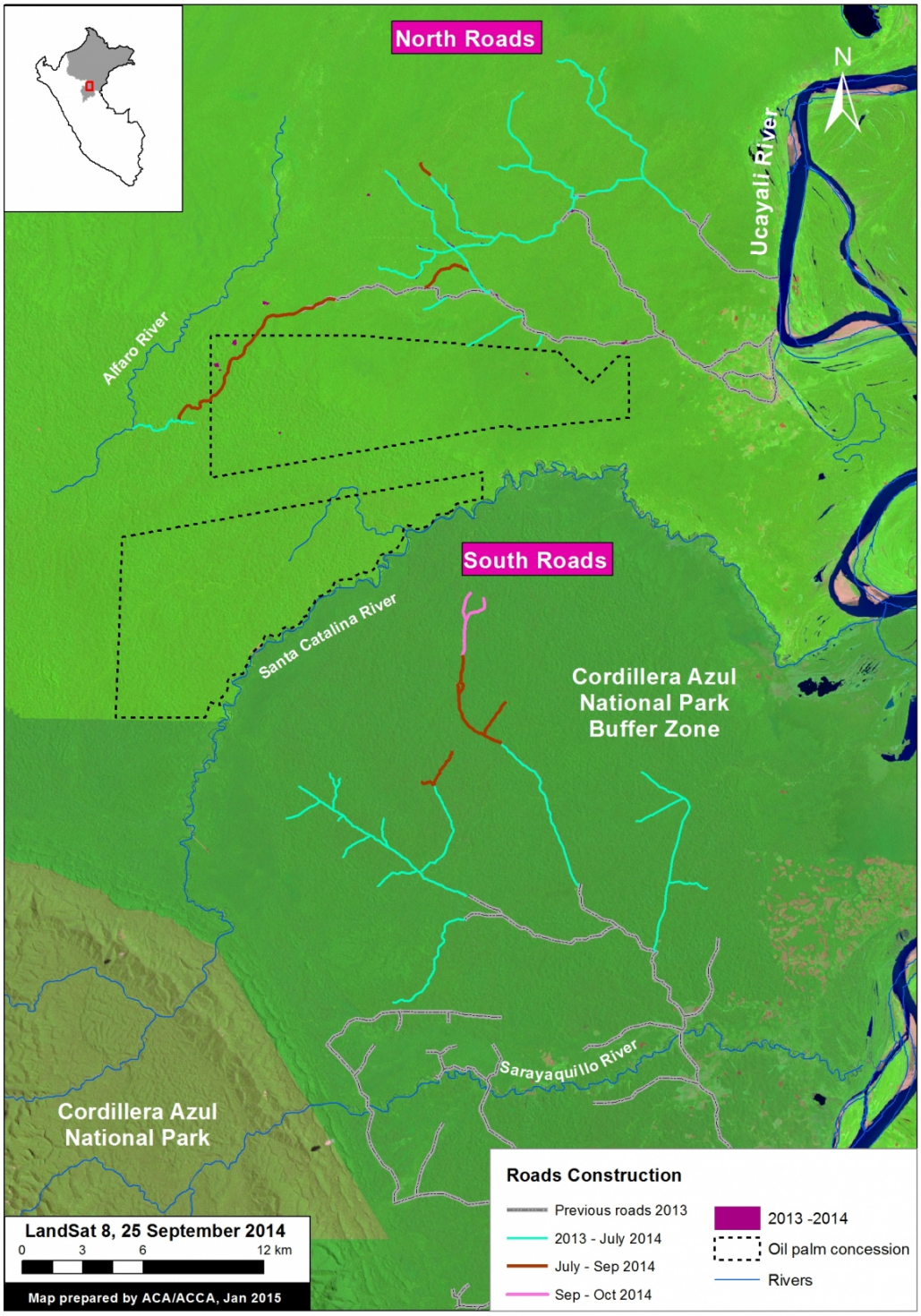


Image 3b. Road construction time-series. Key data sources: USGS, SERNANP, Grupo Palmas.

Construction of New Roads

We color coded the segments of road by construction period: ***Grey*** indicates road segments constructed between 2009 and 2012. ***Teal*** indicates road segments constructed between January 2013 and July 2014 (117.3 km). **Dark-o*range*** indicates road segments constructed between July and September 2014 (25.9 km). ***Pink*** indicates road segments constructed between September and October 2014 (4.8 km).

In sum, 148 km of new roads was constructed in this area between January 2013 and October 2014 (76.24 km in south and 77.38 km in the north).

The southern network is characteristic of a logging road in that it does not have a clear destination and instead just keeps extending and branching deeper into closed-canopy forest.

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The northern network is more puzzling in that it crosses a proposed palm oil concession (Grupo Romero's Tierra Blanca project) and terminates at the Alfaro River. Also note several areas of recent deforestation near the road in the northwest corner of the oil palm concession.

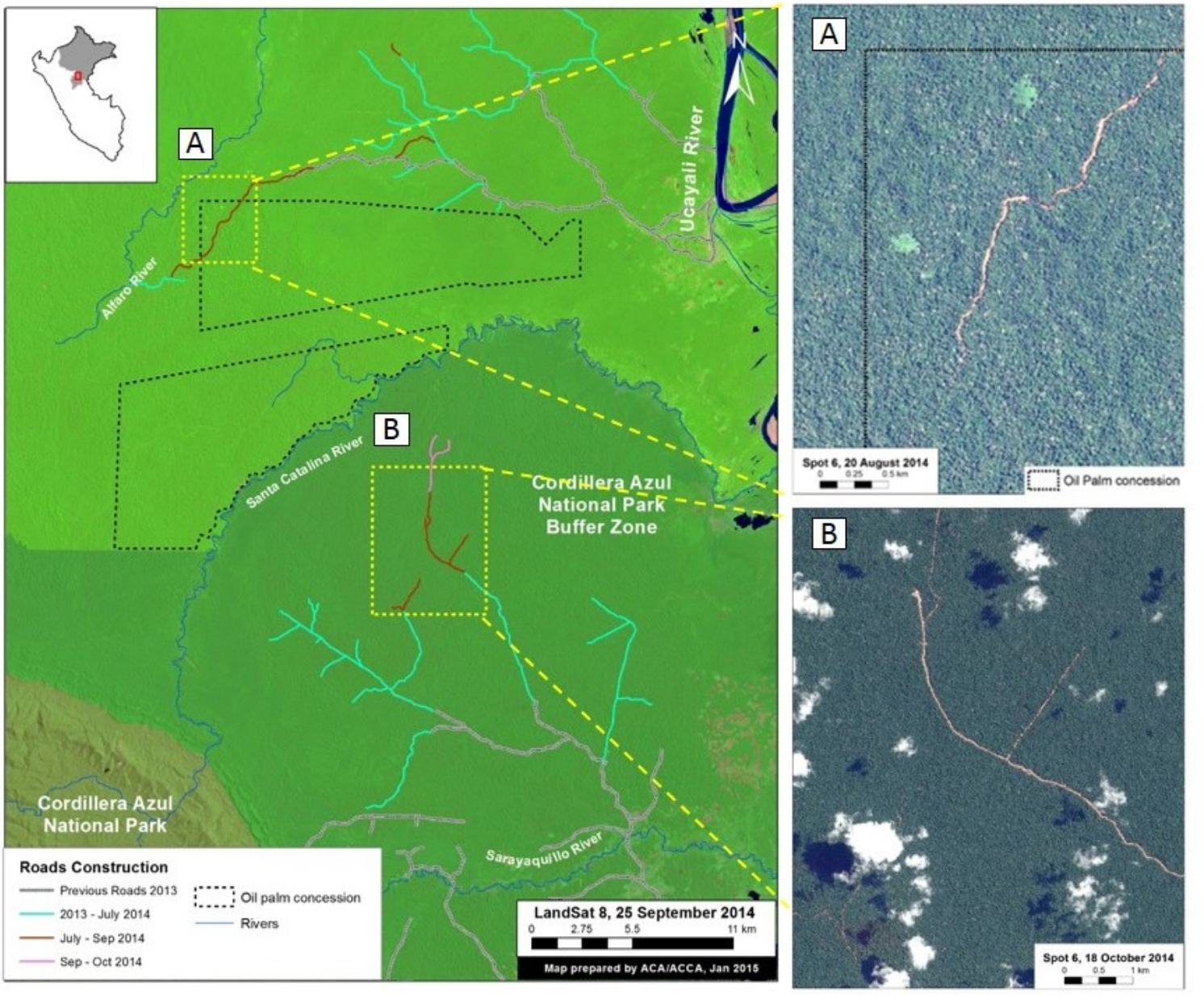


Image 3c. High resolution SPOT 6 images (1.5 m resolution) of portions of the northern and southern road networks. Key data sources: USGS, SPOT 6.

High-resolution zooms

Panel A is a high resolution SPOT 6 image (1.5 m resolution) from August 2014 of a portion of the northern road network.

Panel B is a high resolution SPOT 6 image (1.5 m resolution) from October 2014 of a portion of the southern road network.

Citation

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https://www.maaproject.org/2015/04/detection-of-new-road-construction-in-southern-loreto-peru/

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