

#### CARTOGRAMS

# GLOBAL TREE COVER

### BY BENJAMIN HENNIG

There is a long tradition in the emotional relationship between people and forests. We can get an understanding of the extent of the global tree cover from satellite sensors such as NASA's MODIS. Calculating the average tree cover in an area allows us to estimate the extent of the world's forests. Forest landscapes can be mapped in various ways and is often done in conventional maps. However, much of the land area is not covered by forest and the few remaining untouched forest landscapes keep shrinking while deforestation continues.

This visualisation of the global tree cover shows the quantitative distribution of the world's forests. In a 'gridded cartogram', each of the grid cells shown covers an equal physical space and is then resized according to the total amount of space covered by trees in this area. Additional topographic features showing the elevation similar to normal topographic maps (from green for the lowest lying areas to brown and white for the highest regions), and the surrounding bathymetry of the world's oceans remain as guiding elements in this cartogram. While conventional maps are 'equal area', 'equal distance' or other projections, this map gives us a new visual understanding of the distribution of the world's forests while preserving the geographical accuracy by retaining the topology between each of the grid cells.

The visualisation is an image of the fragile forestlandscapes which make up approximately 31 per cent of our land area. They are the world's lungs, providing home for a multitude of the most complex and diverse ecosystems on the planet. However, they are also the basis for the livelihoods of many people, and an important economic factor, and are therefore under threat of deforestation – especially in the tropics – which make up a lot of the spaces in this map.

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#### LIVESTOCK

## Cold cuts for a new Cold War

I want to reassure you that you won't notice a lack of high-quality beef. You are used to eating in good restaurants and you'll continue doing so. *Bon appétit*! Those are words that Russia's Minister for Agriculture, Nikolai Fyodorov, may come to regret.

Fyodorov was announcing Russia's ban on agricultural imports from the US, EU, Canada and Australia in retaliation for sanctions over Russia's action in Ukraine. In 2013, Russia imported \$1.3billion in foodstuffs from the US alone, including \$1million of beef, according to the US Department of Agriculture.

Russia's ban on agricultural products is slated to last for 12 months, and domestic producers are struggling to fill the gap. Local government in the Siberian region of Chukotka has replaced imported meat with reindeer in schools and hospitals. Reindeer meat is environmentally clean, and that means that neither foie gras, Spanish *jamón* or any other delicacy can compare with it,' claimed a report on the Rossiya 24 news channel.

Food prices are a concern for the region, and the local government has ordered price reductions on 'socially important' foodstuffs including chicken, ham, butter and flour, according to local governor Roman Kopin. The region is closer to Alaska than Moscow, and relied heavily on US food imports. Governor Kopin hopes that the 190,000 domesticated reindeer will make the shortfall in the 604 tons of meat the region is estimated to need this year. Russian reindeer meat production dropped after the Soviet Union fell, with 25,000 tons produced in 1990 down to 7,400 tons in 2001.

In winter, wild deer can be hunted,' said Kopin. 'This can be a great help in improving food security in the region.' The governor expects the wild meat to be sold to logging camps and smaller settlements. The hunting season for wild reindeer lasts until 28 February, 2015. Whether Minister Fyodorov will be tucking into a reindeer steak anytime soon remains to be seen.

