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No “Abrupt increase in harvested forest area over Europe after 2015” – How the misuse of a satellite-based map led to completely wrong conclusions

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In a recent *Nature* article, the satellite-based Global Forest Change (GFC) map was used to estimate the yearly harvest area in each of the EU26-states over the period 2004 to 2018 (Ceccherini et al. 2020). Finland and Sweden were identified as the countries with the largest harvest increases and the biggest effect on the EU’s climate policy strategy. Here, we employ more than 45,000 field observations from the Finnish and Swedish national forest inventories as reference observations to analyze the accuracy of GFC data. We find that harvested area increases only marginally, if at all, after 2015. What did increase abruptly after 2015, however, was GFC’s sensitivity to detect harvested areas and thinnings.

The results of the *Nature* article are therefore a consequence of an inconsistent time series in GFC due to a change in the mapping algorithm or the sensor system and are thus both incorrect and misleading. The article is thus a good example for how wrong results based on satellite data can be, if no adequate estimators utilizing reference data are used.

References

Ceccherini, G. et al. Abrupt increase in harvested forest area over Europe after 2015. *Nature* 583, 72-77 (2020).