Supplementary information for

# Tree cover in Central Africa: determinants and sensitivity under contrasted scenarios of global change

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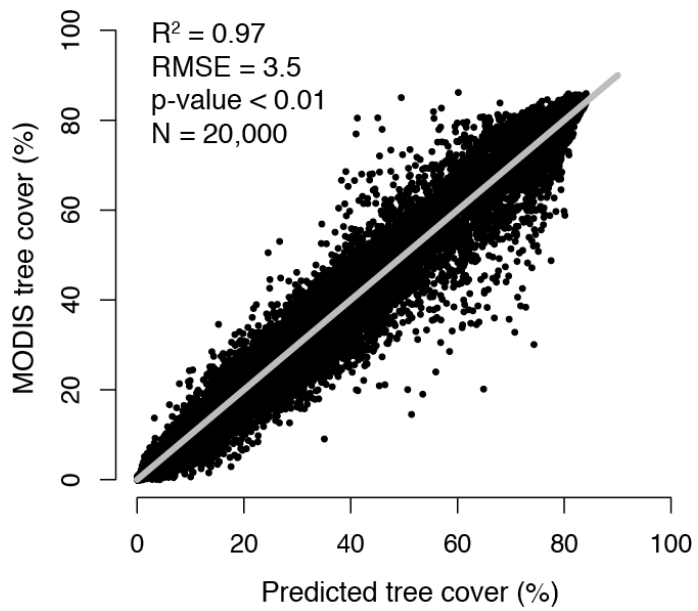[4] Département de Géographie, Université de Montréal, Montréal, Québec, Canada.

Fig. S1 – Predicted tree cover vs. MODIS tree cover for 20,000 points of the validation
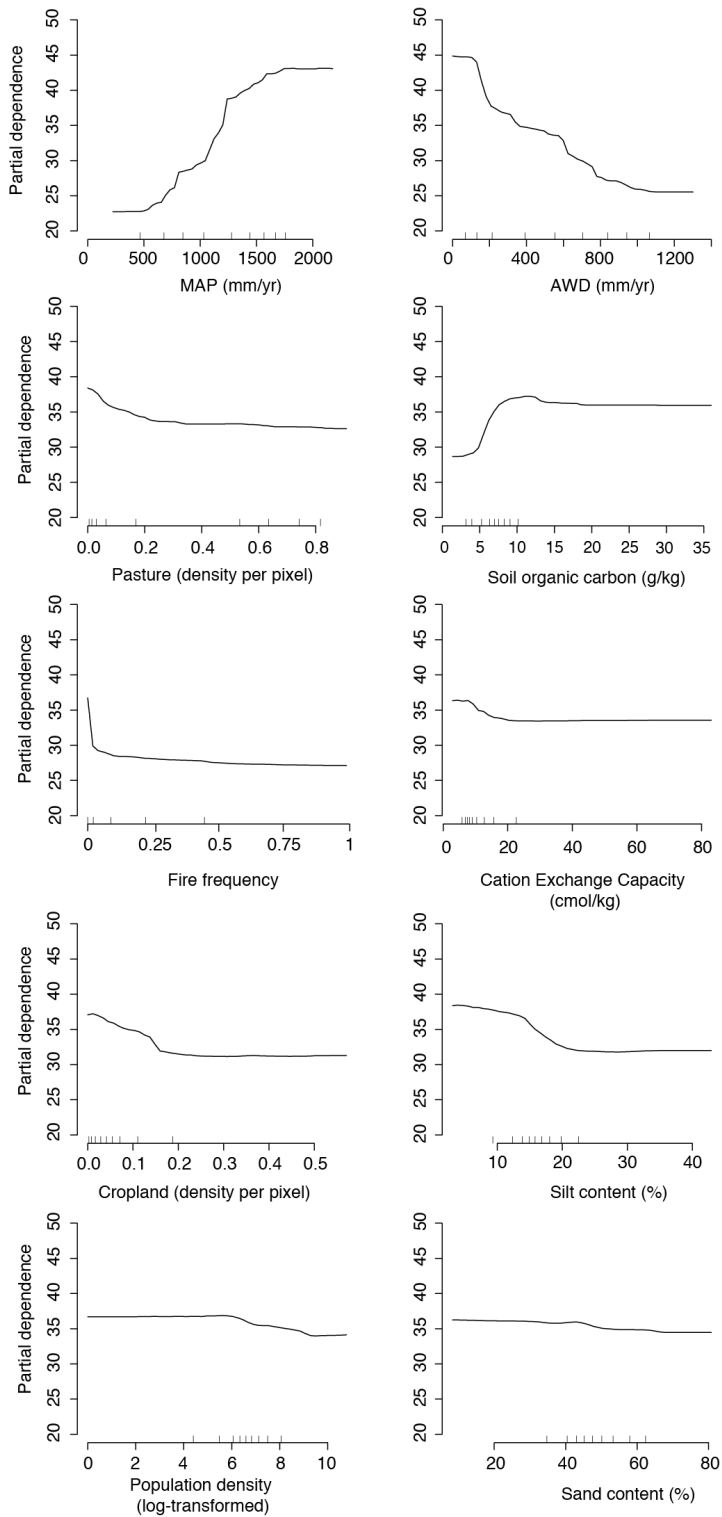
dataset.

Fig. S2 – Partial dependence of the variables to the tree cover as predicted by the model.
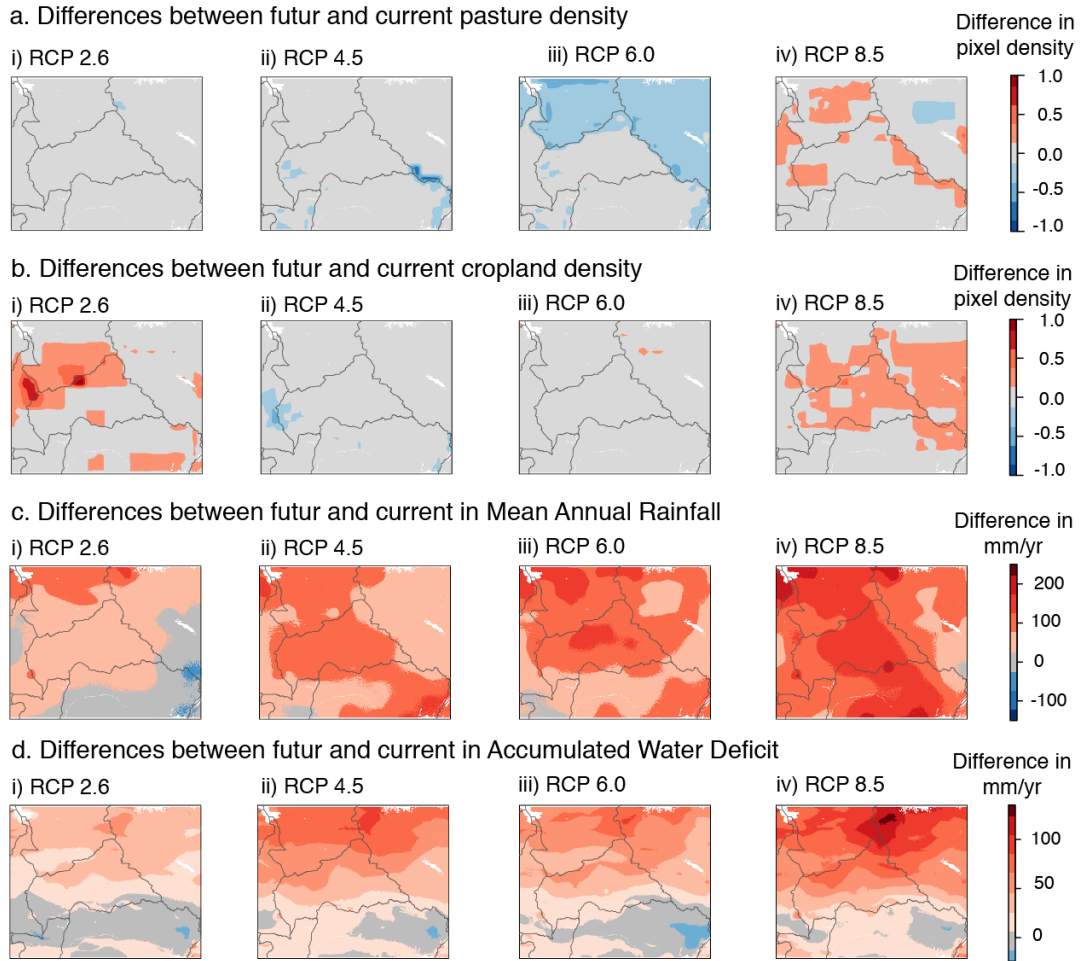
a. Differences between futur and current pasture density

i) RCP 2.6    ii) RCP 4.5    iii) RCP 6.0    iv) RCP 8.5

Difference in pixel density

b. Differences between futur and current cropland density

i) RCP 2.6    ii) RCP 4.5    iii) RCP 6.0    iv) RCP 8.5

Difference in pixel density

c. Differences between futur and current in Mean Annual Rainfall

i) RCP 2.6    ii) RCP 4.5    iii) RCP 6.0    iv) RCP 8.5

Difference in mm/yr

d. Differences between futur and current in Accumulated Water Deficit

i) RCP 2.6    ii) RCP 4.5    iii) RCP 6.0    iv) RCP 8.5

Difference in mm/yr

Fig. S3 – Major changes in climatic and anthropogenic predictors for 2070 regarding the four RCPs. The maps were generated using R version 3.1.3 [1].
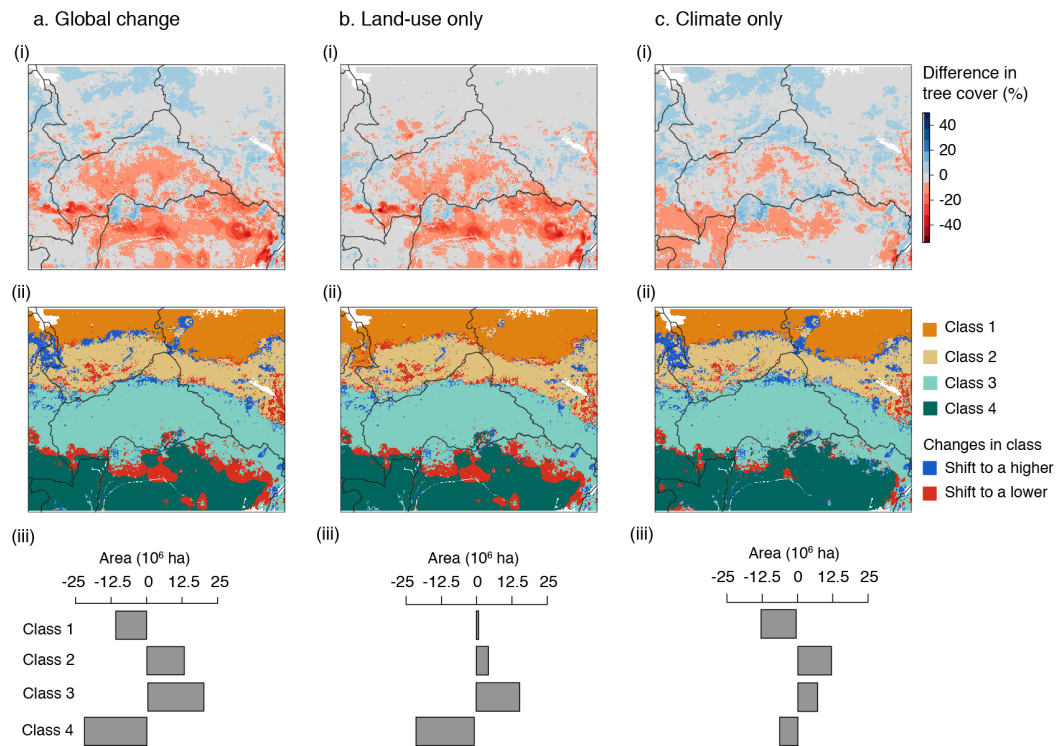
Fig. S4 | Changes in tree cover and classes' spatial distribution for RCP 8.5. The first panel represents differences in tree cover between simulated future and current tree cover values (i), the second panel represents the spatial distribution of the four vegetation classes and their shifts for 2070 (ii), and the third panel represents the changes in area occupied by the four vegetation classes in 2070 (iii) for the global change (a), land-use change only (b) and climate change only (c). The maps were generated using R version 3.1.3 [1].
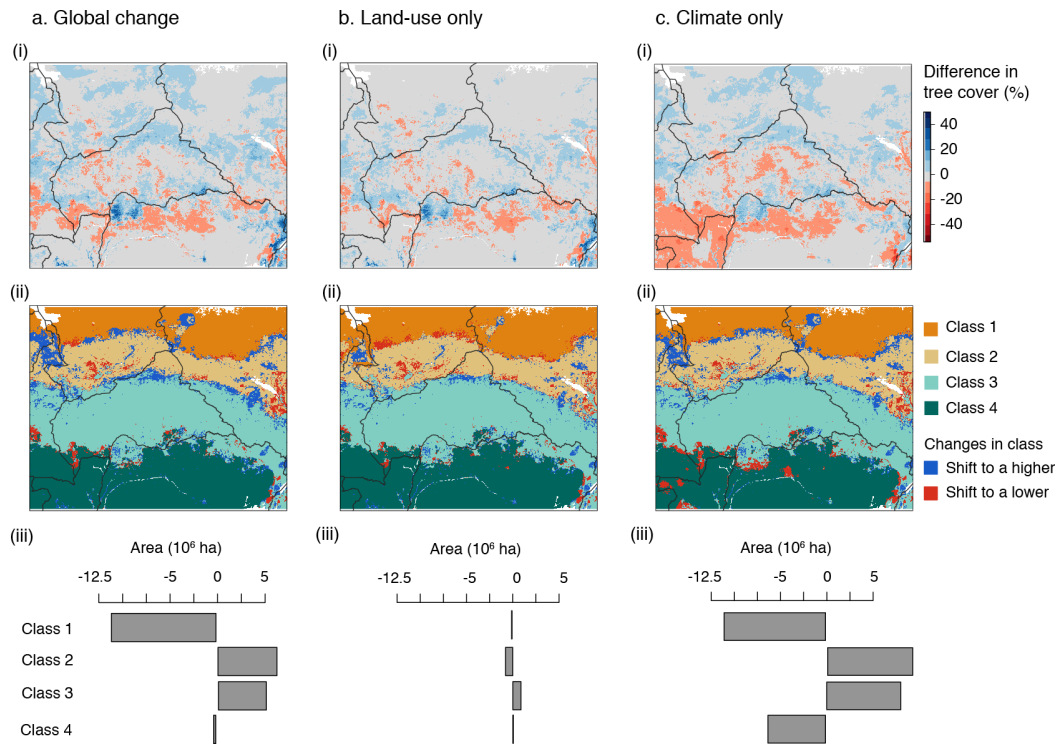
Fig. S5 | Changes in tree cover and classes' spatial distribution for RCP 6.0. The first panel represents differences in tree cover between simulated future and current tree cover values (i), the second panel represents the spatial distribution of the four vegetation classes and their shifts for 2070 (ii), and the third panel represents the changes in area occupied by the four vegetation classes in 2070 (iii) for the global change (a), land-use change only (b) and climate change only (c). The maps were generated using R version 3.1.3 [1].

1      R: A language and environment for statistical computing (R Foundation for Statistical Computing, Vienna, Austria., 2015).