

**WHAT IS MORE EFFECTIVE IN REDUCING DEFORESTATION:
‘MANAGEMENT REGIME’ OR ‘OWNERSHIP TYPE’?
A CROSS-COUNTRY DATA ANALYSIS FOR 1990-2015**

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Even though greenhouse gas emissions still continue to increase, forest cover throughout the world is not declining due to the fact that deforestation rates have stalled for the last five years at the global level leading to the outcome that global forest cover has remained stable over this period. However, a closer look at the regional data shows that there are wide disparities in the deforestation rates across regions. For instance, the Asian (South and south East Asian) deforestation rates are considerably higher than the rest of the world. This is especially evident for the last five years during which the annual rates of deforestation for the rest of the world is approx. 0.3 percent of the existing forest area but the corresponding figure for Asia is 0.5 percent of the forest area. Using empirical panel data models, we investigated this divergence of deforestation rates (measured in ha per year) statistically using potential associative factors and relate it to management regime and ownership type. We used a panel data estimation controlling for country-specific fixed (i.e. time-invariant) effects to estimate the partial coefficients of each factor on deforestation rates. We used a model combining the following variables: the ratio of forest area to total land, total employment in forestry sector, reforestation rate, and total areas under public and private ownership and the area of forest under managed plantations. The results of the model indicated that while both public and private ownership significantly reduce deforestation rates and the level of reduction of deforestation rate in the case of private ownership is twice that of public ownership under the model assumption of country-specific unobservable factors correlated with explanatory variables.