

2nd Euro Global Summit and Expo on

BIOMASS AND BIOENERGY

October 12-13, 2017 London, UK

The environmental services of biodiversity; a new approach to estimate carbon in above ground biomass in tropical forests

Henry Arellano Peña

Universidad Nacional de Colombia, Colombia

I present a new method generated in Colombia to estimate the environmental services of stored carbon in tropical forests with greater accuracy, as well as preliminary results of its application in the most biodiverse ecosystems of Latin America. New techniques are used to improve the interpretation of remote sensor data and it is shown that the analysis of biological distinctiveness of forests can provide added value to estimates of carbon per surface area. The importance of considering floristic and structural variables, the amount of carbon in tissues, wood density, and the architecture of sampled individual trees is emphasized, so that estimations of stored carbon are more precisely related to the quantification of deforestation and vegetation degradation. Using this approach, the bias in the estimated values of carbon obtained using traditional methods, not adequately adapted to the tropics, which can reach up to 40%, can be reduced considerably. These results are of tremendous importance for the quantification and assessment of the capital provided by nature of megadiverse countries in the pantropic such as Colombia.

henryarellc@gmail.com