ABSTRACT

Forested land in the world is about 28% of the global land area, accounting for 80% of the terrestrial carbon stored as biomass and soil organic carbon. Human activities, namely fossil fuel combustion and deforestation resulted in anthropogenic emissions into the atmosphere. Deforestation is being focused in this study in view of the role of forests as carbon stocks. Carbon is normally referred to as biomass of the tree. Several studies revealed that carbon is mostly sequestered in the aboveground part of biomass. As Southeast Asia has the highest level of deforestation, this study focused on observing carbon stocks in Malaysian forests. The conducted estimation of forest carbon stocks reveals carbon stock increment owing to the increment in the forested land. Yet, the forest transition process necessary for expanding the areas of forested land appears to be difficult to achieve. The economic development in the agricultural sector, land conversion for industrialization and settlement, expansion of wood-based industry and employment opportunities in the wood-based sector may hamper forest transition.

Keyword: Aboveground biomass; Carbon stocks; Deforestation; Forest