



The role of forests in global ecology

Delphine Shepherd*

Department of Agriculture, National University of Agronomy Toulouse, Auzeville-Tolosane Occitanie, France.

DESCRIPTION

Forests cover 31 percent of total area. The world's total forest area in 2010 is estimated to be just over 4 billion hectares, akin to a median of 0.6 ha of forest per capita. However, the world of forest is unevenly distributed. The five most forest-rich countries (the land, Brazil, Canada, the US of America and China) account for over half the overall forest area (53 percent), while 64 countries with a combined population of two billion people have forest on no over 10 percent of their expanse. These include variety of fairly large countries in arid zones, in addition as many small island developing states (SIDS) and dependent territories. Ten of those don't have any forests the least bit. The full area of other wooded land is estimated to be a minimum of 1.1 billion hectares, corresponding to 9 percent of the overall acreage. The whole area of other land with tree cover was reported to be 79 million hectares, but is undoubtedly much higher as information availability was limited.

Forests in global carbon cycle and global climatic changes

Forests, like other ecosystems, are littered with global climate change. In some places, impact is also negative, while in others they will be positive. Forests also influence climate and therefore the temperature change process. They absorb carbon in wood, leaves and soil and release it into the atmosphere when burned, for instance during forest fires or when forest land is cleared. Quantifying the substantial roles of forests as carbon stores, as sources of carbon emissions and as carbon sinks has become one in all the keys to understanding and influencing the world carbon cycle. Global forest resources assessments have the potential to contribute to, or substantiate, the estimates of the magnitude of carbon stocks and flows made by scientific bodies like IPCC. At the identical time, they complement and facilitate international reporting by countries on greenhouse emission emissions and removals under the UNFCCC.

Land use-cover change (LULCC) is one amongst responsible with the anthropogenic activities that contribute the threat of biodiversity and therefore the largest source of gas emissions

12-20% in tropics and world that influence the human wellbeing and disturb functionality of ecosystem. The aim of this review paper is to assess the LULCC causes, trends on forest land, consequences on plant species diversity and carbon stock and implications for sustainable landscape management in Ethiopia .Population growth, agricultural expansion, settlement, institutional factors, and weak policy enforcement and under value ecosystem were the most derivers of LULCC. At the regional, national and regional scales, these changes have profound influence plant species diversity and carbon stock potential for alterations of normal ecosystem function, particularly loss of plant biodiversity at genetic and species levels and rise of CO₂ in atmosphere .the results of these have direct impacts on livelihoods of local communities and sustainable development. Plant species diversity is reduced when land changed from a comparatively undisturbed state to more intensive use. like farming, livestock grazing, selective tree harvesting, etc. while carbon stock also loss thanks to unsustainable agricultural land practice, conversion of native forest to agricultural land and fewer managed of degraded land. To revere this synergic conservation strategy is usually recommended like implement sustainable forest management and agricultural practice like agro-forestry.