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Role of support practices for minimizing the vulnerability of land degradation in sub-tropical India: positive and negative impacts on land resources

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In the period of globalization, India a subtropical region, presently facing the acute problem of land degradation and it has severe impact on earth ecosystem as well as economy in defectively. Where India is a most populated agricultural based country, need a large volume of food grain production to control starvation condition with balancing between the need of the population and production yield. Though the conversion of fallow and forest cover area to agricultural land is increasing day by day but due to the people's daily needs and rapid growth of settlement is capturing productive land and ultimately amount of agricultural land remains in static. Thus, such consequent processes are declining soil fertility and land degradation have been witnessed in different forms of erosion as like sheet, rills, gullies, ravines etc. with the passage of time non tillage farming practices are accreting by replacing the tillage farming for maximizing the rate of production which causes the large scale soil erosion and make a source of sedimentation. The government and local stakeholders are already taken some initiatives for reduction of land degradation by some support practices with considering both structural and non-structural measures. The structural measures especially the engineering construction (check dam, percolation tank etc.) are installed or constructed without considering eco-centric approach.

The current research work has focused the light to evaluate the positive and negative impact of support practices on land resources. This study is mainly conducted on the basis of empirical field observation in different parts of the India. For reducing the rate of soil erosion, the plantation programme has been initiated and still going on as an accepted scheme. This valuable programme has been committed through the plantation of traditional vegetation and external species (*Acacia auriculiformis*, *Eucalyptus globulus*). The introduction of external species which are not only changing the properties of soil but also demolishing the soil fertility and soil moisture to cause land degradation. The local administrations are providing this type of external species for plantation programme without making the consciousness about the health of environment.

Key Words: subtropical region; conversion of fallow; land degradation; structural measures; plantation programme