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Short Communication

Forest and Soil: An Intrinsic Relationship

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Forest is pure, virgin and largest natural resources that harbor variety of flora and fauna that intensify ecosystem services. There is a great synergy between forest and soils. Soil is not less; it is another largest natural resource which plays major role in vegetational dynamics, structure, compositions and diversity. Soil supports other natural resources like forests, humans, animals etc. and make sustainable ecosystem for better environment. Looking on an intrinsic relationship among forests and soils, many questions revolve in my mind "How soil makes better forests?" Is there any synergy between forest and soil?" and "How both soil and forest makes sustainable environment?" These questions triggered my soul. It is cent percent true that a great link exist between forest and soil that enhance biodiversity which intensify ecosystem services and maintains soil-food-climate security for sustainable development [1]. There is two schools of thoughts; first is forest sheds leaf litter, bark, twig and other residues that can be decompose by soil inhabiting microbial populations and release essential nutrients and enhance SOC pools along with higher soil fertility. Second is, how these nutrients are utilized by extensive root system of higher plants which makes proper growth and development. Thus, we can see a great synergy exist between forest and soil which makes higher forest productivity, soil fertility, efficient nutrient cycling, enhance microbial populations, better rhizosphere biology which maintains food and nutritional security at global scale.

Today, GHGs including carbon are released due to deforestation and various other anthropogenic activities that lead to global warming. Illicit felling of trees, developmental projects involving mining activities, industrial development etc. enhance GHGs value in the atmosphere [2]. Forest and soils having greater sink of carbon i.e. they capture atmospheric carbon and fix into them that makes carbon balance in atmosphere and climate change mitigation. Forest makes vibrant environment by providing tangible and intangible ecosystem services. Quality timber productions, fuelwood, firewood, fodder (for livestock's), NTFPs including quality food, fruits and medicinal plants etc. are tangible products delivered through forest biomes. Whereas, watershed management, ecological restoration, soil and water management, climate change mitigation through carbon sequestration, environmental sustainability and ecological stability etc. are intangible services through forestry [3,4]. Thus, a scientific based Sustainable forest management (SFM) is a good strategy that helps in enhancing these ecosystem services and ensures to achieve the goal of sustainable development [5,6]. Similarly, a sustainable soil management would an efficient tools that promising higher soil and plant productivity, production of healthy and nutritious food and fruits, climate change mitigation through soil carbon sequestration, water and nutrient availability, efficient nutrient cycling and a greater resource use efficiency [7,8]. In nutshell, we must follow some thumb rule to promote a better management and conservations of these natural resources like forest and soil that feeds billions of peoples, makes them healthy and ensure sustainable development goals at global level.

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