RESEARCH ARTICLE

FUELWOOD AND FODDER CONSUMPTION FROM AGROFORESTRY AT DIFFERENT ALTITUDINAL ZONES OF GARHWAL HIMALAYA

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Abstract: In Himalayan region, agroforestry is one of the strategies for adaptation to climate change through provision of direct and indirect impact on improving the livelihood of the farmers in the form of productive and protective benefits, respectively. The present study attempts to assess the contribution of agroforestry in fuelwood and fodder consumption at different altitudes of Garhwal Himalayan region. Multistage random sampling method was used for the selection of the agroforestry dominated villages during 2015 to 2017. Fuelwood and fodder consumption by households was estimated in regular interval for a period of 24 hrs using weight survey method. The results revealed that fuelwood consumption from agroforestry was 0.44, 0.63, 0.68 and 0.50 kg/capita/day while the consumption from other sources was estimated at 0.84, 0.90, 0.92 and 1.47 kg/capita/day at <800 m, 801-1200 m, 1201-1600 m and >1600 m altitude, respectively. Similarly, fodder consumption from agroforestry was estimated at 4.70, 5.35, 5.57 and 3.64 kg/ACU/day while the consumption from other sources was 7.16, 6.98, 7.02 and 10.05 kg/ACU/day at <800 m, 801-1200 m, 1201-1600 m and >1600 m altitudes, respectively. The estimated results of the study will be helpful in quantifying the contribution of agroforestry in fulfilling the requirements of fuelwood and fodder. Further the share of agroforestry might assist in framing the policies with respect to the agroforestry adoption as a mechanism for climate change adaptation through the means of protective and productive services as well as by reducing the anthropogenic pressure on forests at higher altitudes.

Keywords: Agroforestry, Biomass, Energy, Fodder, Fuelwood, Garhwal Himalaya

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