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Highest Education	Ph.D. (Chemistry in Rhizosphere Chemistry of Natural Rubber to Acidic Soil Conditions), MSc (Analytical Chemistry)
Personal Statement	<p>Greetings to all! At the onset I wish to express my Happiness and Best Wishes for the recent future Summer School Trainings entitled topic on 'Mountain Ecosystems and Resource Management'. I would like to introduce myself as a Doctor in Chemistry in Rhizosphere Chemistry and Scientist (Soils & Agricultural Chemistry), Agronomy/Soils Division of Rubber Research Institute of India, Kerala, India. Graduated my Master of Science in Analytical Chemistry as Post graduation in 1992. Graduated for Bachelor of Science in Chemistry in 1990. In 2021, defended my thesis on "Rhizosphere Chemistry and adaptations of Natural Rubber (<i>Hevea brasiliensis</i>) to acidic soil conditions and received my PhD Degree in Chemistry in Rhizosphere Chemistry. In 1993 started my carrier as Scientist in Agronomy/ Soils Division of Rubber Research Institute of India, Kerala and engaged in the research on soil aspects as soil fertility and fertilizer recommendation for rubber and plant nutrition related to yield, potassium and drought tolerance of Rubber plants and plantation aspects and environmental studies like carbon sequestration potential of clones. Involved in the development of online fertilizer recommendation programme "RUBSIS- Rubber Soil Information System" for offering online fertilizer recommendation for rubber. 25 related publications including Research articles in Peer-reviewed journals, National and International seminars/conferences, and book chapter and received training programmes of the concerned fields.</p>
Paper/Presentation Title (Unpublished Research or Review or Field Work)	<i>Impact of Removal of Rubber Plantation: a high-altitude ecosystem for urbanization on CO₂ mitigating capacity by loss of carbon sink</i>
Keywords	Urbanization; Carbon sink loss; Impact; High altitude;

	Rubber plantation
Abstract (100-300 words)	<p>Urbanization is a part of developmental activities and rubber plantations - a high altitude ecosystem were found as usually removed for this purpose. Among the greenhouse gases (GHG's), the major portion contributes by carbon dioxide (CO₂). The vegetation especially big trees in the form of plantations and forests acting as large sink of carbon by the fixation of atmospheric carbon in its biomass by the process of photosynthesis (Anjali <i>et al.</i> 2020). Besides commercially high yield of latex, the economic produce of the tree and associated income, rubber tree is fairly good sink for carbon with an average carbon content of 42 per cent of the biomass. Rubber plantation is a good carbon sink in its biomass as well as soil. Apart from this, rubber sheet is a fairly good sink of carbon permanently in the form of finished products and furniture to a longer period. In the present study an estimate of loss of carbon sink per hectare due to the removal of one hectare rubber plantation usually in high altitudes in the scenario of urbanization and developmental activities were attempted.</p> <p>The study pointed out the serious carbon sink loss from the removal of rubber plantation for urbanization, one of the major development activities which resulted in the damage of the self-sustained carbon friendly and economically sound perennial rubber ecosystem. The present popular clone (RRII 105) existing in major share (85 %) of the total rubber cultivation in India accounts carbon sink loss 57t/ha, 57.5t/ha, 43.2t/ha for 23 years and 148t/ha, 75t/ha and 62.1t/ha from biomass, litter fall and sheet rubber respectively. The establishing modern clones RRII 414, RRII 429 and RRII 417 having higher growth rate and biomass recorded still higher (44-50 per cent) carbon sink loss compared to the existing popular clone RRII 105. The carbon sink loss in the form of stored carbon in soil is 56.5 with soil carbon content between 1.2 to 2 per cent. Due to the growth variation in extreme climatic conditions, the clones recorded differences in carbon stock and thereby carbon sink loss. The central region of Kerala showed higher loss and lower loss was in the drought affected northern region than South region. The total carbon sink loss for 23, 30 years were 214.2 and 341.5 t/ha respectively. Maintenance of green spaces/areas including vegetation having higher C-sequestration potential and trees having higher lignin</p>

	content to increase carbon capture for mitigating the impact of removal of plantations especially in high altitude to some extent in the scenario of inevitable developmental activities and urban developments to become environment friendly.
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