Biomass Carbon Credit Estimation for Sustainable Urban Planning and Micro-climate Assessment

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Abstract : As a result of the present climate change dilemma, the energy balancing strategy is to construct a sustainable environment has become a top concern for researchers worldwide. The environment itself has always been a solution from the earliest days of human evolution. Carbon capture begins with its accurate estimation and monitoring credit inventories, and its efficient use. Sustainable urban planning with deliverables of re-use energy models might benefit from assessment methods like biomass carbon credit ranking. The term "biomass energy" refers to the various ways in which living organisms can potentially be converted into a source of energy. The approaches that can be applied to biomass and an algorithm for evaluating carbon credits are presented in this paper. The micro-climate evaluation using Computational Fluid dynamics was carried out across the location (1 km x1 km) at Dindigul, India (10°24'58.68" North, 77°54.1.80 East). Sustainable Urban design must be carried out considering environmental and physiological convection, conduction, radiation and evaporative heat exchange due to proceeding solar access and wind intensities.