

Project Title: Reduction of atmospheric CO₂ over Delhi through non-disruptive and sustainable Carbon Sequestration: System Design and Proof of Concept

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Summary:

Increasing levels of CO₂ in the urban air basins like Delhi pose many-fold threats. Mitigation of this problem is possible through sequestration of the atmospheric carbon. The goal of the project is to design and assess a land-based carbon sequestration system to bring down the level of atmospheric carbon in a sustainable and no-conflict framework using select crops. An effective, non-disruptive and sustainable option for land-based carbon sequestration has been identified (Vetiver plantation). The proposed plant (Vetiver) is economically important as the entire sequestration can become self-sustaining through organized harvesting and oil extraction. Based on the feasibility assessment of the initial phase of the project, the quantum of Vetiver cover can be increased to reach optimum level for effective sequestration and enhanced reduction of CO₂.

Major Deliverables

- (a) Quantitative assessment of carbon sequestration through vetiver system in urban conditions
- (b) Identified soil types and urban locations for implementation of land-based vetiver system
- (c) Feasibility assessment and implementation plan for urban carbon sequestration system

