Quiñonez F et al., J Material Sci Eng 2017, 6:1 (Suppl)
http://dx.doi.org/10.4172/2169-0022.C1.058

Iriartea deltoidea & Socratea exhorriza: Sustainable production alternatives for integrated Biosystems, first stage - bioconstruction.

Quiñonez F, SF UNIMETA, COL Mojica L
CIAM-UNIMETA, Colombia

Statement to the problem: Searching for new inputs for bio-construction that adapt to the socio-economic reality of regional development, within the framework of sustainable development and land use, we have encountered the paradox of reviewing ancestral materials for innovative processes, and It is thus as of comparative way between arecaceae and bambusas we have visualized the wide use of the palms in all the Colombian tropic, like raw material of diverse nature; Such as utensils, tools, constructive elements among others, but also drawing our attention in a worrisome way that unlike bambusas, arecaceaeas do not have norms that allow legal or sustainable exploitation, but only points to rules that restrict exploitation For conservation purposes but that in the long run, they will not avoid the demand and the smuggling chains that specifically affect some species. We will study the Iriartea deltoidea of common name CHONTA and the Socratea exorrhiza commonly recognized in the region of Orinoquia and Colombian Amazonia as CHUAPO. These varieties are extremely resistant and have been used ancestrally by the natives to carry out their constructions, and we will investigate them. Methodology & Theoretical Orientation: We will be based on the type of project research with a mixed approach. The design of this will be developed through the following activities: Secondary information processing, fieldwork, diagnosis, laboratory tests, interviews, surveys, sampling, case study and analysis of primary information; formulation of hypotheses and first stage of integrated biosystems, technical proposals and recommendations. Findings: Currently, these woods are characterized by contemporary constructors as a "very hard material, which wears and damages cutting tools" contrary to what happens with the Guadua angustifolia Kunth; Easy to work, abundant in tropical regions of the world but prone to deterioration processes, so with this background we will compare the resistance of the chonta and the chuapo with physical and mechanical tests in a specialized laboratory. Conclusions & Significance: the performance of this research is to formulate an integrated biosystems for the total exploitation of the biomass of these two species. Generating indicated tools to propose norms that support use and management of chuapo and chonta, in a sustainable way, as well as the inclusion in the resistant earthquake norm, allowing to create a formally established productive chain and to be recognized as "sustainable materials" for bioconstruction.

Biography

Lina Fernanda Mojica Sánchez: Colombian Environmental Engineer specialized in project formulation and evaluation. Researcher Professor at the Center for Environmental Research at CIAM-UNIMETA which promotes the approach and execution of proposals for sustainable development.

lina.mojica@unimeta.edu.co

Notes: