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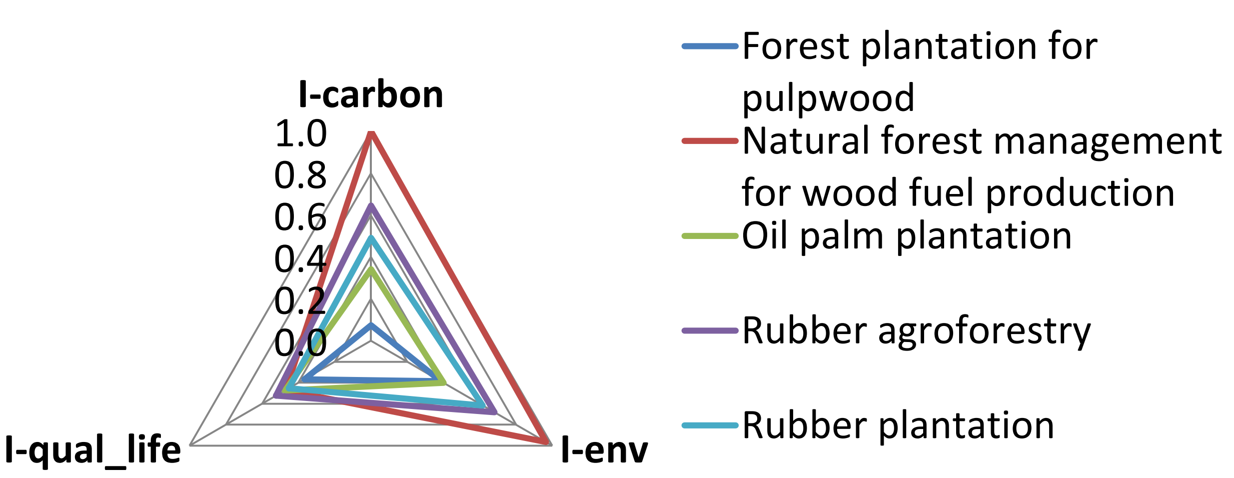
Introduction: One of the challenges raised in designing a REDD+ strategy lies in selecting the activities (commercial and conservation-based) to compose it. If REDD+ strategies are to be aligned to sustainable development goals, the activities to compose them should collaborate to the generation of environmental and socioeconomic benefits, besides the carbon benefits [1,2,3,4]. Therefore, the options of commercial and conservation-based activities for building REDD+ strategies should be assessed in these grounds in order to allow decision-makers to decide the best balance that would conciliate REDD+'s main goal with development goals of forest developing countries. Studies show that tree-based land-use systems (for commercial purposes) have potential to contribute to the design of REDD+ strategies, generating carbon, environmental and socioeconomic benefits that can complement the role of conservation-based interventions. These benefits are highlighted in commercial tree-based land-use systems such as long fallow shifting cultivation [2,5,6,7], agroforestry [2,6,8,9,10], plantation [2,7,11,12,13,14], sustainable forest management [15,16,17,18] and sustainable silvopastoral system [19]. Considering that most of REDD+ projects target the conservation of forests [2,20], this study aims to highlight the importance of analyzing the potential of tree-based land-use systems in optimizing the outcomes of REDD+ strategies in order to complement conservation-based interventions.

Methods: Five smallholder tree-based land-use systems were compared regarding the potencial performance in contributing to REDD+ strategies. The systems analyzed were: oil palm plantation, rubber plantation, rubber agroforestry and forest plantation for pulpwood in Indonesia and natural forest management for wood fuel production in Brazil.

Tree-based land-use systems	Index				Potential for REDD+
	I-carbon	I-env	I-qual life	I-REDD	
Forest plantation for pulpwood	0,0750	0,386	0,3667	0,2758	LOW
Natural forest management for wood fuel production	1,0000	0,964	0,4700	0,8114	VERY HIGH
Oil palm plantation	0,3417	0,401	0,4733	0,4054	MEDIUM
Rubber agroforestry	0,6458	0,6810	0,5233	0,6167	HIGH
Rubber plantation	0,4917	0,616	0,4533	0,5204	MEDIUM



A questionnaire with key questions on environmental and socioeconomic aspects was used in semi-structured interviews with 70 producers. The performance considered three indexes: carbon benefit index (I-carbon), environmental conservation benefit index (I-env) and local quality of life benefit index (I-qual_life), calculated as the formula presented below. The average of the three indexes generated the REDD+ index (I-REDD) – representing the potential of the system in contributing to REDD+ strategies: 0 – 0,2 (very low); 0,2 – 0,4 (low); 0,4 – 0,6 (medium); 0,6 – 0,8 (high); 0,8 – 1 (very high).

$$Index_{lk} = \frac{1}{n_l}\sum_{j=1}^{n_l}\left[\frac{1}{m_k}\sum_{i=1}^{m_k}\left(\frac{E_{ijlk}}{E_{max_i}}\right)\right],$$

E_{ijlk} indicator score *i* from *k* group from producer *j* from system *l*;
E_{max_i} maximum score for each indicator;
$i = 1, \dots, m_k$: indicators from *k* group;
$j = 1, \dots, n_l$: producers from system *l*;
l = 1: forest plantation for pulpwood; *l* = 2: natural forest management for wood fuel production; *l* = 3: oil palm plantation; *l* = 4: rubber agroforestry; *l* =1: rubber plantation.
k = 1: carbon benefit; *k* = 2: environmental conservation benefit ; *k* = 3: local quality of life benefit

***k*1 indicators:** 1: Deforestation needed for implementation; 2: Age of the conversion of natural forest; 3: Land cover substituted by current use; ***k2* indicators:** 1: Richness (n. of species composing the system); 2: Origin of species (exotic or native) of the system; 3: Use of fire in the system; 4: Use of pesticide in the system; 5: Exposed soil in the system; 6: Conservation of riparian natural vegetation; 7: Use of fertilizer; ***k3* indicators:** 1: Consumption of production by producers' households; 2: Importance of monetary income generated by the system in total wellbeing investments; 3: Share in household livelihood; 4: Local people employed in the system, apart from household members; 5: Share in women's livelihood; 6: Local women employed in the system, apart from household members.

Results and final remarks: The table and chart present the performance of the systems analyzed. The methodology proposed can help decision-makers to design REDD+ strategies considering diversification of activities, in landscape-based approaches that acknowledge the role of commercial use of forests, such as forestry, forest management, and also agroforestry, in generating net positive carbon benefits while generating environmental and socio-economic co-benefits, depending on local socioenvironmental needs.