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ECONOMIC VALUATION OF CARBON CREDITS AND SALE OF WOOD FROM COMMON PLANTATION SPECIES IN KENYA.

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INTRODUCTION

- carbon budgets as an incentive in forest farming has a potential of increasing the amount of carbon sequestered
- Forest managers are thus faced with the task of optimizing the joint production of timber and carbon sequestration, and possibly other non-timber benefits.

Objective

- To evaluate the economic returns from carbon and wood sale commonly grown plantation species in Kenya.

MATERIALS AND METHODS

- Carbondioxide equivalent was obtained from carbon estimates of *Cupressus lusitanica, Eucalyptus saligna, Juniperus procera* and *Pinus patula* in plots measuring 20 by 50 m
- Unit of value Carbon credit was estimated at a minimum of $10 and amaximumm of $30 with an average of $20.
- The unit value of wood were obtained from stumpage royalty as provided by Kenya Forest Service 2010/2011 FY
- Comparison were done on economic rotation of the tree species.

RESULTS & DISCUSSIONS

- Significant differences ($p<0.01$) between sale of carbon and wood. The letter realized more than former.
- Kiambu example

Tree species	density	Age (years)	Carbon income ($)	Wood income ($)
C. lusitanica	800	8	3,361	4,046
	590	14	7,542	9,697
	532	24	16,734	22,773
E. saligna	1238	7	9,230	11,847
	250	10	1,911	2,319
	150	12	6,993	7,266
P. patula	550	6	4,797	5,254
	200	10	4,401	4,475
	506	13	11,846	12,076
	60	32	7,008	7,953

- Carbon marketing to be aligned on sale value of wood
- E.g. a stand of 150 of *J. procera* -70 years-mean DBH 50.3 (3.048 m3& 4.92 tCO2e). Sale of wood $362; sale of carbon min. 49.2 & max. $147.6. This far below wood sale value.
- Therefore sale of carbon be priced at $74
- Marketing of carbon policy & financing be based on species specific and sale of wood

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