LAND SUITABILITY EVALUATION OF CROPS THAT FORM AGROFORESTRY IN TANRALILI DISTRICT MAROS REGENCY

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INTRODUCTION

In Maros Regency, especially Tanralili District, some people do not only farm on paddy fields, but also on land planted with trees, such as gardens in the yard, or commonly called agroforestry system. This study aims to decided land capability and land suitability classes for agricultural and forestry, and analyze limiting factors in developing agroforestry in Tanralili District.

METHODS

The methods used in this study were land survey, soil sampling, laboratory analysis, and matching methods to evaluate land capacity and land suitability for peanut and sengon in 10 land units from work maps.

RESULT

Management of Actual Land Suitability Class into Potential Land Suitability Class with Improvements to Sengon

Land unit	Land suitability sub-class			Potential class
	Actual class	Limiting factor	Improvement	
10	S2wrpe	Water availability	Irrigation system	S2rp
		Rooting media	-	
		Land preparation	-	
		Erosion hazard	Mulch, cultivation with alley cropping	
3	S2wpe	Water availability	Irrigation system	S2p
		Land preparation	-	
		Erosion hazard	Mulch, cultivation with alley cropping	
9	S2wpe	Water availability	Irrigation system	S2p
		Land preparation	-	
		Erosion hazard	Mulch, cultivation with alley cropping	
5	S3r	Rooting media	-	S3r
7	S3r	Rooting media	-	S3r
8	S3r	Rooting media	-	S3r
6	N1r	Rooting media	-	N1r

Management of Actual Land Suitability Class into Potential Land Suitability Class with Improvements to Peanut

Land unit	Land suitability sub-class			Potential class
	Actual class	Limiting factor	Improvement	
3	S3na,eh	Nutrient availability	Fertilization, organic matter	S2wa,na,eh,lp
		Erosion hazard	Mulch, cultivation with hedgerow	
8	S3na,eh	Nutrient availability	Fertilization, organic matter	S2wa,rc,na,eh,lp
		Erosion hazard	Mulch, cultivation with hedgerow	
9	S3na,eh	Nutrient availability	Fertilization, organic matter	S2wa,na,eh,lp
		Erosion hazard	Mulch, cultivation with hedgerow	
10	S3na,eh	Nutrient availability	Fertilization, organic matter	S2wa,rc,na,eh,lp
		Erosion hazard	Mulch, cultivation with hedgerow	
5	S3na	Nutrient availability	Fertilization, organic matter	S2wa,rc,na,lp
7	S3na	Nutrient availability	Fertilization, organic matter	S2wa,rc,na
6	Neh	Erosion hazard	Mulch, cultivation with hedgerow	S3oa,eh

CONCLUSION

Land capability classes in Tanralili that can be pursued for agroforestry system are class III and IV, with limiting factors such as slopes, erosion, rocks, soil texture, and rooting condition in sub-class III, and drainage factor in sub-class IV. The actual land suitability class for Peanut is S3 (marginally suitable) and class N (unsuitable), and for Sengon is S2 (moderately suitable), S3 (marginally suitable) and N1 (unsuitable for now). The threat of erosion is a limiting factor that can inhibit optimal growth of peanut, and sengon. Nutrition availability affects inhibition of peanut. Water availability and the rooting condition and land preparation becomes limiting factors for Sengon.