Determination of Classification...

by Setyo Wardoyo

DETERMINATION OF CLASSIFICATION LAND SUITABILITY FOR TOURISM AREAS IN JONGGOL, BOGOR DISTRICT

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ABSTRACT

The objective of this research was to find out the classes and sub classes of land suitability for tourism areas. Field research was conducted in Jonggol, Bogor District of the land area of 54.70 ha. The research method used is survey method. The soil sample was collected by the method of purposive. Parameters observed are soil drainage (d), floods (f), slope (l), surface soil texture (t), gravel (g), stone (s) and rock (r). Further parameters are classified according to Hardjowigeno (1988). The results showed that, of the land area of 54.70 ha obtained 17 SPT (soil map units). Classification results as follows: an area of 2.94% (1.61 ha) including moderate classes is meant to be used as a tourism area. While 97.06% (53.09 ha), including bad classes means not be used as tourism area, with the limiting factors of sub classes are drainage (d), slope (l), texture (t), stone (s) and rock (r).

Key words: land suitability, tourism area, limiting factors.

INTRODUCTION

Classification of land divided into two classifications of natural and technical classification (Hardjowigeno, 1993). Natural land classification is a classification based on properties owned land without connecting with the intended use of the land. The technical classification is a classification of land based on soil properties that affect land suitability for specific uses. For example the classification of land suitability for plantations, making buildings, road works, including the suitability of land for the tourism areas.

Land suitability classification is the grouping of land based on suitability for specific purposes. The grouping is usually done by a soil scientist with the unit map of soil survey as a basis for determining the limits of its spread (Sitorus, 1995). While the soil properties that determine the potential for its use carefully expressed, by conducting of soil surveys in the field assisted by soil analysis in the laboratory.

The study begins with the observation of soil profiles in the field, and the results are illustrated in the form of maps which are equipped with a legend that briefly describes the properties of soil from each soil map unit (Puslittanak, 1994). The Soil map is usually accompanied by a report explaining the mapping of soil further properties and capabilities of land depicted in the map. Besides the soil names in the map also included all the environmental factors that may affect the potential use of the land are phase of the soil such as steepness of slopes, the location/forms regions etc.

The data have been collected from the soil survey can be used to perform the interpretation of land suitability for various uses (Hardjowigeno, 1988) for example: (1) Assist the planning area such as the placement of residential areas, industrial areas, recreation, camping, (2) Suitability of land for agriculture, (3) suitability for making building, (4) Indicates the source of sand, gravel, and soil for "urugan", (5) Suitability of land for road construction, (6) Shows the places of inhibitors such as flood hazard, shallow groundwater, high shrink swell power; (7) Suitability of land for septic tanks, landfills etc.

Research that will be covered this ground is one of the above land use suitability of land suitability for tourism areas. The objective of this research was to find out the classes and sub classes of land suitability for tourism areas.

MATERIALS AND METHODS

The research method used by the survey method. The survey method is an advanced research methods of Witjaksono (1986) which produces 17 soil map units (SPT). Then the 17 SPT is the author continued with the study of land suitability classification for tourism areas. The research location was Jonggol, Bogor district of an area of 54.70 ha. Materials research is a detailed soil map, a set of survey instruments and a set of soil samples according to sampling tools Puslittanak (1994).

Soil sampling method is purposive method. The parameters studied were soil drainage, flood hazard, slope, surface soil texture, gravel, stones and rocks. Furthermore, the parameters are arranged in a table of land suitability for tourism areas according Hardjowigeno (1988) and USDA (1968).

RESULTS AND DISCUSSION

Assessments of land suitability classes are listed in Table 1. While the sequence of sub-classes based on the total area of land suitability are presented in Table 2.

Table 1. Assessments of land suitability per unit map of soil (SPT) for tourism areas.

Properties& Assessment of each SPT	Parameter							Land suitability	
	Soil drainage	Flood hazard	Slope (%)	Texture of the soil	Gravel (%)	Stone (%)	Rock (%)	Class	Sub-class
SPT-1:								Bad (B)	B$_l$
-Properties	good	-	16-22	Clay loam	-	0-0,1	without		
-Assessment	good	-	bad	moderate	-	good	good		
SPT-2:								moderate (S)	S$_{lt}$
-Properties	good	-	9-15	Clay loam	-	0-0,1	without		
-Assessment	good	-	moderate	moderate	-	good	good		
SPT-3:								Bad (B)	B$_t$
-Properties	good	-	9-15	Clay	-	1,0	without		
-Assessment	good	-	moderate	bad	-	good	good		
SPT-4:								Bad (B)	B$_{lr}$
-Properties	rather quickly	-	60-100	Clay loam	-	0-0,1	Rocky		
-Assessment	good	-	bad	moderate	-	good	bad		
SPT-5:								Bad (B)	B$_t$
-Properties	rather inhibited moderate	-	5-8	Clay	-	0,1-1	without		
-Assessment		-	good	bad	-	good	good		
SPT-6:								Bad (B)	B$_t$
-Properties	Moderate	-	9-15	Clay	-	0,1-1	without		
-Assessment	moderate	-	moderate	bad	-	good	good		
SPT-7:								Bad (B)	B$_t$
-Properties	good	-	11-15	Clay	-	1-3	without		
-Assessment	good	-	moderate	bad	-	good	good		
SPT-8:								Bad (B)	B$_{lt}$
-Properties	good	-	19-30	Clay	-	1-3	without		
-Assessment	good	-	bad	bad	-	good	good		
SPT-9:								Bad (B)	B$_{ltb}$
-Properties	good	-	19-30	Clay	-	30-40	rather rocky		
-Assessment	good	-	bad	bad	-	bad	moderate		
SPT-10:								Bad (B)	B$_t$
-Properties	rather quickly	-	3-5	Clay	-	1-3	rather rocky		
-Assessment	good	-	good	bad	-	good	moderate		
SPT-11:								Bad (B)	B$_{lt}$
-Properties	rather quickly	-	31-50	Clay	-	1-3	without		
-Assessment	good	-	bad	bad	-	good	good		
SPT-12:								Bad (B)	B$_{ltbr}$

								Class	Sub Class
-Properties	rather quickly	-	70-100	Clay	-	35-45	Rocky		
-Assessment	good	-	bad	bad	-	bad	bad	Bad (B)	B_{dt}
SPT-13:									
-Properties	inhibited	-	3-7	Clay	-	without	without		
-Assessment	bad	-	baik	bad	-	good	good	Bad (B)	B_t
SPT-14:									
-Properties	rather inhibited	-	9-14	Clay	-	0,1-1	without		
-Assessment	moderate	-	moderate	bad	-	good	good	Bad (B)	B_t
SPT-15:									
-Properties	Moderate	-	30-40	Clay	-	0-0,1	without		
-Assessment	moderate	-	bad	bad	-	good	good	Bad (B)	B_{dt}
SPT-16:									
-Properties	inhibited	-	9-14	Clay	-	0-0,1	without		
-Assessment	bad	-	moderate	bad	-	good	good	Bad (B)	B_{lt}
SPT-17:									
-Properties	good	-	16-25	Clay	-	1,0	without		
-Assessment	good	-	bad	bad	-	good	good		

Information Sub Class: S=moderate, B=bad, d=drainage, l=slope, t=texture, s=stone, r=rock.

Based on the assessment of land suitability class to tourism areas (Table 1), indicating that the land area of 54.70 ha in the study Jonggol, Bogor has two classes, namely class Moderate (S) and Class Bad (B), and has eight subclass. Subclass its boundary S is the slope (l) and surface soil texture (t). While the sub-class B its boundary varies from one limiting of the texture (t) up to ltsr (slope, texture, stones and rocks)

The effect Limiting Factors to Tourism Areas

Be limiting if soil texture, including texture of clay. Clay texture is difficult to take in water to the bottom, so the situation the surface of soil becomes wet or water saturated. This is not welcome tourists, Because of the shoes and clothes dirty quickly and is rather difficult to walk.

Started to become the limiting slope is> 15%. Slope is too steep will make it difficult for tourists to enjoy a walk the beauty of nature. It also caused tired quickly.

Impeded drainage means stagnant water does not immediately disappear, either lateral or vertical direction. This will make it difficult tourist activity, especially if tourists want a lot of activity a walk.

Stone on the surface of a amount> 30% would interfere with or impede tourist activity in the soil surface. The stone is too much will disturb travel and tourist convenience.

Circumstances the rocky the surface of, meaning that many rock outcrops at the surface also interfere with the activity situation a lot of tourists like stones as above. So that tourists do not feel comfortable living.

Based on class size Moderate (S) area of 1.61 ha or 2.94% (Table 2), Class Bad (B) an area of 53.09 hectares or 97.06%. Moderate Classes are included with the subclass Slt limiting slope and texture of the soil surface. Bad classes including subclass area of 22.62 ha of Bt (41.35%), Blt area of 17.34 ha (31.70%), Blr area of 4.96 ha (9.07%), Bdt area of 4.57 ha (8.35%), Bl area of 1.65 ha (3.02%), Blts area of 1.00 ha (1.83%) and Bltsr area of 0.95 ha (1.74%).

Table 2. The sequence of the Sub Classes land suitability based on the total area.

No	Sub Class	SPT	Limiting factors	Wide	
				ha	%
1.	Bt	3, 5, 6, 7, 10, 14, 15	Texture	22.62	41.35
2.	Blt	8, 11, 17	Slope, texture	17.34	31.70
3.	Blr	4	Slope, rock	4.96	9.07
4.	Bdt	13,16	Drainage, texture	4.57	8.35
5.	Bl	1	Slope	1.65	3.02
6.	Slt	2	Slope, texture	1.61	2.94
7.	Blts	9	Slope, texture, stone	1.00	1.83
8.	Bltsr	12	Slope, texture, stone, rock.	0.95	1.74
Total				54.70	100.00

Implications of Research Result To Development of Agro-tourism.

In terms of land resources, land classified moderate can still be developed into a tourist area with a rather high input record. The most ideal is a good class, meaning that without the input or the input is low can be developed as tourist areas including the Agro-tourism. Conversely, if including the bad class, the input is too high, even unprofitable. But it is still influenced by the agro-climate of each region.

CONCLUSION

The results showed that, of the land area of 54.70 ha obtained 17 SPT (soil map units). Classification results as follows: an area of 2.94% (1.61 ha) including moderate classes is meant to be used as a tourism area. While 97.06% (53.09 ha), including bad classes means not be used as tourism area, with the limiting factors of sub classes are drainage (d), slope (l), texture (t), stone (s) and rock (r).

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