

# **Aesthetic Value of Forest Elements in the Context of Rural Tourism Development**

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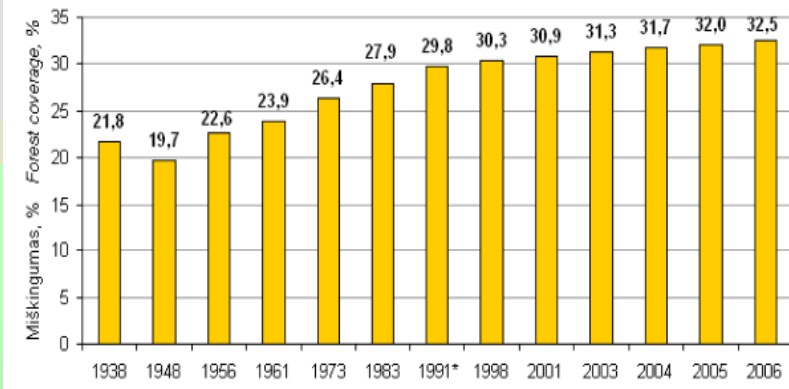
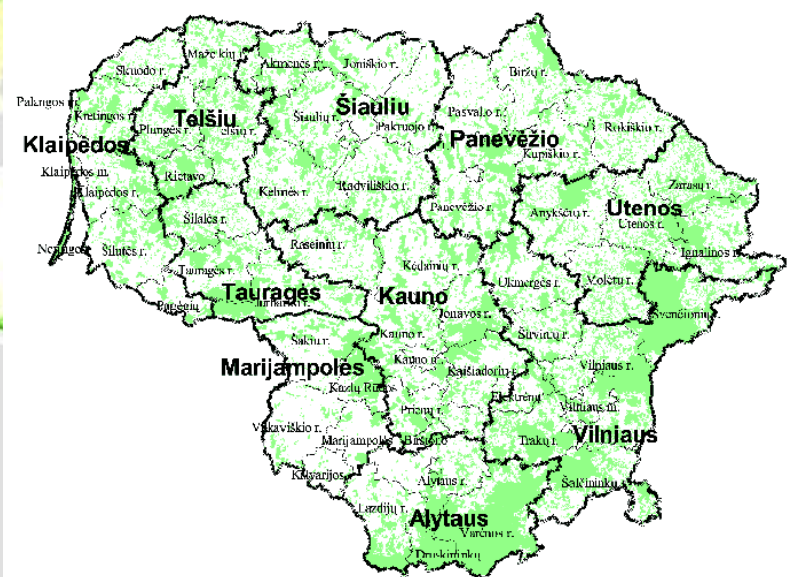
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## The Aim of the study

- *The aim* of the study is to analyze the role of forests and their aesthetic value in rural tourism landscape.



Proportion of total forest from total land area (% at 1km x 1km resolution)



\* pasaulinės miškų apskaitos (FRA 2005) duomenys Global Forest Resources Assessment (FRA 2005)  
 šaltinis: Valstybinė miškotvarkos tarnyba Source: State Forest Survey Service

The need for the aesthetic appreciation of natural and semi-natural landscapes grows with an increasing environmental awareness and reflects the potential aesthetic and recreational value of these landscapes that can be pertinent for tourism development.

The terms to denote the perceptual and cognitive *processes* of viewing, assessing, valuating and favoring landscapes are therefore widely applied, like “aesthetic response to landscape” (Pitt & Zube, 1979), “appraisal of scenic beauty” (Hull and Stewart, 1995; Chhetri et al., 2004); “visual landscape perception” (Shafer et al., 1969; Zube et al., 1982; Nassauer, 1995; Bell, 2001; Daniel, 2001; Fairweather & Swafield, 2001; Ervin & Steinitz, 2003, Jacobsen, 2007); “perception of scenic quality” (Ribe, 1989, 2002); “landscape preference” (Abbelo & Bernaldez, 1986; Purcell et al., 1994; Palmer, 2000; Wherrett, 2000; Jorgensen et al., 2002; Kaltenborn & Bjerke, 2002; de la Fuente de Val et al., 2006; Ode et al., 2009); “scenic preference” (Kaplan & Kaplan, 1989; Gobster & Westphal, 2004).

Research into the aesthetic values of large-scale forest landscapes began in the late 1960s and early 1970s in the US in response to public concern over clear-cutting of the national forests and provisions of the US National Environmental Policy Act (1969) and the National Forest Management Act (1976) (Gobster, 1999). These legislative acts directed land managers' attention to aesthetic impacts associated with forestry and recreation (Rolloff, 1998).

Over past 40 years have been made numerous research on aesthetic value of the landscape. They led to do several conclusions and among the main theoretical conclusions was that there *couldn't be any universal standard theory and methodology* for the aesthetic assessment and valuation of landscapes (Gulinck et al., 2001).

Other practical conclusions were drawn :

1. Judgments of scenic beauty are the result of interactions between the physical features of the landscape being considered and the characteristics of the individual looking at the landscape.
2. Despite individual and cultural differences some physical features of landscapes seem to be consistently associated with judgments of scenic beauty or preferences for landscapes.
3. Although there are features which appear to be common to all landscapes, there are also features associated with scenic beauty which are unique to particular landscapes (Ormsby et al., 2004, p. 34).

# Methodological background

The environmental context in which the transactions between individuals and landscapes occur is explicated by the *evolutionary theory* of landscape perception (Zube, 1984; Kaplan & Kaplan, 1989; Appleton, 1996). According to this theory, humans have an intrinsic standard of beauty which has enormous adaptive and/or welfare implications (Tveite et al., 2006). Landscape preferences reflect landscape qualities satisfying human *biological needs to survive and thrive as a species*. As all humans have a similar evolutionary basis for evaluating a landscape, this would argue for the existence of a common set of landscape features perceived as positive or negative for all humans.

Theories argue that the perception and experience of a landscape are predominantly dependent on the cultural background and personal attributes of the observer. These theories focus either on perceived functions of the observer (Bell, 1999), or on cultural conventions towards landscapes (Nassauer, 1995). In practice, most often people's notions regarding what is "scenic" are likely to include a mixed and unknown assortment of their perspectives on many different aspects of natural environments, which can be perceptually transient in the viewer and flexible in its application (Amadeo et al., 1989).

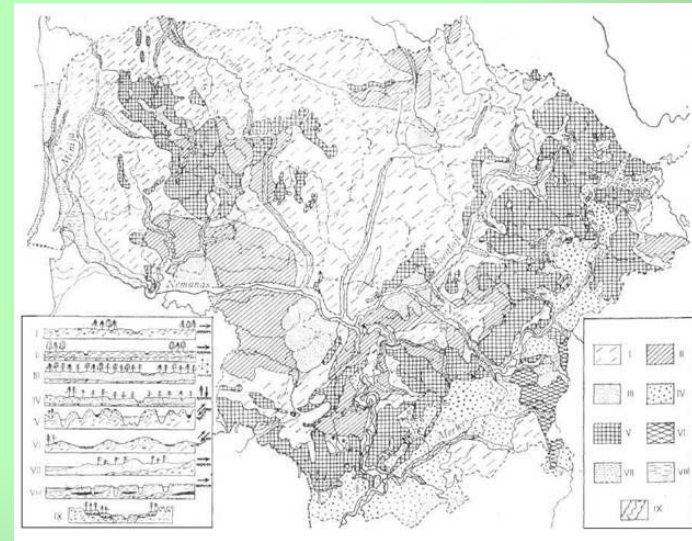


- Traditionally, two contrasting approaches – ‘objectivist’ and ‘subjectivist’ – have dominated in methodology development in landscape aesthetics (Zube et al., 1982; Vining & Stevens, 1986; Lothian, 1999).

Table 1. ‘Paradigm s’ of landscape perception research (after Lothian, 1999)

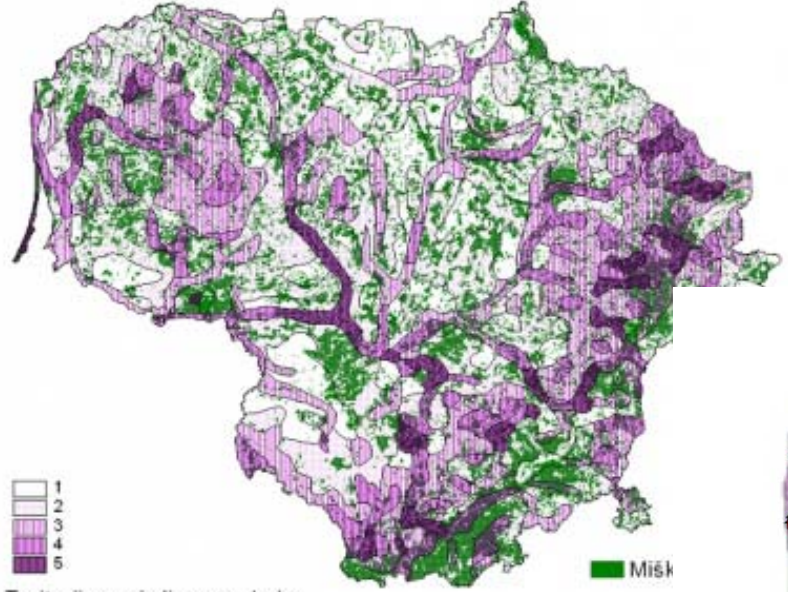
Authors	Paradigm s			
	Objectivist (physical)	Subjectivist (psychological)		
Zube et al., 1982	Expert	Psychophysical	Cognitive	Experiential
Daniel & Vining 1983	Ecological / Formal aesthetic	Psychophysical	Psychological	Phenomenological

Many scenic quality assessments conducted by the land and forest management institutions worldwide follow the *objectivist* paradigm. Various “visual management systems” in the US, UK and continental Europe, including Lithuania *inter alia*, were developed to measure aesthetic quality of landscapes and set standards for its preserving, enhancing, or retaining and mitigating the effects of landscape development (USDA Forest Service, 1995; Gobster, 1999, Swanwick, 2002; Gobster & Westphal, 2004; Lietuvos TSR Atlasas, 1980).

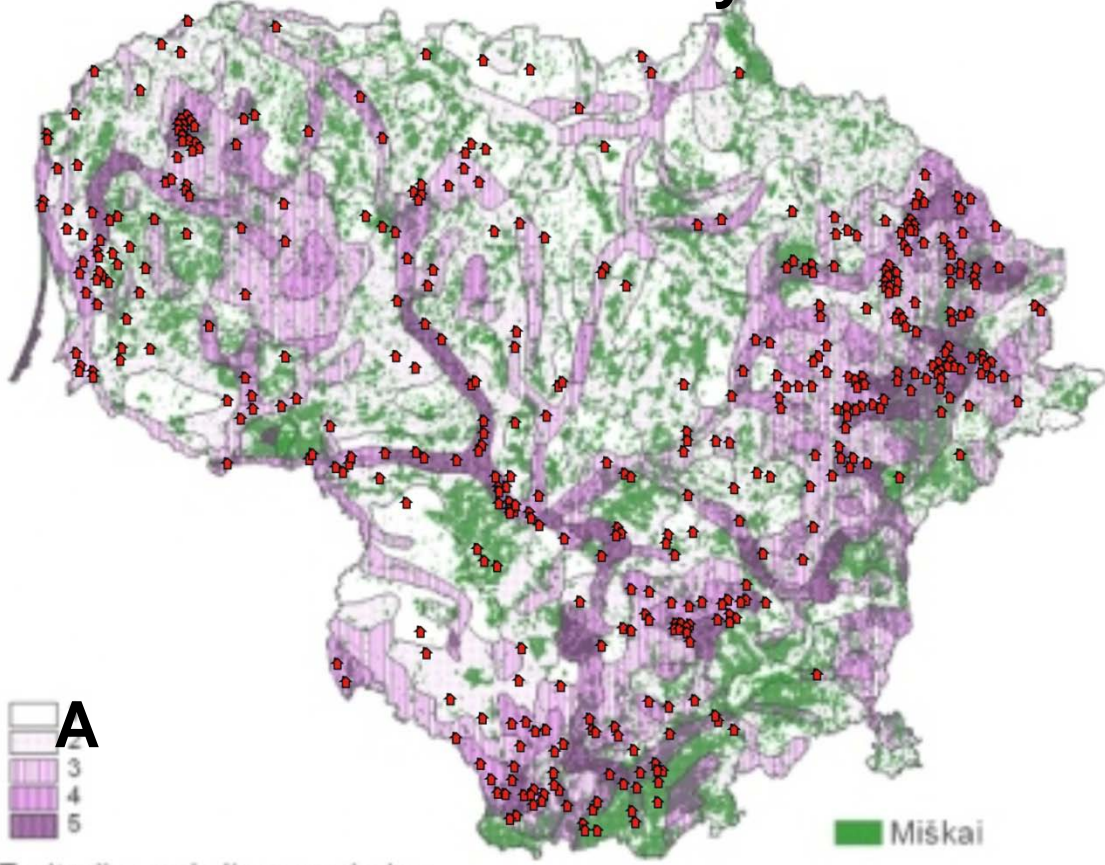


# Aesthetic assessment of the territory of Lithuania

## Coherence of rural tourism farms distribution and aesthetic value of the territory



Teritorijos vaizdingumo balas  
(Lietuvos aplinkosaugos strategija/  
strategijos pagrindimas, 1996)



**A**  
1  
2  
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Teritorijos vaizdingumo balas  
(Lietuvos aplinkosaugos strategija/  
strategijos pagrindimas, 1996)

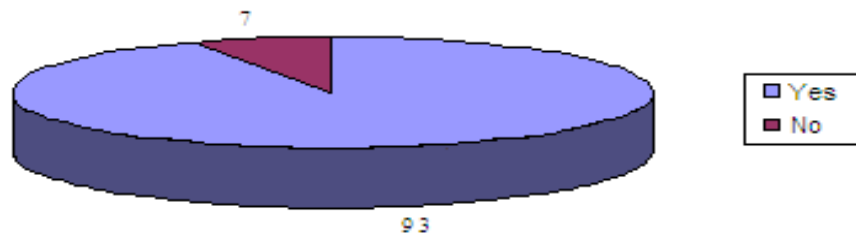
- Therefore, personal perception is the cornerstone of the “subjectivist” paradigms, with internalized attitudes and values comprising the units of our study. In other words, perception-based approaches emphasize the human view (subjective) of the landscape and treat biophysical features of the landscape as stimuli that evoke relevant psychological responses.
- The theories of the landscape aesthetics suggest that the content and spatial arrangement of landscape attributes could be used to *predict landscape preferences* which are very important in the contemporary rural tourism development.

The research into the aesthetic value of rural landscape was conducted in the period of 2005 to 2009 and based on the survey of 1,500 respondents in the territory of Lithuania.

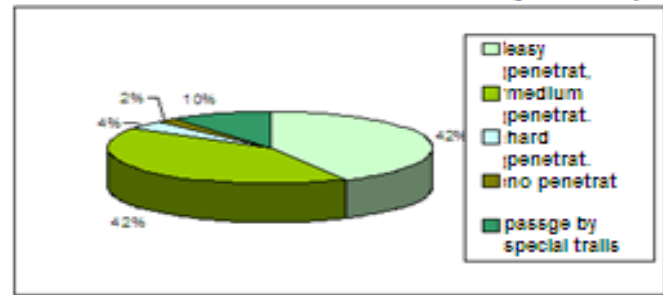
**Visual scale** as a concept comprises perceptual units that reflect the experience of landscape rooms, visibility and openness.

Dimensions: visibility; openness; grain size.

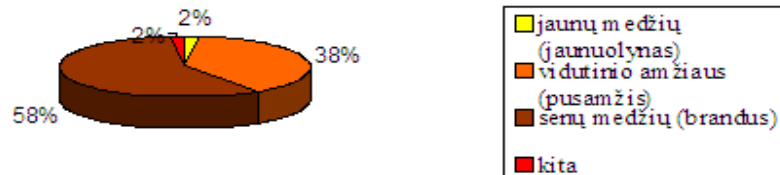
Evaluation of forest presence in rural tourism landscape



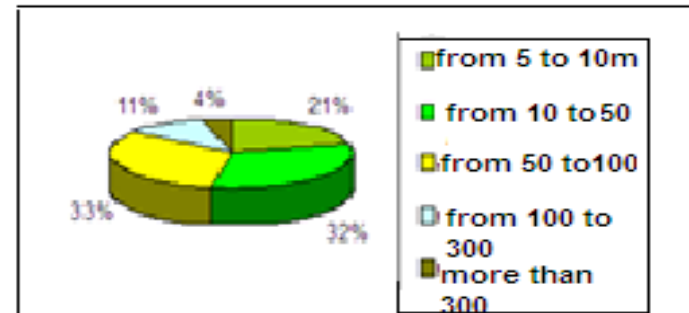
Evaluation of the aesthetic value by forest penetration



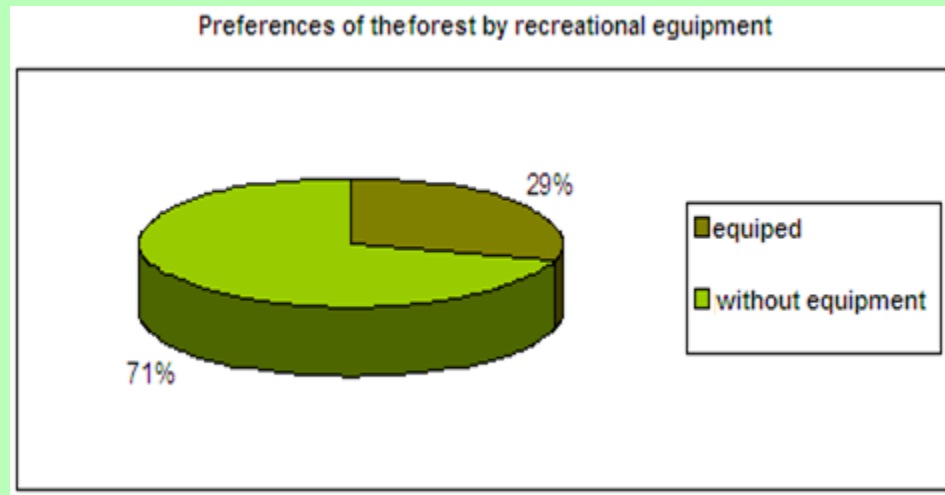
Preferences of the tree age in the rural landscape



Evaluation of forest transparency as aesthetic value

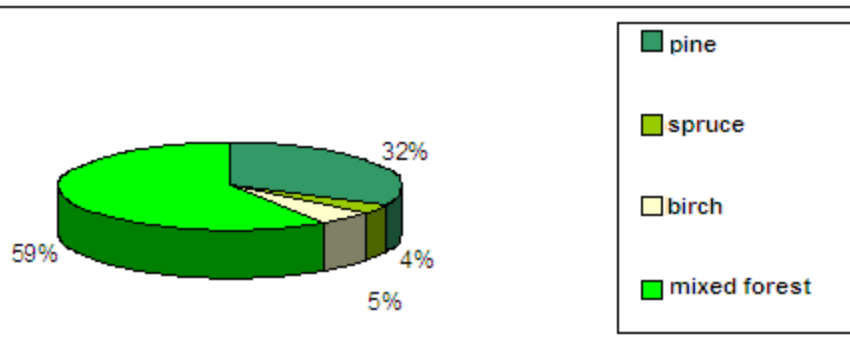


# Recreational equipment as aspect of evaluation of aesthetic value

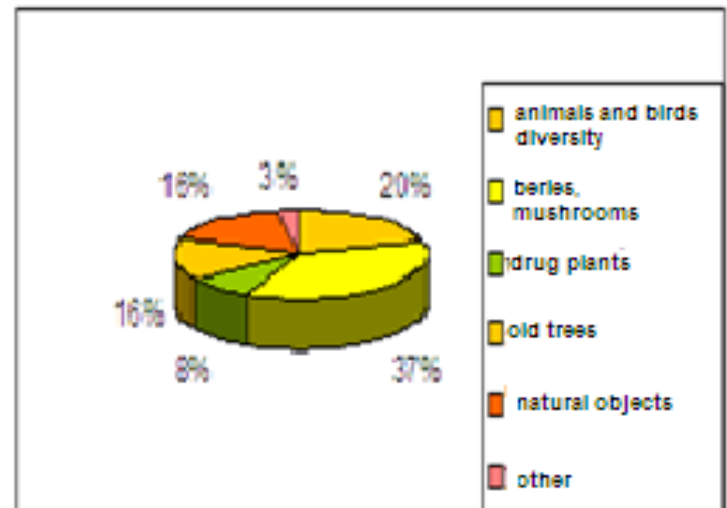


Quite often aesthetic, ecological, nature conservation and recreation development priorities appear to be coherent, particularly in the case of the most attractive and salient natural and semi-natural forest. People with different types of environmental attitudes agree that the most beautiful landscapes are also the most acceptable (Ribe, 2002). E.g., surveys do suggest aesthetic merit in forests with a variety of species when they create visual diversity (Ribe, 1989).

Preferences of tree species in rural landscape

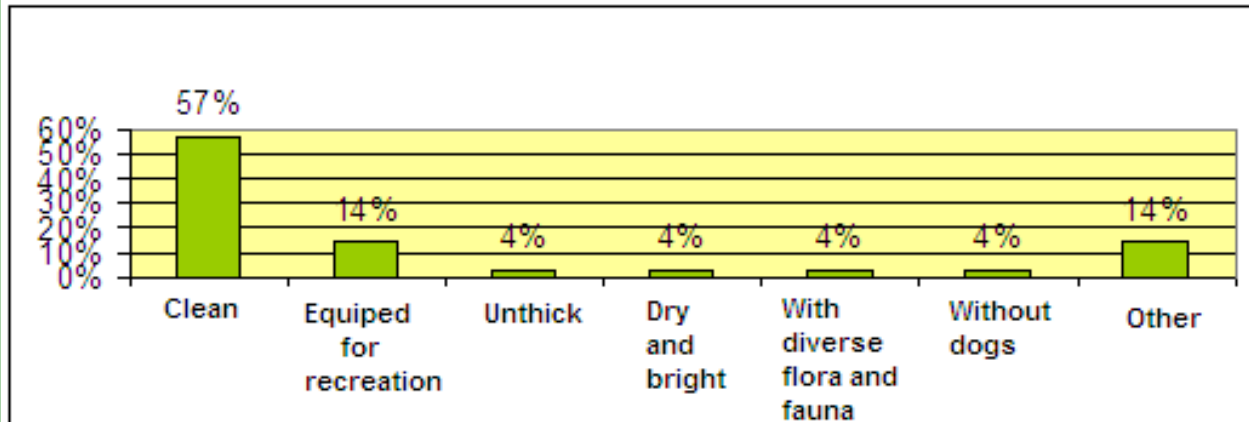


Preferences by diversity of fauna and flora

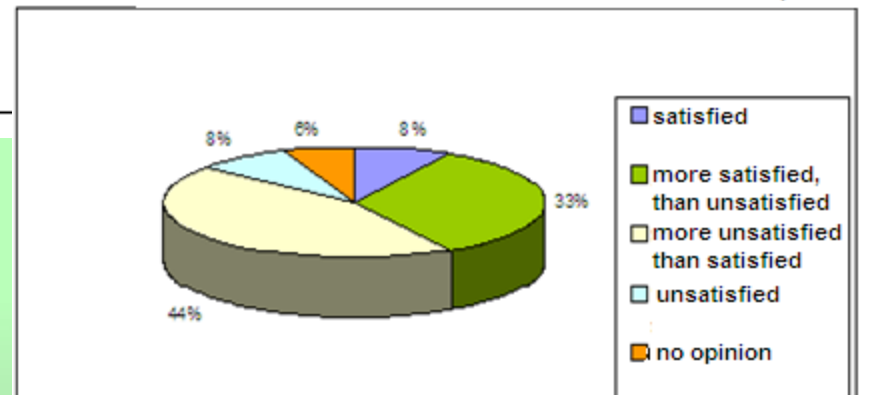


The concept of *imageability* designates qualities of a landscape present in totality or through elements

Associations for the evaluation of the scenic forest







Satisfaction with of overall forest aesthetic value in rural landscape



- In the research were found conclusions directly related with the forest : for Lithuanian residents, detached old trees (oaks, linden-trees, maples and birches), the old homestead plants, and small pine-tree groves and spruce in the rural landscape were of the greatest value.
- Other conclusions: the forest element acted as the essential axis of the levels of the relief; the most significant cause of the respondents' aesthetic landscape-related experiences was based on the relief; distance is a crucial factor in landscape preference studies (latter was found by Jorgensen et al.(2002) Appleton (1996),Hagerhall ( 2000))

Emergence of a particular cultural landscape, among numerous potential landscapes, depends on policy options, on prevailing attitudes in society, and on culture (Kaur et al., 2004). This is especially true in the case of the forest conservation and management policy on the rural tourism landscape.

# Types of rural tourism landscapes by the forest dominance and aesthetic value

	Type by forest dominance	Characteristics	Sub-type by aesthetic value
1.	Dominant	Forest is main dominant in the rural tourism landscape. Important for evaluation : composition and diversity of species, transparency, penetration, age of the trees and forest.	
2.	Mixed	Dominate both forest and non-forest plantations. Important for evaluation: composition and diversity of species, age of the trees and forest.	
3.	Detached	Dominant are non forest plantations with detached forest elements. Important for evaluation: composition and diversity of species, age of the trees and forest.	
4.	Woodless	No forest elements, dominate non-forest plantations	

# Thank you

