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VALUES, FAIRNESS AND LEGITIMACY

IN THE CONTEXT OF FINNISH FOREST AND NATURE CONSERVATION POLICY

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ACADEMIC DISSERTATION

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ABSTRACT

This study focuses on the values, fairness, and legitimacy of forest-related decision-making in Finland. This context of study can be described with the opposing values of the intensive use of forests and biodiversity conservation. Further, the legitimacy of decision-making processes in the field has been questioned by various stakeholder groups. The purpose of forest policy in Finland is to enhance the sustainable production of material and immaterial benefits derived from forests to serve the needs of all citizens. To meet this purpose, citizens' opinions concerning forests and decision-making are crucial.

The first aim of this study is to investigate how forest values make their way into the decision-making process in this specific political field; as such, the forest values of citizens, Members of Parliament (MPs) and forest professionals are compared. The second aim is to suggest speed of decision-making as one principle that people use when evaluating the fairness of an overall decision-making process. The third aim is to develop a model of legitimacy for a hypothetical political sector and test it in the forest policy context, and further, to examine how certain personal factors (i.e., values and competencies) affect the evaluation fo legitimacy. The fourth aim is practical; namely, to bring out citizen opinions on forest-related decision-making in Finland for the basis of policy-making.

Three survey samples were used: citizens (N=1260), MPs (N=80), and forest professionals (N=1016). These samples were analyzed in the five quantitative sub-studies of this dissertation using statistical methods, such as regression modelling, analysis of variance, mediation analysis, and structural equation modelling.

The examination of forest values revealed remarkable difference between the three groups: citizens emphasized more biodiversity conservation value than economic value, while for MPs these values were almost equal in importance, and for forest professionals, economic value was most emphasized. The difference in values partly explains the persistence of forest-related conflicts in Finland. The values held by the majority of citizens deviate from the mainstream forest discourse, which is dominated by forest professionals who emphasize the economic use of forests.

The idea of using speed in decision-making as one fairness criterion is drawn from, and built on, uncertainty management model (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002). The effect of speed on legitimacy was mediated through procedural fairness and the effect was curvilinear. Very fast and very slow decision-making processes were perceived to be less fair, probably because they include more uncertainty than moderate processes. Although fast processes reduce short-term uncertainty (i.e., time under uncertainty), they may create concerns about the quality of the decision-making process.

The perceived legitimacy of Finnish forest related decision-making was explained by procedural justice and forestry practices; for non-owners, power relations also had an effect. The policy as a whole was perceived as rather legitimate by citizens but the two most important elements of legitimacy raised notable criticism: the treatment of

different points of view was considered to be unfair and the main forestry practice, clearcutting, was generally met with disapproval. This can be explained with system justification theory (Jost and Banaji, 1994), which claims that people are motivated to believe that existing social arrangements are legitimate, justifiable and even necessary–especially if the possibilities to influence it are limited. The findings confirm this: the lower a citizen's competence in forest issues, the more the evaluation was perceived as legitimate.

This study challenges forest policymakers to acknowledge citizens' opinions and focus on procedural justice in decision-making. At the end of this study, the practical implications and possibility of change in the context are discussed.

TIIVISTELMÄ

Tämä tutkimus tarkastelee arvoja, oikeudenmukaisuutta ja legitimiteettiä Suomen metsiä koskevassa päätöksenteossa. Kontekstia luonnehtivat vastakkaiset arvot: intensiivinen metsien käyttö vs. luonnon monimuotoisuuden suojelu. Viime aikoina Suomen metsäpolitiikan legitimiteettiä on myös kyseenalaistettu useiden tahojen toimesta. Metsäpolitiikan tehtävä on etsiä sellainen metsien materiaalisten ja muiden hyödykkeiden tuotannon taso, että hyöty yhteiskunnan kaikille jäsenille on mahdollisimman suuri. Tämän tehtävän täyttämisessä kansalaisten metsiä koskevat näkemykset ovat keskeisessä asemassa.

Tutkimukselle asetettiin neljä tavoitetta: 1) selvittää, miten metsiä koskevat arvot välittyvät päätöksentekoon vertailemalla kansalaisten, kansanedustajien ja metsäammattilaisten arvoja, 2) esittää, että päätöksenteon nopeus on yksi periaate, johon ihmiset vetoavat arvioidessaan menettelytapojen oikeudenmukaisuutta, 3) kehittää malli, jolla voidaan arvioida tietyn politiikan alan legitimiteettiä, soveltaa sitä metsäpolitiikka-kontekstiin ja tarkastella, miten arvot ja kompetenssit vaikuttavat legitimiteetin arvioimiseen sekä 4) tuoda esille kansalaisten näkemykset metsiä koskevasta päätöksenteosta politiikanteon pohjaksi.

Tutkimus perustuu kolmeen otokseen: kansalaiset (N=1260), kansanedustajat (N=80) ja metsäammattilaiset (N=1016). Kyselyaineistoja analysoitiin viidessä kvantitatiivisessa osatutkimuksessa käyttäen mm. regressio-, varianssi- ja mediaatioanalyysiä sekä rakenneyhtälömalleja.

Metsäarvojen tarkastelussa kolmen ryhmän väliltä löydettiin huomattavia eroja: kansalaiset painottivat enemmän suojelullisia kuin taloudellisia arvoja, kansanedustajilla nämä olivat lähes yhtä tärkeitä ja metsäammattilaiset korostivat taloudellisia arvoja. Nämä toisistaan poikkeavat arvot selittävät osaltaan Suomen metsiä koskevien konfliktien sitkeyttä. Kansalaisten enemmistön arvot poikkeavat vallitsevasta diskurssista, joka on ammattilaisten dominoimaa ja korostaa metsien talouskäyttöä.

Päätöksenteon nopeuden esittäminen yhdeksi oikeudenmukaisuusperiaatteeksi pohjautuu epävarmuuden hallinnan malliin (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002). Päätöksenteon nopeus vaikutti menettelytapojen oikeudenmukaisuuden arviointiin. Hyvin nopeat ja hyvin hitaat päätökset nähtiin vähemmän reiluina verrattuna kohtuullisen ajan kestäviin prosesseihin todennäköisesti siksi, että vaikka nopeat päätökset vähentävät epävarmuuden leimaamaa aikaa ennen päätöstä, ne herättävät huolen päätöksenteon laadusta.

Suomen metsäpolitiikan legitimiteetin arvioimiseen vaikutti vahvimmin käsitys menettelytapojen oikeudenmukaisuudesta sekä metsätalouskäytäntöjen hyväksyntä. Metsää omistamattomilla myös valtarakenteiden hyväksynnällä oli vaikutusta. Päätöksenteko näyttäytyi kokonaisuutena melko legitiiminä, vaikka kahdessa keskeisimmässä elementissä nähtiin huomattavia heikkouksia. Eri näkökulmia ei nähty huomioitavan tasapuolisesti päätöksenteossa ja keskeinen metsätaloustoimenpide, avohakkuut, aiheutti paheksuntaa. Järjestelmän oikeuttamisen teorian (Jost

and Banaji, 1994) valossa tulos on ymmärrettävä. Ihmiset ovat motivoituneita uskomaan, että vallitseva sosiaalinen järjestys on legitiimi, perusteltu, jopa välttämätön – erityisesti, jos he kokevat vaikutusmahdollisuudet heikoiksi. Juuri näin tulokset osoittivat: mitä vähemmän vastaaja oli perillä metsiä koskevasta päätöksenteosta, sitä legitiimimpänä hän sitä piti.

Tutkimus haastaa metsäpolitiikan tekijät huomioimaan kansalaisten metsiä koskevat tavoitteet sekä kiinnittämään huomiota politiikan tekemisen tapaan. Lopuksi pohditaan tulosten merkitystä yleisesti sekä alan mahdollisuuksia erityisesti.

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This work is dedicated to Kerttu, my daughter and a citizen with a view. She has sorted out my priorities by her pure existence, and shown me the purpose of life.

Helsinki, October 2014
Annukka Valkeapää

CONTENTS

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following publications:

I Valkeapää, A. & Ojala, A. (under review). Conflicting goals for forests – comparing citizens' and members of parliaments' forest values in Finland.

II Rekola M., Valkeapää, A. & Rantala T. (2010). Nordic forest professionals' values. *Silva Fennica 44(5)*. DOI: 10.14214/sf.127

III Valkeapää, A. & Seppälä, T. (2014). Speed of decision-making as a procedural justice principle. *Social Justice Research*. 27, 305-321. DOI: 10.1007/s11211-014-0214-6

IV Valkeapää, A. & Karppinen, H. (2013). Citizens view of legitimacy in the context of forest policy in Finland. *Journal of Forest Policy and Economics. 28,* 52-59. DOI: 10.1016/j.forpol.2013.01.004

V Valkeapää, A. & Vehkalahti, K. (2012). Citizens as political agents: A survey of competence, system satisfaction and the desire to influence the Finnish forest policy. *Transcience Journal 3(1)* pp. 25 – 39

The publications are referred to in the text by their roman numerals.

Authors' contributions in each publication: I) Valkeapää was responsible for the analyses and writing the article. Ojala contributed by writing parts of the manuscript, especially relating to forest values. II) Valkeapää planned the data analyses together with Rekola. She was responsible especially treating missing data and creating the coding system to optimize the use of the data, despite the challenges due to data collection. Rekola was responsible for writing the paper and he made the final analysis. All authors contributed to the writing of the paper. III) Valkeapää was responsible for writing the first draft and initiating the research. She also made the statistical analyses. The development of the argumentation and the writing was done in close collaboration with Seppälä. IV) Valkeapää was responsible for the analyses and writing of the article. Karppinen participated in writing and commented on the paper. V) Valkeapää made the analyses and was responsible for the writing the article. Vehkalahti commented on the methods and the structure of the paper.

1 INTRODUCTION

"Nature and its biodiversity, the environment and the national heritage are the responsibility of everyone."
The Constitution of Finland, 20 §

The way we use and conserve nature and its resources affects the living conditions of our planet, not only for the current population but also for future generations. Actually, according to Rockström et al.'s seminal article in nature 2009, the loss of biodiversity has exceeded the 'planetary boundaries' for a range of essential Earth-system processes. According to the article, loss of biodiversity is an even bigger risk than climate change (Rockström et al., 2009). In the management of any natural resource, there is usually a conflict between the use and the protection of that resourse in question. The basic setting is the same within the context of this study; forest-related decision-making in Finland can be described with the opposing values of the intensive use of forests and biodiversity conservation (Rantala & Primmer, 2003).

When dealing with conflicting values, the fairness of decision-making is a key issue in establishing legitimate policies and practices (e.g., Toorn, Tyler, Jost, 2010). A shared vision of justice and fairness facilitates social cooperation at three levels: conflict resolution, the legitimization of authorities and deference to institutions or collectives (Tyler, 2012). When citizens perceive the state's policies as legitimate, they accept the exercise of power, and, thus, conform to decisions. Nevertheless, in contemporary pluralistic societies, by definition, diverging opinions exist and public policies are discussed. At its best, discussion leads to changes so that the system better serves its members.

In this context, the purpose of a forest policy is defined to be to "enhance the sustainable production of the material and immaterial benefits of forests to serve the needs of all citizens" (Kuuluvainen & Valsta 2009, see also Ministry of Agriculture and Forestry, 2014a). Further, the Constitution of Finland (731/1999, 20§) states that "the public authorities shall endeavour to guarantee for everyone the right to a healthy environment and for everyone the possibility to influence the decisions that concern their own living environment." Policy-making at the most basic level requires a balancing of conflicting values. However, citizens' values, preferences about forest use, including the conservation of forests, as well as perceptions have not been studied systematically for the basis for policy-making. Further, there have been strong no-confidence votes for the legitimacy of decision-making processes by various stakeholder groups (Raitio, 2008; Siiskonen, 2007; Donner-Amnell & Rytteri, 2010). Participatory approaches are the modus operandi in the policy-making in this field—as is nowadays the case in several political fields. These procedures are able to bring various interests into decision-making but they are obviously problematic in that, under the current system, public opinions may

not be of interest to any stakeholder group (Elsasser, 2007, Reed, et al., 2009, Kangas et al. 2010).

This dissertation research is based on five peer-reviewed articles examining values, fairness, and legitimacy in the context of Finnish forest-related decision-making. This is a multidisciplinary study in which political science provides a framework to study political support and forest sciences are utilized to understand the context. The social psychological theories and survey methodology was used in building questionnaires and statistical methods were used to analyse data. Social and political psychology provide base to interpret the results.

My first aim in this dissertation research is to analyze the forest values of citizens, Members of Parliament (MPs) and forest professionals. The goal is to shed light on the representativeness of MPs with regard to citizens and, further, to contrast the values held by these three groups and discuss possible reasons for discrepencies and implications. The second aim is to propose speed of decision-making as a new fairness principle, based on uncertainty management model (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002). The third aim is to build a model to evaluate various sides of legitimacy in a particular political field and then apply it to forest-related decision-making in Finland and analyze the perceived legitimacy of the policy among the Finnish population. Further, I investigate how certain personal factors, namely, values and competencies, affect legitimacy. From a practical point of view, my fourth aim is to bring citizens' opinions on forest-related decision-making in Finland into public discussion and, further, to provide baseline information for political decision-making in the forest context. In the end, I discuss the possible implications of citizens' opinions on the legitimacy of forest policy.

The aims of the dissertation research will be covered in more detail in chapter three. Before that, I briefly present theories and the context of the study.

2 BACKGROUND

Public opinion originates in values (Skitka & Mullen, 2002). In a context of conflicting values like forest policy, the fairness of decision-making processes might be of special importance, since it helps in the prevention and resolution of conflicts. Generally, fairness is a key antecedent of legitimacy (Tyler, 2006, Toorn, Tyler & Jost, 2010), which is the perceived quality of a particular political system that makes citizens to justify the system and conform to its rules (Tyler, 2006).

I start with a brief theoretical review of values, fairness and legitimacy. In each theoretical sub-chapter, I start with the basic theories and then develop the ideas for the purpose of this research. Then, I present the context of Finnish forest and nature conservation policy, which is currently facing a structural chance. At the end of the chapter, I discuss the inherent challenges in participatory approaches and present survey studies as one possible solution.

2.1 VALUES

Values answer the question
'What is important, desirable, worth?'
(Portman, 2014, p. 19)

Values have been in the core of characterizing societies and explaining the motivational bases for behavior (Schwartz, 2011). Already more than one hundred years ago, Durkheim and Weber used values for explaining social and personal organization and change (Schwartz, 2012). Values refer to desirable goals which motivate action and guide the evaluation of people and events (Rokeach, 1973; Schwartz, 1992; 2012). Values are rather stable in time, more abstract than norms and attitudes and, in essence, transcend specific actions and situations. Further, the relative importance of certain values over others also influences attitudes and behaviour. (Schwartz, 1992)

2.1.1 UNIVERSAL VALUES

Shalom Schwartz (1992) developed a model of universal values, which has been validated across the cultures (e.g., Vauclair, Hanke, Fisher, & Fontaine, 2011). The idea behind the model is that values are grounded in the universal requirements of human existence. There are three basic requirements: the needs of individuals as biological organisms, the requisites of coordinated social interaction and survival and the welfare needs of groups. (Schwartz, 1992)

The basic idea of the value structure is that values form a continuum of related motivations. The pursuit of one value will be congruent with another but in conflict

with an opposing value. As such, the structure of values can be presented as a circle (Figure 1) where congruent values are beside each other and competing values are opposite in the circle. For example, if one accentuates power, which refers to social status and prestige and control over people and resources, one cannot at the same time emphasize universalism, which concerns understanding, appreciation, tolerance and welfare of all people and for nature. As for achievement, which is the neighboring value of power, the goal is personal success through demonstrating competence according to social standards. There is a congruity in the motivations between power and achievement, both of which focus on social esteem. On the other hand, the neighbouring value for universalism is benevolence, which focus on concern of the welfare of close others. Both universalism and benevolence are concerned with the enhancement of others and transcendence of selfish interests. Seeing values as this kind of motivational structure implies that the values relate to other outcome variables in an integrated manner (Schwartz, 1992; 2011; 2012).

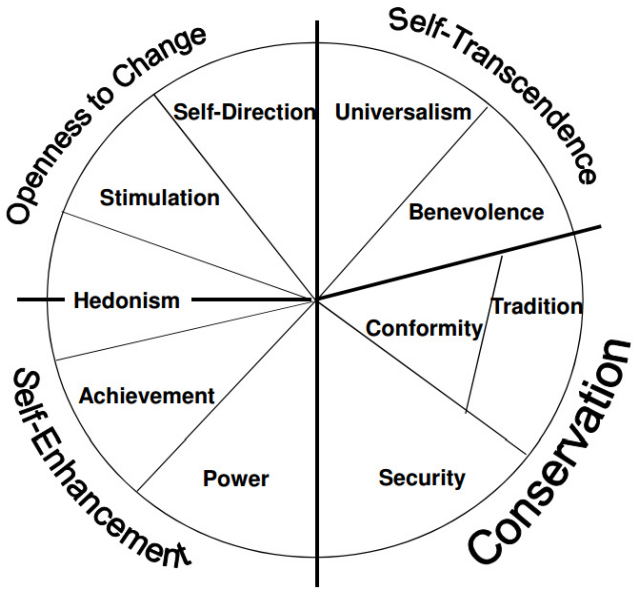

Figure 1 *Theoretical model of relations among ten motivational types of value (Schwartz, 2012)*

2.1.2 ENVIRONMENTAL AND FOREST VALUES

In the literature on environmental values, two basic concerns towards the environment have been identified: first, a concern for all living things as the intrinsic value of nature (i.e., ecocentric), and second, a concern for humans as fulfilling human needs and necessities (i.e., anthropocentric) (e.g., Thompson & Barton, 1994, Dunlap, Van Liere, Merting, & Jones, 2000; Milfont & Duckitt, 2004). It should be noted that both of these concerns have links to Schwartz's value model.

Ecocentric concerns mirror Schwartz's universalism value in their emphasis of the intrinsic value of nature while anthropocentric concerns include, among others, the power value. Taken together, ecocentric and anthropocentric concerns form what I call in this dissertation the value base of environmental studies.

Forests offer one special case of studying environmental issues. In the context of forest management and policy-making, I use the term 'forest values' to point to the different aspects of the importance of forests. There are different categorizations of forest values in the literature but the same previously mentioned value base exists in environmental values. Economic values for forest focus on utilitarian aspects, such as timber production, jobs in forestry and tourism sector, while ecological values focus on conservation and biodiversity (e.g., Eriksson, Nordlund, Olsson, & Westin, 2013). The rest of the forest values stress cultural, social, recreational, aesthetic, moral or spiritual importance of forest, depending on the study and specific context. This third group can be called social values (see Li, Wang, Liu, & Weng, 2010; Konijnendjik et al., 2005; Peckaham, Duineker & Ordóñez, 2013; Eriksson et al., 2013). The baseline beliefs of the third group of values can be mixed: when talking about recreational value of forest, the arguments are anthropocentric, while moral or spiritual values of forest are usually based on ecocentric arguments.

Historically, the anthropocentric view for forest management has been more important, especially when more people were dependent on income derived from forestry. Nowadays, more attention has been paid to the environmental benefits provided by forests. Usually these are referred with ecocentric arguments, but also the athroposentric argumentation is identifiable, when referring to how forests fulfill social needs and necessities. Distinguishing between forest values helps shed light on the arguments of different interest groups (e.g., Janse & Konijnendijk, 2007) and, for example, allows the comparison of the values held by such groups with their support in the general public.

For the citizens, the recreational value of forests has been shown to be more important than the economic value (Manning, Valliere, & Minteer, 1999). Indeed, recreational value has recently gained more attention, given the growing amount of scientific studies showing the benefits of nearby nature on human health and well-being. For example, the amount of urban green spaces are positively correlated with perceived health, as well as visiting green spaces helps to release stress and support restoration of attention (e.g., Hartig, Evans, Jamner, Davis, & Gärling, 2003; Maas, Verheij, Groenewegen, de Vries, & Spreeuwenberg, 2006; Korpela, Ylén, Tyrväinen, & Silvennoinen, 2010; Taylor, and Kuo, 2009; Tsunetsugu et al., 2013; Tyrväinen et al., 2014). Furthermore, green space exposure has also shown to diminish associations between income deprivation and mortality (Mitchell & Popham, 2008).

2.1.3 VALUES' RELEVANCE IN SOCIETY

Shared values contribute to social stability by, among other things, encouraging members of society to accept common goals and agree on how these goals should be achieved (Schwartz, 2011). Values, in general, pertain to desirable end states and guide evaluation of events (Schwartz, 1992). They become salient especially in the

case of big changes when old ways of behaving no longer function and new ways are sought (Schwartz, 1992; 2012; Puohiniemi, 2006). Values provide the basis for reasoning, including how we make choices and justify them.

Schwartz and Sagie (2000) noted that the political system is likely to influence to values in society, namely, to value priority and value consensus. They found in their study of 42 countries that in more democratic political systems, there was greater importance placed on values of autonomy of thought and action, openness to change, care for welfare of others, and self-indulgence, whereas there was less importance placed on values that emphasize dominance and control, self-restraint, and maintenance of the status quo. The researchers also found that societal value consensus decreases with democratization and they reasoned that this is because democracies permit and encourage the expression of various orientations (Schwartz & Sagie, 2000).

According to Helkama and Seppälä (2006), in Finland the change in values occurred in the 1980s when material security decreased, and the meaningfulness of work and self-fulfillment increased in emphasis. After this shift, the value priority in society level has been rather stable. It is worth noting that, when compared to other countries, Finland has been high in postmaterial values. (Helkama & Seppälä, 2006) However, the values of the political elite and executive officials may differ from the values of general public. In fact, in the context of forests, forest professional's values have been shown to be more utilitarian and economically oriented than the values of general public (e. g. , Wagner, et al. 1998; Vining & Ebreo, 1991).

2.2 FAIRNESS AND JUSTICE RULES

"Justice reflects the desire of people to work with others
to overcome the short term self-interested focus
into which people might typically fall as individuals,
but which reflects a minimum level of social existence"
Tyler, T. (2012, p. 372-373)

Fairness is one of the most important norms among humans (Van den Bos & Miedema, 2000). It is important in society, since it facilitates effective cooperation and enables social coordination; solving conflicts is easier, if there are shared justice rules where to refer, and authorities can function more effectively, if they are perceived to stick to fair procedures. Further, people are more willing to engage in collectivities which they perceive fair. (Tyler, 2012)

Philosophical approaches to justice have had a prescriptive orientation, considering the concept to be a normative ideal whereas social scientists have used a descriptive approach, namely, what people perceive to be fair. In the latter body of literature, the terms procedural justice and procedural fairness have been used interchangeably in academic literature (Colquit, Greenberg & Zapata-Phelan, 2005, p. 4).

Leventhal (1980) defined a justice rule as a belief that allocative procedures are fair and appropriate when they satisfy certain criteria. He suggested six procedural justice rules: suppression of bias, accuracy of information, representativeness of participants in decision-making, consistency across individuals in procedures, mechanisms to correct bad decisions, and ethicalness. In addition to these six procedural justice rules, research on the interactional component of procedural justice has identified four rules concerning interpersonal treatment: truthfulness, justification, respect and propriety (Bies & Moag, 1986). Also, the informational component of procedural justice has been studied separately; it focuses on the importance of the perceived adequacy of explanation during the decision-making process (Colquit, 2001).

Most of the suggested justice rules or principles can be seen to reduce uncertainty over the long term by producing high-quality decisions. Leventhal's (1980) six procedural justice rules aim to secure the best possible decisions, which include as little uncertainty as possible for the greatest number of those concerned. For example, the principle of 'representativeness of participants in decision-making' guarantees that the perspectives of all parties are taken into consideration so participants should feel control over the decision (e.g., Thibaut & Walker, 1975). Also, the interpersonal (Bies & Moag, 1986) and informational (Colquitt, 2001) justice principles can be seen to reduce process-related uncertainty; should we perceive that we are offered timely information, adequate and truthful explanations and treated with respect and propriety, the process will certainly feel less uncertain.

The procedural justice rules most frequently cited in academic literature are from studies done in the '70s and '80s. However, these six procedural justice rules have been widely used as such for more than thirty years. As a result of societal changes since the 80's, people's expectations and understanding of fairness may have changed. For example, events are expected to happen faster than ever before (e.g., Rosa & Scheuerman, 2009), and a need for security has increased hand in hand with perceived risks in the modern world (e.g., Beck, 2009). These changes highlight the importance of justice in everyday life, as it has been shown to reduce perceived uncertainty and make unavoidable uncertainties more tolerable (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002).

At the time Leventhal proposed his six procedural justice rules, he considered them to be speculative and wrote that they could only be 'guessed' because of a lack of studies to research them (Leventhal 1980, p. 39). Furthermore, it has been found that procedural justice conceptualizations explain only part of the variance in fairness perceptions (Colquitt et al., 2001). This unshared variance may imply a deficiency in procedural justice operationalizations whereby some important justice rules may be omitted (e.g., Colquitt & Shaw, 2005, 124). Thus, the content validity of fairness constructs should be reevaluated. It is valuable to examine all the possible criteria people use in evaluating the fairness of processes and decisions. Particularly from a practical point of view, decision-making processes can be made more fair only when we know what those concerned are expecting from the process.

2.2.1 UNCERTAINTY MANAGEMENT MODEL

A relatively recent theoretical approach, the uncertainty management model (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002) is a cognitive and instrumental approach to judging fairness. It attempts to answer two questions: 1) why people care about fairness and 2) how perceptions of fairness are formed.

The main idea of the theory is that people care about fairness because it reduces uncertainty and also helps them tolerate it. People have a fundamental need to feel secure about their world and their place in it, but they live in an uncertain world. The uncertainty management model extends fairness heuristic theory's (Lind, 2001; Lind, Kulik, Ambrose, & De Vera Park, 1993) focus on social uncertainties to any sort of experienced uncertainty. To manage uncertainties (and uncertainty-related anxiety), as well as to experience control over one's life, people rely on fairness-related information, whereas when the level of uncertainty is more tolerable, fairness-related information, in general, is considered less important.

In terms of how fairness perceptions are formed, the theory proposes that the level of uncertainty influences also the cognitive processes in the construction of fairness judgments. People form judgments using various cognitive short cuts; e.g., based on the first accessible information in the situation (primacy effect) or by substituting missing information with available fairness-related information (substitutability effect) (Van den Bos, Vermunt and Wilke, 1997; Van den Bos, 1999).

The uncertainty management model addresses questions about why fairness matters and how fairness perceptions are formed, but the theory does not discuss fairness principles or what kinds of procedures are generally experienced as fair. Based on the uncertainty management model, however, it is possible to address the question of what is perceived as fair.

It can be suggested that, since fairness matters to people because it reduces uncertainty, the procedures that help reduce uncertainty efficiently are those that are perceived as fair. As will next be discussed, time has become more important for people and may also be relevant in judging the fairness of decision-making processes; however, this has been insufficiently acknowledged in the procedural justice literature.

2.2.2 SPEED OF DECISION-MAKING

In any decision-making process, processing time matters. As long as the decision-making process is underway, uncertainty causes anxiety, which people want to avoid (e.g., Wilson, Canterbar, Kermer, & Gilbert, 2005). For example, the preparation of new laws and policy programs creates uncertainty around future societal circumstances. As a well-known legal maxim puts it, "justice delayed is justice denied". After the new laws are passed, people can more confidently orient to the future.

On the other hand, people do not only need quick decisions and the following reduction of uncertainty but they also value certainty over the long run. This means carefully prepared and well-justified, high-quality decisions, which are attained

through a fair decision-making processes (e.g., Leventhal, 1980; Thibaut & Walker, 1975). However, adherence to procedural justice principles in decision-making process sets challenges for fast decision-making (see e.g., Scott, Colquitt, & Paddock, 2009). Thus, very fast decision-making processes may create concerns and uncertainty about the quality of the process.

Reasonable decision-making time is not just something that people like or are satisfied with, but it is also a matter of fairness. Prolonged or poorly prepared decisions put a person in a disadvantaged position in comparison with relevant others, while also creating a feeling of undeserved treatment.

In many situations, it might be hard to assess various sides of fairness. This might be the case especially in decisions which concern either many people or complicated issues. Drawing from the uncertainty management model (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002), it can be suggested that the speed of the decision-making process is related to procedural fairness perceptions and should be studied as a potential procedural justice principle.

However, none of the most used measures of procedural justice rules touch upon the speed of the decision-making process or processing time. There are measures which relate to time in other contexts: Thibaut & Walker's (1975) process control operationalization captures perceptions related to the sufficiency of time to present one's case in the decision-making process. Moorman's (1991) measure on interactional justice covers the timeliness of feedback about a decision and its implications, and Colquitt's (2001) formulation asks more broadly whether authority is perceived to communicate decision-related details in a timely manner.

I suggest that people use speed-related information as heuristic information and substitute lacking procedures-related information by drawing inferences from the speed of the decision-making. The speed may serve as readily available information in situations when people automatically judge fairness, lack the necessary information relating to procedural justice or retrospectively evaluate the decision-making process. More specifically, I propose that very slow decision-making indicates inefficiency of the decision-making authority, while also causing feelings of uncertainty, anger and unfairness. On the other hand, I suggest that a very fast decision-making process indicates that there may be problems in the adherence of proper decision-making procedures, as full adherence to procedural justice principles takes time (e.g., Scott et al., 2009). In that case, fast decision-making processes should be perceived as producing uncertain decisions and may be negatively related with perceived fairness.

Thus, it can be suggested that the speed of decision-making has a twofold effect on perception of procedural fairness: very fast and very slow decision-making processes are perceived to include and produce more uncertainty than moderate time processes. Consequently, a moderate process is expected to be related with more positive fairness perceptions than very slow or very fast processes.

The proposition, that the speed of decision-making influences the perceived procedural fairness of the process, can be further tested by examining the mediating role of procedural fairness perceptions in the relationship between speed and its potential consequences, one of which is the legitimacy. Many studies have shown a

strong positive relationship between perceived procedural fairness and legitimacy (see e.g., Tyler, 2006 for a review). In line with previous studies, I suggest that perceived procedural fairness is positively related to perceived legitimacy. If procedural fairness perceptions are formed partly based on speed, then speed should also be related to perceived legitimacy, with fairness mediating this association.

2.3 LEGITIMACY

"Legitimacy is one of the oldest problems
in the intellectual history of Western civilizations."
Zelditch, M. (2001)

The concept of legitimacy has been concern in many fields of sciences (e.g., philosophy, political science, sociology, psychology) for 24 centuries (Zelditch, M., 2001). According to Zelditch's review of the use of the legitimacy concept, the first occurrence can be traced to 423 B.C.E. in Thucydides' History of Peloponnesian War, where the central question of legitimacy was posed: "What makes power morally right?". To deal with the same question, Plato wrote the book Republic and Aristotle the book Politics. (Zelditch, 2001)

A few millennia later, Weber developed the idea further to find a basis on voluntary loyalty that does not depend only on self-interest. He focused on the social side of the legitimate exercise of power and wrote that "action, especially social action which involves a social relationship, may be guided by the belief in the existence of a legitimate order" (Weber, 1978, p.31; Zelditch)

As for the social sciences, legitimacy is considered a belief in the appropriateness of authorities and institutions (Tyler, 2006; Suchman 1995), thus, it emphasizes citizens' *perceptions* of an issue. Suchman took into account the evaluative and cognitive dimensions and also highlight the relevance of social audience in legitimation dynamics. His definition of legitimacy is as follows: "Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." (p.574) When a system is perceived as legitimate, subordinates believe that it is their obligation to obey the decisions (Toorn, Tyler & Jost, 2010).

In this dissertation research, the definition of legitimacy is adopted from Tyler (2006) as "the belief that authorities, institutions, and social arrangements are appropriate, proper, and just." In certain parts, I use the term "perceived legitimacy" to emphasize the point of view of the one who is evaluating, although it is an assumption made in all discussion of legitimacy throughout this study. Legitimacy is also seen to be close to satisfaction with the system and reliance on the system. The system satisfaction is dissected in studies I and V as one part of legitimacy.

Easton's (1965) classical framework of political support has been the starting point in many studies of legitimacy. He made a division between specific and diffuse

levels of citizen's support. Specific political support refers to the evaluation of incumbent office holders, while diffuse (or general) political support advocates more abstract feelings towards, and identification with, the nation state and its agencies. When the object of the study is political support, two main perspectives have usually been considered. The macro perspective focuses on formal system properties and the micro perspective on people's attitudes and actions (Weatherford, 1992).

To operationalize the concept of legitimacy for the purpose of this thesis, I start with Weatherford's (1992) model for measuring the state legitimacy. He defined a model by combining macro and micro levels. These levels form two dimensions: system and personal perspectives. Judgements of system performance, has two categories: representational procedures and government performance; and personal traits also two: political involvement and interpersonal assurance. Thus, Weatherford sees these as two dimensions of the same legitimacy phenomena. As for me, I see system perspective as the essence of the legitimacy to be evaluated, and personal perspective as features of the one who is evaluating the object, in other words, as one source of variation in the evaluation process that can be taken into account when assessing the legitimacy. That is, I want to distinguish between the object that I name as components of legitimacy, and the subject, that I call as personal factors that affect the legitimacy perception. This classification organises the content of this dissertation with regard examination of the legitimacy.

Before moving to the components of legitimacy, it is worth pointing out how Finnish forest policy serves as an opportune area to study the legitimacy of a single political sector. First, forest policy is a well-defined policy sector, which is not divided into numerous fields or sub-sectors, as in the case of social policy or economic policy, for example. Second, there are qualitative studies (e.g. Rantala & Primmer, 2003; Hellström, 2001) in the field upon which it is possible to develop a questionnaire. Third, the current study has international implications as well as national ramifications since Finland has taken an active role in the preparation and implementation of international forest policy (Ministry of agriculture and forestry, 2011). The case of Finland also serves as a reference point because there have been similar institutional arrangements in most western countries that aim to increase civic participation, accountability and responsiveness.

2.3.1 COMPONENTS OF LEGITIMACY

To study legitimacy in a certain political field, it is logical to approach the question from the perspective of political studies. To be purposeful for this research task in terms of the appropriate level of specificity, some elaboration is needed to apply the ideas of the classical models of political legitimacy.

There are a number of empirical studies of legitimacy that focus on the legitimacy of the state in general (e.g., Gilley, 2006, Lillbacka, 1999 and Weatherford, 1992). There are also studies of legitimacy of well-defined institutions, such as the legitimacy of policing (Sunshine & Tyler, 2003), as well as of the legitimacy of certain decisions, such as legalization of physician-assisted suicide (Skitka, Bauman, & Lytle, 2009). However, there is a big leap in the level of

abstraction from state legitimacy, which is based on less concrete feelings towards nation states, to the legitimacy of specific institutions, e.g., how well the police manage their duties. Studies of the legitimacy of a certain political sector, which lie between the two aforementioned study lines, are often qualitative (Rantala & Primmer, 2003; Hellström, 2001). Such studies can identify problematic features of policies, but generalizing the results to the level of the whole population is not possible.

Norris (1999, redefined 2011) has elaborated Easton's (1965) model of political support and identified five distinct components, which can be seen as a continuum from the most general (or diffuse) to the most specific: 1) belonging to the nation state, 2) agreement with core principles and normative values upon which the regime is based, 3) evaluations of the overall performance of the regime, 4) confidence in regime institutions, and 5) approval of incumbent office holders (Norris, 2011).

The step from state-level legitimacy to the legitimacy of a certain political sector is a step from general feelings to more concrete issues, in which laymen probably have something to say. Most citizens have preferences at least on political outcomes. Many also have an opinion on how they want conflicting goals to be managed and, further, on who is, or which institutions are, entitled to manage these issues.

To construct a suitable approach to study a certain political field, some of the components of Norris' state's legitimacy model are too general. Though, Norris' continuum from general to specific makes it possible to define the appropriate cut point in specificity. Belonging to a nation-state (1) and agreement with core principles, e.g., democratic ideals (2) refer to state's properties in general level, and they are not in the focus of this research. However, the components from the third to five can be applied to study political support in certain political field.

Norris (2011) describes the evaluation of the overall performance of the regime (3) as general satisfaction and as an assessment of processes and practices. For the purpose of this study, the processes and practices are considered separately. This is because the practices can be seen as end products or outcomes of the decision-making processes. Furthermore, the processes may also be acceptable in cases when the outcomes are not considered favourable from an individual perspective (Hegtvedt, Clay-Warner, & Johnson, 2003). For confidence in regime institutions (4), the legislative and judicial aspects are relevant (Norris, 2011). In the case of a specific field of policy, legislation and specific laws define the field's boundaries and goals. Approval of officials (5) refers to attitudes towards a wide variety of key players, ranging from legislators to party leaders and leadership elites (Norris, 2011). The leaders in a particular sector of politics are often not familiar to citizens. However, most people have an opinion on the stakeholder groups who are involved in the policy-making process, as well as on the groups who are the objects of the policy.

Drawing from above, in considering a certain field of policy, four components are taken up. With reference to Norris' level given in parenthesis, the components are: processes (3), outcomes (3), institutions (4), and actors (5). The question of

interest in this dissertation research is how citizens' perceptions of these four components affect the overall perception of legitimacy (see Figure 2).

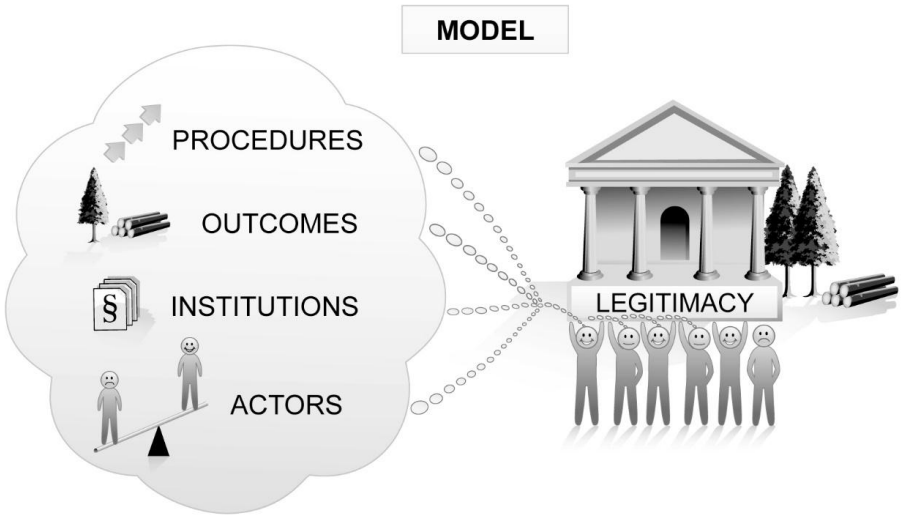

Figure 2 *Model of components of legitimacy in particular political field.*

In the following, I will look into these four components in relation to citizens' views. Processes are usually considered to be at the core of the legitimacy (Leventhal, 1980; Tyler 2006; Toorn, Tyler & Jost, 2010). Procedural justice has been shown to predict legitimacy in various cases, such as with the police (Sunshine & Tyler, 2003), with supervisors in work organizations (Tyler & Blader, 2000), and within a political system in general (Kluegel & Mason, 2004).

Outcomes describe the actual state of the world created by the political system. It can be addressed by studying the main practices in the field. This issue is tapped by asking the acceptance of main practices in the field.

Concerning institutions, I study the acceptance of specific laws in the sector. As regard to the actors, I concentrate on the perceived justice of the power relations of various stakeholder groups in the sector. The model suggested here is presented in Figure 3.

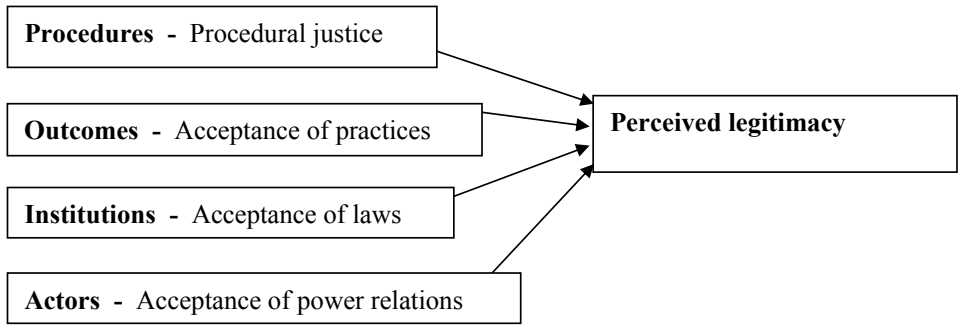

Figure 3 *The model of the perceived legitimacy and the approach to measure each component.*

2.3.2 PERSONAL FACTORS AFFECTING LEGITIMACY

The perception of legitimacy has many factors. Skitka and Mullen (2002) found the following issues to affect public opinion: group or personal interests, dispositional traits, and attributions about the causes of social problem. They also noted that the public opinion originates in core values.

Many personal features affect how people evaluate the policy and its legitimacy (e.g., Weatherford 1992, Skitka & Mullen, 2002). For instance, it is obvious, that if a person does not trust another person, it is probable that s/he does not have trust in policy, which is based on cooperation. Regarding personal factors, Weatherford (1992) defined two categories of characteristics: political involvement and interpersonal assurance. Increased ingenuousness typically leads to greater trust in politics. In other studies (e.g., Sunshine & Tyler, 2003), socio-economic status, gender, and age predicted the legitimacy valuation.

In the specific political sector, there may be other background variables that affect evaluation. In this case, forest owners may differ from other citizens (see e.g., Karppinen & Hänninen, 2000; Vanhanen et al., 2010) because of their difference with regard the property rights of forests. Forest regulations restrict the property use of forest owners, whereas Everyman's Rights specify the use rights of forests for everyone.

In this dissertation research, I focus on two issues, values and competence, and other personal factors, namely, ingenuousness/trusting/trustfulness/trustful, the socio-economic variables, and forest ownership.

2.4 CONTEXT: FOREST AND NATURE CONSERVATION POLICY IN FINLAND

This dissertation research focuses on forest-related decision-making in Finland, and, thus, the term nature conservation is used in this text to refer only to forest issues. Other aspects of nature conservation, such as climate change, water pollution control and animal protection are not included. These issues share, nevertheless, some similarities with forest issues and, in such cases, the forest perspective remains the central focus.

The forest sector has had a remarkable position in Finnish society since early in the 20th century, but it was after the Second World War that the export-oriented forest industry and the forest sector gained, as a whole, a notable role in paying reparations and building up national welfare. At present, the Finnish forest sector is facing a structural change; traditional pulp and paper industry has declined dramatically (Hetemäki, et. al., 2011) resulting in the share of the forest sector in the national economy decreasing radically, from 11 per cent in year 1980 to the current 4.3 per cent of Gross Domestic Product. Further, forest industry investments and their investment rate in Finland have decreased radically and, during the same time period, domestic employment in the sector has decreased from 8 per cent to 2.6 per cent. However, forest industry products still make up 19 per cent of total goods exported. (Finnish statistical yearbook of forestry, 2013)

Forest cover in Finland makes up 86 per cent of the country's land area, which is approximately 26.2 million hectares of forestry land, including poorly productive and unproductive forest land. Productive forest land totals 20.3 million hectares, out of which 5.2 per cent is strictly protected. There is further 3.4 per cent under lighter conservation status and in restricted forestry use; thus, 91.6 per cent of forests in Finland are used for wood production (Finnish Statistical... 2013). The massive role of wood production forests in the country suggests that, in Finland, forest management significantly shapes the national scenery and, in addition, citizens' perceptions of nature. For example, forest stands today are more or less evenly aged and consist mostly of one tree species (e.g., Ministry of Agriculture and Forestry, 2014b). This is in contrast to the natural forests, which have various tree species and a wide age distribution.

Private owners own 52 per cent of forestry land, the state 35 per cent and companies eight per cent. The final five per cent of forests belongs to parishes, jointly owned forests and other communities. The state owns more poorly and unproductive forest land than private owners and, thus, in terms of productive forest land, non-industrial private owners own 61 per cent. (Finnish Statistical... 2013).

2.4.1 POLICY FRAME

Finland has committed to several international forest and biodiversity agreements and is an active party in processes with relevance to forests, such as the United

Nations Forum on Forests (UNFF), the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), the United Nations Economic Commission for Europe's Timber Committee (UNECE/TC) and the FAO's work on forests (Ministy of Forestry and Agriculture, 2014c). These international agreements, in turn, provide guidelines for forest policy-making and goal setting at the national level in Finland.

The goal of Finland's forest policy is to enhance the sustainable production of the material and immaterial benefits of forests to serve the needs of all citizens (Kuuluvainen and Valsta, 2009; see also Ministry of Agriculture and Forestry, 2014a). Parliament accepts forest-related laws and political programs, which are prepared by the Ministry of Agriculture and Forestry and, in the case of biodiversity, also by Ministry of Environment.

Forest policy is put into place by legislation and political programmes, and implemented through public funding and informational guidance. Laws concerning forest policy are the Forest Act and the Nature Conservation Act, which together control the use of forests in Finland. The official purpose of the Forest Act (1093/1996) is to promote the economically, ecologically and socially sustainable management and utilization of forests. In other words, forests should produce wood in a sustainable way while also preserving their biological diversity. The aim of the Nature Conservation Act (1096/1996) is to: 1) maintain biological diversity; 2) conserve nature's beauty and scenic value; 3) promote the sustainable use of natural resources and the natural environment; 4) promote awareness and general interest in nature; and 5) promote scientific research.

The main policy paper in the context is the Finnish National Forest Programme (NFP), which defines the guidelines of forest policy and, as such, represents various forest values. The NFP is the strategic base of Finnish forest policy and it aims to "ensure forest-based work and livelihoods, biodiversity and vitality of forests, and opportunities for recreation for all citizens" (Ministry of Agriculture and Forestry, 2014a). It is prepared as an open and participatory process between stakeholders in forest issues (Finland's National Forest Programme, 2015). However, the openness of the process and especially the responsiveness from officials to diverse views has been questioned (Primmer & Kyllönen, 2006).

To enforce the laws and political programmes in practice, two tools are used: information guidance and subsidizing desired actions in forests. Various operations in forests are entitled to the state subsidies, for example, the tending of young stands, forest road construction and the maintenance of biodiversity. Silvicultural activities are subsidized rather generously compared to biodiversity: the amount of subsidies for silvicultural and forest improvement work in 2012 was €61 million, which mainly went to the management of young stand, artificial regeneration, and construction and basic improvement of forest roads. Further, harvesting and chipping energy wood was subsidized with €22.7 million. In the same year, subsidies for the management of forest nature and for maintaining biodiversity totaled €6.8 million (Finnish statistical… 2013, p. 94, 141-142) and for procurement and compensations of forest conservation €33.9 million (Syrjänen, Rantala, Sirkiä, Anttila, 2013) (see also Ministry of Agriculture and Forestry, 2014d).

Information guidance for forest owners is provided by local forestry associations, regional forestry centres, forestry service providers and forest industry companies. The guidance concerns practical recommendations concerning forest management methods, selling the timber, planning for incomes from forests and opportunities for the protection of forest habitats or landscapes (Ministry of Agriculture and Forestry, 2014d).

The use rights of forests are defined by Everyman's rights and regulations of forest owners in the use of their property. All people in Finland have Everyman's Right to access to forests, i.e., to pick berries and camp in any forest, regardless of who owns it (Everyman's rights in Finland, 2007). Everyman's Right allows free right of access to the land and waterways, meaning that access is always free of charge and does not require the landowner's permission; it also includes the right to collect natural products such as wild berries and mushrooms. People using these rights are obliged not to cause any damage or disturbance to nature. Such rights are widely applied in the Nordic European Countries and they also apply to foreign citizens. The only exceptions are related to local boating, fishing and hunting. Notably, Everyman's Right is in active use as almost all Finns (96%) practice outdoor recreation (Sievänen & Neuvonen, 2011).

Under the circumstances, the ownership of the forests is not as simple as owning forest or not. Forest owners are restricted in using their property by forest laws and regulations. On the other hand, everyone has some right to enjoy the property. Further, 35 % of Finnish foresta are owned by the state. This fact defines, in some degree, all citizens also as forest owners. In this sense, ownership can be seen as a continuum where, on one end, is full title to the land and, on the other end, is no rights at all. Thus, forest owners and non-owners fall somewhere along this continuum and not at its ends (see Figure 4).

Figure 4 *Schematic presentation of the use rights of the forests in Finland*

2.4.2 INTERESTS, STAKEHOLDERS AND THE CONFLICT

Environmental questions, in general, are complex social issues involving policymakers, media, industry, scientists, natural resource consumers and the public at large. As in any case when there are many interests, conflict is inevitable.

There are various interests concerning forests. Forests are habitats for animal and plant species. They also serve also economic interests, such as wood production, property investment, employment, and incomes for state and private owners. The

tourism industry also needs forests for recreational purposes. Further, forests provide berries, mushrooms and recreational services for all citizens.

In Finland, there is a history of rather intense conflicts over forests (Hellström, 2001; Raitio, 2008). Generally speaking, the public debate in Finnish forest policy has occurred within two extremes: the forestry position is characterized by utilitarian thinking and the nature position emphasizes the intrinsic value of nature (Rantala & Primmer, 2003). However, the legitimacy of forest policy has been questioned by various other parties as well. Various stakeholder groups (Raitio, 2008; Siiskonen, 2007; Donner-Amnell & Rytteri, 2010) and also some researchers have questioned the current policy based on economic (Tahvonen, 2013) and ecological grounds (Metsälain muutosehdotuksen vaikutusten arviointi, 2012). In the following section, I propose some of the relevant stakeholder and their potential interests in Finnish forest policy.

Almost 15 per cent of Finns are forest owners and there are 347,000 forest holdings sized over 2 hectares (Finnish Statistical… 2013). Forest owners are represented in decision-making processes by the Central Union of Agricultural Producers and Forest Owners (MTK). Karppinen (1998) has identified five different objectives for forest owners: multiobjective, recreationists, self-employed, investors and indifferent owners. Karppinen and Hänninen (2000) suggested that forest owners are more economically oriented than other citizens. On the other hand, forest owners have not always been satisfied with the current regulations. Specifically, there have been conflicts between forests owners and forestry boards about how to manage forests and, in extreme cases, these disagreements have led to lawsuits (Siiskonen, 2007).

The Finnish Forest Industries Federation represents both the paper and wood product industries in Finland. It lobbies for the forest industry's competitiveness and profitability, and aims that Finland would be a competitive and innovative operating environment for forest industry production, employment and investments (Forest industries, 2014).

Environmental non-governmental organizations (ENGOs) have intensively challenged the traditional forestry practices and procedures in last decades. Their claims are based mainly on biocentric arguments, the main goal being to save nature because of its intrinsic value and habitats for animals and plants (Rantala & Primmer, 2003). Their demands are largely compatible with recreational claims and also with indigenous people's rights.

State owned forests are taken care by the Forest and Park Service (Metsähallitus). It has two partly conflicting goals: to get income for the state and to protect biodiversity and provide recreational services (see e.g., Raitio & Harkki, 2014).

Further, one specific group located in Northern Finland is Samí reindeer herders. Their traditional rights of access for reindeer grazing, through which they make their living, conflict with forestry practices. The conflict has escalated to the extent that the issue of native peoples' rights to practice their traditional livelihood is being processed by the Human Rights Tribunal (see thorough discussion of the issue in Raitio, 2008).

Forest professionals can be understood as a group working with forest issues or sharing the same education. They may be working in all of above-mentioned areas. Paaskoski (2008) describes Finnish forest professionalism as a cultural process of successive generations of foresters, who have a firm profession and their own professional culture. Education is important in the socialization process, by which the group does not only create but also maintains common habits and values. Forest professionals have a shared common understanding of their professional aims, which is, generally speaking, taking care of national property. In this well-respected task, solidarity and consensus have been required. Although foresters' most common motive to select the profession is their love of nature, their attitudes concerning the use of forests have often been found to conflict with nature conservationists' views. (Paaskoski, 2008)

2.5 CHALLENGES OF PARTICIPATORY APPROACHES

In a representative democracy, citizens' viewpoints are traditionally thought to be mediated by elected officials, but in the preparation of current day political programs, participatory approaches are often emphasized. Besides the involvement of stakeholder groups in political processes, also direct participation via web pages and discussion forums, are more often available in policy formulation processes. Participatory forest programs and biodiversity programs, for example, introduced multilateral processes in which different stakeholders manage issues together (Berkes, 2009; Jordan, Wurzel, & Zito, 2005; Primmer & Kyllönen, 2006). While these kinds of processes take time, they aim to create a common vision and legitimize the policy.

Participatory approaches have inevitable strengths. They capture many of the views of held by the public and give citizens the possibility to influence policy. In stakeholder-based processes, many of the groups are non-governmental citizen groups that have internal democratic representation. However, there are also serious troubles inherent in these approaches and there are numerous examples of environmental issues in which participatory approaches have not succeeded in increasing legitimacy. The first potential problem is that procedural practices do not give equal consideration to all perspectives (Aasetre, 2006; Primmer & Kyllönen, 2006; Winkel & Sotirov, 2011). Secondly, sometimes the participatory approach is seen purely as a symbolic act, which at worst excludes citizens' political arguments (Strauss, 2011). Thirdly, one can question how informed citizens are of possibilities to participate, as well as how much commitment and preliminary knowledge is needed to express one's opinion—even in the case where individuals would have specific preferences regarding forests (Clement & Cheng, 2011).

The increased use of participatory approaches raises the question of how democratic these processes are. Elsasser (2007) notes that, in participatory processes, it is improbable that common interests are sufficiently represented. After analyzing the interests of citizens and other stakeholders in National Forest Programmes in Germany, he observed that investment in public goods was stronger

among the general public than among the stakeholders. Contrary to democratic principles, citizens cannot affect the selection of stakeholders, and stakeholders are not accountable to citizens other than those that belong to their organization. Accordingly, he suggests that National Forest Programmes should be exposed to public debate in order to balance the current deficit in legitimacy. (Elsasser, 2007)

Participatory governance relies on consultations that are by necessity selective, and, accordingly, they cannot guarantee that individuals who are potentially affected by a policy will be heard (Steffek, 2009). Further, by definition, a stakeholder-based process ignores public interests, if the interests are not mediated through organized stakeholder groups. Since the stakeholders are usually in competition with one another, it is not surprising that none of the stakeholder groups in the Finnish regional forest program process considered it important to include ordinary citizens in the process (Kangas et al., 2010).

Further, the tension between public versus expert knowledge is a common feature in debates concerning forests (Mascarenhas & Scarce 2004, Steffek, 2009). There was an interesting example of this issue after publishing this dissertation research study's first results (Valkeapää et al., 2009), which showed that the majority of citizens do not approve of clearcuttings. This raised interesting public discussion (see Peltola, 2009 and Valkeapää & Kuuluvainen, 2009), where even citizens' rights to opinions of forest issues were publicly questioned, based on the argument that they do not have the necessary competence to judge the matter. Nevertheless, since the goal of Finland's forest policy is defined to serve the needs of all citizens, it follows that citizens' opinions should have value in policy-making.

2.6 ONE SOLUTION: SURVEY STUDIES

While the strength of participatory approaches is that they bring various viewpoints, needs and wishes of known stakeholders into discussion, it is also important to consider if and how these viewpoints are held by the general population. One way—which is, according to current knowledge, the most justified—to access citizens' viewpoints is through survey studies. When based on randomized samples of the broader population, there is a possibility to generalize the results to the public at large. (Clement & Cheng, 2011)

Employing survey methodology is in principle similar to conducting a referendum, but it is less demanding to realize, particularly considering the mass of conflicts in various political sectors, surveying does not strain the population to excess. While surveys cannot fully replace referendums, the knowledge of citizens' support and opposition to certain issues could serve as a basis for public discussion and, furthermore, for making solidly grounded decisions.

The first published results of this survey study (Valkeapää et al., 2009) serve as an example of how citizens' concerns can be brought to light and how they might influence decision-making. At the same time as the results were published that the majority of citizens, regardless of forest ownership, do not approve of clearcutting,

economic modelling of forest management showed that clearcuttings are not the most efficient way to manage forests in all sites (Tahvonen, 2009). Possibly in part as a consequence of these studies and public debate, the Ministry of Agriculture and Forestry established a working group to assess current forestry practices and, further, to prepare new forest laws. One of the aims of the new forest law, which came into force in the beginning of 2014, is to increase the flexibility of forest management, that is, to allow forest management methods other than clearcutting. However, there is another aspect in this new forest law and citizens' opinions about biodiversity, which will be discussed in more detail in the discussion section of this dissertation.

3 AIMS AND RESEARCH QUESTIONS

In this dissertation research, I study the values in, as well as the fairness and legitimacy of, Finnish forest and nature conservation policy. The general aims of this dissertation research are to:

A) analyze the forest values of citizens, Members of Parliament (MP) and forest professionals;
B) propose the speed of decision-making as one procedural justice principle;
C) build a model to evaluate various sides of legitimacy in a particular political field (in section 2.3.1) and apply it to forest-related decision-making in Finland, as well as research the effect of certain factors (i.e., values, competencies and speed) on perceptions of legitimacy; and,
D) bring forward citizen opinions on forest-related decision-making in Finland and discuss their possible implications on the legitimacy of forest policy.

The *theoretical contribution* of the study is to suggest the speed of decision-making as one principle of procedural justice and develop uncertainty management model as well as the concept of procedural fairness with regard to the speed of decision-making. Further, this study develops a theoretical model of legitimacy for a specific political field.

The *methodological contributions* include a theoretically grounded method to contrast the values of various groups in a specific case and apply it to the context of Finnish forest-related decision-making. Further, the theoretical model is operationalized to measure the legitimacy of a certain political field and evaluate how it works in the context of Finnish forest policy.

The *practical contributions* of this work are to open discussion for using survey studies of citizen's views as a basis for policy-making. Comparing the values of citizens and Members of Parliament gives a vantage point to the representativeness of the current system. With regard to the context of Finnish forest-related decision-making, the study sheds light on why certain conflicts still prevail and how policy could better serve citizens' needs. Practical recommendations are made based on the findings of the study.

The research questions of this dissertation are organized according to the aims of the overall study. The publication which concerns each question is indicated in parentheses.

A) Values:

1. What kinds of forest values do citizens (I), MPs (I), and forest professionals (II) have?
2. How do the forest values of the aforementioned groups relate to each other and the official forest policy? (I, Summary)

B) Fairness:

3. How does the speed of decision-making relate to the evaluation of fairness? (III)
4. Do perceptions of fairness mediate the effect of the speed of decision-making on legitimacy evaluation? (III)

Concerning these questions, the following hypotheses are tested (the hypothesized relationships of the concepts are illustrated in Figure 5):

Hypothesis 1: Speed is quadratically related to the perceived procedural fairness of the process so that perceived procedural fairness is highest in speed levels perceived as moderate and decreases when the perception of speed increases or decreases.
Hypothesis 2: Perceived procedural fairness of the decision-making process is positively related to perceived legitimacy of the decision-making process.
Hypothesis 3a: Speed is quadratically related to legitimacy in that legitimacy is highest in moderate speed levels and decreases when the perception of speed increases or decreases.
Hypothesis 3b: The effect of speed on legitimacy is mediated by fairness judgments in that the instantaneous indirect effect is positive in slow decisions and negative in fast decisions.

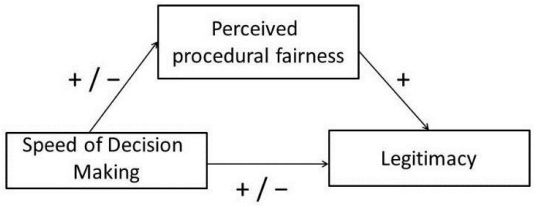

Figure 5 *The hypothesised relationships on the role of speed for perceived legitimacy mediated by perceived procedural fairness.*

C) Legitimacy:

5. How do the components of legitimacy affect perceptions of legitimacy? (IV)
6. How do forest values (I), competencies (IV, V), and speed of decision-making (III) affect the evaluation of legitimacy?

D) Context:

7. Do Finnish citizens consider the forest-related decision-making to be legitimate overall? In which respects do citizens evaluate it as legitimate and as illegitimate? (I, IV, V)
8. From where do forest-related conflicts originate and why do they continue? What recommendations can be made for Finnish forest-related decision-making based on this dissertation research? (I, III, IV, V, Discussion Section of Summary)

4 DATA AND METHODS

4.1 SAMPLES AND QUESTIONNAIRES

Three samples were used in this research. The sample of citizens was collected in 2008 via paper questionnaire, the sample of MPs in 2011 in electronic questionnaire sent via e-mail (and secondarily, a paper questionnaire was sent to nonrespondents), and the sample of forest professionals in 2002 via internet survey.

The questionnaires for the citizen and MP samples were created for the purpose of this study. The questionnaire for forest professionals was developed for another study (see Hellström, Joronen, Merjonen, Silfver, & Vihemäki, 2003). All three samples are used to handle the research questions one and two (concerning the values), as for the handling of the other research questions (3-8) is based only on the citizens' sample.

4.1.1 CITIZENS

In this nationwide mail survey, the target population was Finnish-speaking Finns over 17 years of age. The people living in Åland were excluded from the population. The Population Register Centre took a random sample of 3000 citizens, who were sent a mail questionnaire in May of 2008. After two follow-up mailings, 1260 citizens returned the questionnaire. The response rate was 42 per cent. The collection of the data is documented in detail in Valkeapää et al. (2009).

If more than half the responses were missing from the questionnaire items, the respondent was left out of the analysis. Ultimately, the data consisted of 1124 respondents.

Non-response was studied with a random sample (n = 100) taken from those who did not return the questionnaire after follow-ups. Twenty-eight were reached by telephone for an interview. The main reasons for not responding to the questionnaire were being too busy and lack of interest. The distributions of answers in the selected questions from questionnaire did not differ significantly between the non-responders and the original sample.

There were some deviations in the sample compared to the population. There were more women in the sample than men. Also people in 50-70 years were overrepresented in sample, while especially 18-40 years old males were underrepresented (Figure 6). In the sample, the share of forest owners was 36%, while forest owners make up about one fifth of the total Finnish population (Karppinen & Hänninen, 2000). Hence, forest owners were overrepresented in the sample. Forest owners and non-owners differed across some background variables.

The data was weighted with regard to gender, age and region of living. This was done by calculating the weight for each observation based on the share of the citizens in certain combination of gender x age x region of living. The share of citizens in each group was taken from population-level data in the same year 2008

when the survey was conducted (Statistics Finland). The analyses were performed always also to non-weighted data. Weighting did not have much effect on the results.

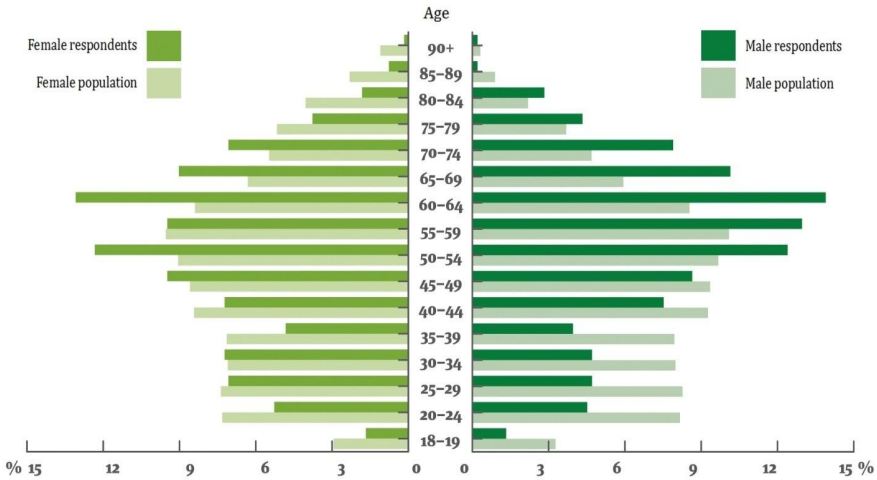

Figure 6 *Respondents in relation to population by age and gender.*

The survey questionnaire was based on theories and studies of forest values, procedural justice and legitimacy, previous studies concerning forest related decision-making, interviews with target group members, forest policy documents and discussions with officials. The theoretical base of the questionnaire was in legitimacy studies (Easton, 1965; Norris, 1999; Tyler, 2006), and studies of procedural justice (Leventhal 1980; Bies & Moag 1986; Colquit 2001). Previous surveys on legitimacy and procedural justice were used for operationalisations of these concepts (Sunshine & Tyler, 2003; Weatherford, 1992; Colquit, 2001; Bies & Moag 1986; Greenberg & Colquit (handbook)). Studies of values, legitimacy and close topics in forest field (Rantala & Primmer, 2003; Hellström, 2001) were read to find the core issues of debates in the context. Also, two focus group interviews and five individual interviews were conducted to find on which concepts, and which arguments citizens use in discussion about the values, fairness, and legitimacy regarding forest issues. Further, the list of goals of forest related decision-making was based on written goals in the National Forest Program. The list was sent to the officers in the forest department of the Ministry of Forestry and Agriculture and asked, if it covers the main goals they balance in decision-making.

The questionnaire consisted of 142 statements where respondents were asked to choose the best response alternative according to their opinion. Attitude items

provided response alternatives using four variant of five-point scales: 1) agree–disagree 2) accept–do not accept and 3) far too much–far too little 4) very important–no relevance. In addition, there were 10 background variables: gender, year of birth, forest ownership, current region of living, region of living in childhood, number of people in household, education, life situation, household's monthly income. (see the Appendix 1 for the questionnaire in Finnish).

In Study III, there was a remarkable amount of people, 27 per cent, who responded "cannot say" in the key question of the study, that is, perceived speed of decision-making. These responses were coded as missing. Even though this loss of data might be seen as problematic, I consider this as a reduction of noise in data, and understand that I received valid opinions on the issue within the responses we have (n = 867).

4.1.2 MEMBERS OF PARLIAMENT (MPS)

All 200 MPs were sent an electronic questionnaire on May 2011. Three reminders were sent afterwards. Finally 80 members of parliament responded to survey, hence, the response rate was 40 per cent. The response rates between parties varied considerably (Table 1). The parties with the highest response rates were the Christian Democrats and Social Democrats. Also more than one-third of True Finns, Green league, Centre Party and Left alliance MPs responded to the questionnaire. The response rate was the lowest for the National Coalition party. Interestingly, taking into account the representative role of MPs, a few of them explicitly refused to reply to this questionnaire.

Table 1. *Respondents, MP's in parliament and response rates by Party.*

	Responses	*MP's in Parliament*	*Response rate %*
The Centre Party	13	35	37,1
National Coalition Party	12	44	27,3
Christian Democrats	4	6	66,7
True Finns	17	39	43,6
The Swedish People's Party	3	9	33,3
Social Democratic Party	22	42	52,4
Left Alliance	5	14	35,7
Green League	4	10	40,0
Others	0	1	0,0
Total	80	200	40,0

The same set of forest relates goals were asked as was in citizens' sample with the exactly same wording and instructions. Also the general values were measured by Schwartz's PVQ questionnaire (not discussed in this thesis). With regard to backgrounds, following questions were asked: gender, year of birth, party, region of living, current living surroundings, living surroundings in childhood, forest ownership.

4.1.3 FOREST PROFESSIONALS

The data was collected by an internet survey conducted in April and May, 2002. The target group was contacted through the email lists of several forest related organisations preparing the 20th Nordic Forestry Congress (for more details, see Hellström et al. 2003:11–13). Thus, the sampling procedure was not representative but was based on information dissemination through certain forest sector organisations. A total of 1352 responses were received. The respondents' organizational sectors were industry (28%), state forestry (20%), research (14%) and public administration (13%). Most of respondents were male (82%). The mean age was 43 years, with a ranging from 25 to 65 years with a standard deviation of 10 years. Most of the respondents were from Finland (76%), followed by Sweden (11%), and Norway (9.6%). Both Iceland and Denmark made less than 30 observations and were dropped from all the analysis. In this summary, I concentrate only on the Finnish sub-sample (N = 1016).

The data collection by Hellström et al. (2003) was based on idea of four value categories with six values in each, thus, there were altogether 24 values. Further, there were four cases used as stimulus. Finally 96 Modes of Actions (MAs) were formulated to represent the 24 values in each of the four cases. (see in details from Study II) The MAs are operationalizations of values, describing concrete behavior in the case at hand.

The structure of the survey made it potentially possible to use structural equations to analyse the model suitability and modelling errors. However, the results of the confirmatory factor analysis using AMOS software showed that the survey did not succeed in measuring the theoretical constructs properly, i.e., the three-level structure (value categories, values, modes of action) was not empirically valid. Accordingly, only 96 MAs in four value categories were used in further analysis.

The survey utilized cognitive mapping (CM) to measure values. The CM software showed respondents a display where a case was placed in the centre of the screen and 24 MAs (value statements) were shown along the sides of the screen. Respondents were asked to draw each of the MA the closer to the centre the more relevant they thought it was. Values given by the software ranged from 0 to 460. It was also possible to move the MA out of the display or not touch the MA at all.

4.2 MEASURES

Forest values were studied in Studies I and II and speed and fairness were examined in Study III. Legitimacy and its components were studied in Study IV and factors affecting to legitimacy in Studies I, IV and V.

4.2.1 FOREST VALUES

The questionnaire for citizens and MPs measured the importance of 15 forest-related goals. The goals were measured by asking respondents: "How important do you consider the following forest values?" Respondents were asked to answer in each of goals on five-point scale from very important (5) to not important at all (1). The goals were the following: protecting biodiversity, support for rural livelihood, scenic values, support for employment, profitability of forestry, increasing use of wood energy, preconditions for recreation, forest owners' income, conservation of forests in northern Finland, preconditions for forest industry, increasing wood production, conservation of forests in southern Finland, cultural aspects of forests, preconditions for tourism, and revenue for state.

Economic value

This measure covered both straight economic aspects as profitability and incomes, as well as more societal goals as employment and support for rural areas. Further it included the supporting structures for forest production. While the coverage is rather large, the items correlate strongly with each other and loaded to the same factor in explorative factor analysis in Study I. The items in this measure were the following: support for rural livelihood, support for employment, profitability of forestry, increasing use of wood energy, forest owners' income, preconditions for forest industry, increasing wood production, and revenue for state.

Conservation value

This measure covered the aspects of forest conservation and biodiversity protection. The conservation of forests in northern and southern Finland was asked separately, because the situation in these parts of the country is very different. Most of the protected forests are in northern Finland, where the production of the woodland is also lower. In southern Finland, where there is more variation in forest types and therefore more biodiversity, the share of protected forests is only 2 per cent. The items in this measure were: protecting biodiversity, conservation of forests in northern Finland, and conservation of forests in southern Finland.

Recreation value

This measure focused on enjoyment and recreation in nature. It takes into account the scenery, recreation, culture and tourism aspects. The items in this measure were: scenic values, preconditions for recreation, cultural aspects of forests and preconditions for tourism.

Based on the explorative factor analysis of the Cognitive Mapping data of forest professionals, five main value scales were formed. Two of those are used in this thesis: nature conservation and forest production.

Nature conservation

This measure covers the issues of ecological needs, forest conservation, forest ecology and Everyman's Right. Three value statements were used for this scale: I suggest that the ecological needs behind the dispute will be examined and taken into account; I state that the silvicultural methods should be reformed and the level of conservation increased in order to secure the habitat of different species; and I suggest a substantial increase in forest ecology studies. Concerning multiple uses of forests, the following statements were used: I examine whether the previous contract took multiple use of forests adequately into account in the region, and I state that everyman's rights need to be secured in all forests.

Forest production

This measure focuses on users and buyers, securing production, forest management and forestry professionals. Four value statements were used for this scale: I invite parties who have good connections with forest users or with buyers of forest products; I suggest solutions that do not endanger forest use in the area; I attempt to make sure that silvicultural perspectives are sufficiently presented in the press; and, I invite actors who know forest management practices well.

4.2.2 FAIRNESS

All the items below were measured with a five-point Likert scale from fully agree (5) to fully disagree (1).

Perceived procedural fairness

Fairness was examined using Leventhal et al.'s (1980) six procedural justice rules, Bies and Moags' (1986) concept of fairness of treatment, and Colquits' (2001) informational justice. This measure consisted of the following items (α = .87): Everyone concerned has the opportunity to participate in decision-making; All parties are treated equally in decision-making; Decisions are based on up-to-date knowledge; Decisions follow ethical principles; Incorrect decisions can be dissolved; and All parties can contribute equally to decision-making. Decisions are made in 'cabinets' (reversed); Decision-making is managed in a good manner; Decisions follow ethical principles; Incorrect decisions can be dissolved; Decision-making procedures are open; and Decisions are well justified.

Speed of decision-making

The perceived speed of decision-making in forest policy was measured by asking participants to indicate their agreement with the statement: Decisions are made quickly.

4.2.3 LEGITIMACY

The scales were built to tap the components of legitimacy: perceived legitimacy, procedural justice, acceptance of outcomes, acceptance of laws, and fairness of power relations. To study the factors affecting to legitimacy evaluation forest values (see sub-chapter 4.2.1) and competence were considered. Also the system satisfaction and desire to influence were measured, to examine their association to competence-items.

Legitimacy

This measure focuses on perceived legitimacy of forest policy in general. The legitimacy measure was built to cover the idea of Tyler's (2006) definition of legitimacy as "the belief that the authorities, institutions and social arrangements are appropriate, proper and just". Given that the focus of the study is on the perceived legitimacy of forest policy, I ignore the division between authority, institutions and social arrangements, and focus on the question of whether forest policy in general is considered to be functional. Sunshine and Tyler's (2003) measure was used as an example and modified for this context. This measure focuses on the satisfaction of forest policy, compliance with the regulations and perception of the management of use and conservation issues. Four statements were used: I am satisfied with the way forest issues are managed in Finland; Forest laws and regulations have to be followed, even if they do not make much sense to me; Forest conservation is well managed in Finland; and Forests are used well in Finland. This was measured with a five-point Likert scale from fully agree (5) to fully disagree (1).

Procedural justice

Processes were examined using Leventhal et al.'s (1980) six procedural justice rules: the representativeness of participants in decision-making, suppression of bias, accuracy of information, ethical principles, mechanisms to change incorrect decisions, and consistency across individuals. Using five-point Likert scales (agree–disagree, as above), the respondents were asked to consider the following statements regarding forest-related decision-making: Everyone concerned has the opportunity to participate in decision-making; All parties are treated equally in decision-making; Decisions are based on up-to-date knowledge; Decisions follow ethical principles; Incorrect decisions can be dissolved; and All parties can contribute equally to decision-making.

Acceptance of outcomes

The outcomes were tapped by measuring the acceptance of forestry operations that cut across discussions (e.g., Rantala, 2008), specifically: forest road construction, fertilization, ditching, clearcutting and restoration. Acceptance of each activity was measured with a five-point Likert scale from totally accept (5) to not at all accept (1).

Acceptance of laws

The measure of institutions was intended to gauge the acceptance of certain forest-related laws, such as those raised in citizens' letters to the editor in Finnish newspapers (Rantala, 2008). We created seven five-point Likert scale items (accept–do not accept, as above) to gauge the acceptance of the following sections of the laws: The Forest Act determines the earliest time for final fellings; The Forest Act requires the owner to generate a new stand of seedlings after the final fellings; The Nature Conservation Act restricts fellings in forests populated by the flying squirrel; Everyman's Right allows berries to be picked in all forests; The Forest Act orders as a rule that a forest must be grown as evenly-aged; The Forest Act restricts fellings to protect the biodiversity of nature; and The Forest Act restricts a forest owner's decision-making. This was measured with a five-point Likert scale from totally accept (5) to not at all accept (1).

Acceptance of power relations

The acceptance of power relations was studied to determine the perceived fairness of power relations between stakeholder groups. The respondents were asked whether actors have too much, adequate, or too little power in forest-related decision-making. They were asked to indicate their view of each of the following stakeholders: trade organizations, MPs, nature tourism entrepreneurs, forest owners, the forest industry, forest authorities, citizens, researchers, recreationists, environmental associations and environmental authorities. The response alternatives in this scale were 1 - far too little, 2 - slightly too little, 3 - adequately, 4 - slightly too much and 5 - far too much. Since the extremes of the scale signifies dissatisfaction, and the middle option of “adequate” represents satisfaction, the responses were recoded (1 and 5 → 1, 2 and 4 → 3, 3 → 5) so that the new scale of acceptance of power relations varied from 1 (not adequate) to 5 (adequate).

Competence

The following items were used in article II with regard to the various sides of forest policy competence. *Opinion formation* was measured by “It is easy for me to have an opinion of various forest issues.” *Interest in decision-making* was measured by “I am interested in forest related decision-making.” *Conservation knowledge* was measured by “I am well acquainted with forest conservation.” Finally, f*orestry knowledge* was measured by “I know a lot about forestry.” The items were measured with five-point Likert scale from fully agree (5) to fully disagree (1).

System satisfaction and desire to influence

In study I, system satisfaction was measured by the same items that were used in legitimacy measure, excluding compliance with the regulations. The three statements were: I am satisfied with the way forest issues are managed in Finland; Forest conservation is well managed in Finland; and Forests are used well in Finland. In study II, satisfaction with the system was measured by one statement: I am satisfied with the way forest issues are managed in Finland. The desire to influence, which concerned the desire to make a change as well as the will to exert power over the resource, was measured by: I would like to influence forest-related decision-making. The items were measured with five-point Likert scale from fully agree (5) to fully disagree (1).

Individual characteristics

Competence and ingenuousness are studied as factors that affect legitimacy evaluation. To tap competence, the following five items measured the various aspects of subjective forest policy competence, forest related knowledge and interests: It is easy for me to have an opinion of various forest issues; I am interested in forest related decision-making; I would like to influence on forest related decision-making; I am well acquainted with forest conservation; I know a lot about forestry. The items were measured with five-point Likert scale from fully agree (5) to fully disagree (1).

Ingenuousness refers to how much one relies on other people and accepts life in general. It was measured with following statements: Most people can be trusted; Most people think only on themselves (reversed); Most people try to take advantage of others (reversed); Life has become unpredictable (reversed); My issues will work out well by planning; and, I am satisfied with life.

4.3 STATISTICAL METHODS

Cross-sectional survey methodology was used to answer the research questions. The description of the methods are organised within the research aims and are presented in terms of the separate studies as follows: A) Forest values (Studies I, II); B) Fairness and speed of decision-making (Study III); C) Legitimacy and its components (Study IV) and factors affecting legitimacy, of which forest values in Study I, the competence in Studies IV and V. The methods concerning the context (aim D) will be covered within other aims.

4.3.1 FOREST VALUES

Citizens & MPs

Exploratory factor analysis (EFA) with maximum likelihood extraction and varimax rotation was performed for both datasets. Three factors were extracted for both group, basing our decision on Kaisers' criterion and contentual interpretation. Transformation analysis (Ahmavaara, 1954) which is a special form of procrustres analysis was conducted to determine if the factor structures were similar in these groups. Since the transformation matrix was very close to the identity matrix, the factor structures in both groups can be considered similar. The residual matrix revealed some differences between citizens and MPs on few items.

Since the factor structures were discovered similar, there were good grounds to form scales and compare citizens' and MPs' values. Scales are used instead of factor scores in order to keep the value scales proportional to each other and compare the importance of values. Based on the explorative factor analysis, three value scales were built: *economic* (support for rural livelihood, support for employment, profitability of forestry, increasing use of wood energy, forest owners' income, preconditions for forest industry, increasing wood production, revenue for state), *conservation* (protecting biodiversity, conservation of forests in northern Finland, conservation of forests in southern Finland) and *recreation* (scenic values, preconditions for recreation, cultural aspects of forests, preconditions for tourism) values. The Cronbach's alphas, in respective order, in the citizen sample were .75 (8 items), .67(3 items), .60 (4 items) and in the MP sample .51, .76, and .38.

The variance of respondents in using the response alternatives was taken into account by weighting the responses by response style. First, the personal average of certain items was calculated. Next, all responses to the original items were divided with that average. Finally, for each scale, the average of the weighted items was calculated.

Confidence intervals were used to inspect the differences between forest values in the citizens' sample as well as in the MPs' sample. Because the three forest values were correlated and all of them are fall into my interests, a multivariate analysis of variance (MANOVA) was used to analyze the differences between forest values with regard to background variables in both samples. Since the group sizes in various background groups were unequal but the homogeneity of covariance matrices could be assumed in most of the cases, Pillai's trace statistic was used to detect differences between background groups. The independent samples t-test was used to compare the value scales between MPs and citizens.

Professionals

The measurement of 96 Modes of Actions (MAs) was a mixture of ordinal and interval scales. The program used gave the value from 0 to 460 where the bigger the value the more important it was considered. There was also possibility to leave the MA untouched or move out, in case it was considered to be agains respondents'

values. In order to reduce unintentional variation in measurements and to interpret the observations "untouched" and "moved out", we scaled all responses of MAs as ordinal measures; if the MA was moved out, it was given value 1 and when it was untouched, it was given value 2. The MAs that moved towards center were coded with 3-6 with regard to importance.

To find out what kind of factors were possible to find in the data, the explorative factor analysis was carried out separately in each of the four value categories, using the maximum likelihood method with varimax-rotation. See the procedure in more details in Study II.

Five main value factors were found and labelled as follows: private forestry, nature conservation, tradition, expertise, and forest production. The sum variables for these were formulated based on the factor analysis and calculated as the means of the respective MAs.

The main value factors were analysed relating to the following background variables: nationality, occupational position, type of sector, gender and age group. The group means were analyzed by a nonparametric Kruskal-Wallis test.

Comparison of citizens, MPs and forest professionals

To compare forest values of three groups, citizens, MPs and forest professionals; I contrast the economic and nature conservational values of these groups. This procedure is based on Schwartz's (1992) value theory and its idea that values form motivational continuum. The opposite values in value circle are opposite in that sense, that if one emphasize one value, it is not possible at the same time emphasize the opposite. Since economical values manifest power values and conservational values express universal values, and power and universalism are at the opposing values, thus, economical values and conservational values can be seen as opposite.

To dissect in which values the differences were between citizens and MPs, independent samples t-tests with bonferroni correction were used. The equality of variances could not be assumed; the variances in MP's sample were remarkably lower than in citizen's sample.

Forest professionals were asked different questions but the same Schwartz's values, power and universalism were found in two factors that were studied.

4.3.2 FAIRNESS

The role of speed of decision-making in fairness evaluation

Firstly, descriptive and bivariate analyses were conducted for the main variables. Secondly, procedural fairness was tested as a mediator of the relationship between speed and legitimacy in nonlinear mediation. The testing of the mediation was done in three steps. In the first step, a quadratic regression analysis was conducted to attain the total effect of speed on legitimacy. Then, a quadratic regression analysis was conducted to attain the effect of speed on procedural fairness. Subsequently, the Hayes and Preachers (2010) SPSS MEDCURVE macro was used to estimate the

direct effect of speed on legitimacy and the instantaneous indirect effects of speed at one standard deviation below the mean, the mean and one standard deviation above the mean of speed. The analyses were performed using SPSS software, version 21.0.0.0.

4.3.3 LEGITIMACY

Components of legitimacy

To explain perceived legitimacy using components of legitimacy as predictors, the formative approach was used, because in this case the items can be seen if they define the constructs rather than being manifested by them (see e.g., Coltman, Devinney, Midgley, & Venaik, 2008; Jarvis, Mackenzie, & Podsakoff, 2003). The general linear models using OLS regression were estimated separately for forest owners and non-owners. Multicollinearity was not at a noteworthy level in the models; VIF factors were below 2 for all explanatory variables. In addition, three background variables were considered. For all respondents, area of residence in the country and household income were measured; for forest owners, the size of the forest estate was also taken into account.

Differences in perceptions between forest owners and other citizens were examined based on the attitude scales and the original items. The sum scales were approximately normally distributed, and the variances were approximately equal; thus, the *t*-test was used for the scales. Since the items were measured on a Likert scale, the Mann–Whitney test was used.

Personal factors affecting legitimacy: Forest values

First, the validity of the structure was tested with confirmatory factor analysis. Then structural equation modelling (SEM) was used to find out how emphasising these three values affect the evaluation of the legitimacy of the forest policy among citizens. The structural equation modelling was performed using Mplus Version 5.21 (Muthen & Muthen, 2009).

Since the χ^2 measure is very sensitive to sample size, Hu & Bentler (1999) have suggested criteria for fit statistics to evaluate the goodness of a hypothesized model and observed data. For large samples, a Comparative Fit Index (CFI) and a Tucker-Lewis Index close to .95 indicate good fit. Further, the Root Mean Square Error of Approximation (RMSEA) less than .06 is considered to indicate good fit.

Personal factors affecting legitimacy: Competence

The responses to the items sre reported based on agreeness (response alternatives 4 partly agree and 5 totally agree). The relationships between items were first examined by Spearman's correlations. Then, the effect of different competence items on legitimacy were dissected in two ways. Firstly, the relationship between system satisfaction and the desire to influence, and competence items, was analyzed with Pearson's chi-square test of independence. Secondly, the equality of means in

system satisfaction and the desire to influence in each of the competence items group, item by item, were tested by Kruskal-Wallis analysis of variance. Finally, the differences in groups were considered by contrasting the most extreme groups. Non-parametric tests were used, because the parametric test's assumptions of equality of variances were not met in this data.

4.3.4 CONTEXT RELATED ANALYSIS

Differences in perceptions between forest owners and other citizens were examined based on the attitude scales and the original items. The sum scales were approximately normally distributed, and the variances were approximately equal; thus, the *t*-test was used for the scales. As for the items, which were measured on a Likert scale, the Mann–Whitney test was used.

5 RESULTS

5.1 FOREST VALUES

Research question one concerned the forest values of three groups, specifically, those of citizens, MPs and forest professionals. These groups are considered in separate sub-chapters. The last sub-chapter deals with research question two, about the comparison of the forest values of citizens, MPs, and forest professionals.

Economic, conservation and recreation values are studied in both the citizens' and MPs' samples while nature conservation and forest production values are studied in the same of forest professionals.

5.1.1 CITIZENS' VALUES

The descriptive statistics of economic, conservation and recreation value scales are presented in Table x. The 95 per cent confidence intervals of three forest values did not overlap with each other, so there were significant differences how citizens emphasized forest values. Citizens most appreciated the conservation value (M = 1.12, SD = 0.27), then recreation (M = 1.02, SD = 0.22), and lastly the economic value of forests (M = 0.95, SD = 0.15). There was remarkably more dispersion concerning the conservation value (SD = 0.27, range = 1.80) as compared to economic value (SD = 0.16, range = 1.07). The correlations between values were all statistically significant. The correlation between conservation and recreation values was positive, and the correlations of both of these with economic value were negative (see Table 2).

Table 2. *Descriptive statistics and 95 % confidence intervals of the forest value scales in the citizen sample.*

						95 % C.I.		Correlations			
	M	*SD*	*min*	*max*	*SEM*	*lower*	*upper*	*1*		*2*	
1 Economical	0.95	0.16	0.57	1.65	0.0047	0.94	0.96				
2 Conservational	1.12	0.27	0.28	2.08	0.0081	1.11	1.14	-0.70	***		
3 Recreational	1.02	0.22	0.31	1.92	0.0066	1.00	1.03	-0.71	***	0.35	***

****) correlation is significant at the .001 level*

The background of citizens affected the evaluation of the importance of forest values. However, it is also worth pointing out that while there were differences in how the values were emphasized depending on background, the conservation value was considered most important in every background group with the exception of the people from Eastern Finland and the oldest age group (people over 65 years), where economic value was considered as important as conservation. The economic and

recreation values were the least important but the precise placing varied across background groups. The means and standard deviations of forest values in each background group can be found in study IV.

Gender had significant effect on values, $F(3, 1125) = 7.91$, $p<.001$. Females valued more conservation and recreation values while males gave more emphasis to economic value.

Age had a remarkable effect on how citizens emphasized forest values $F(9, 3381)=12.58$, $p<.001$. The older people were, the more they underlined economic value and the less they supported conservation and recreation values. The order of values were the same in age groups under 65, so that conservation was the most important, then recreation and lastly economic value. For people over 65 years, however, the economic value was as important as conservation value while recreation value was least important.

Region of residence also had an effect on forest values $F(12, 3363)=7.06$, $p<.001$. Southern Finland deviated from the rest of the country, except Lapland, concerning economic and conservation values. The order for values was same in other regions, except in Eastern Finland economic and conservation values were almost as important and recreation was least important.

Living surroundings had significant effect on forest values, $F(9, 3369)=8.25$, $p<.001$. Economic value was considered more important in sparser populated surroundings. Conservation and recreation values were emphasized the more the denser the population was. However, the conservation value was most important in all living surroundings. The recreation value was second in all other than rural areas, where the economic value vas second in importance.

Education had a striking effect on forest values, $F(6, 2156) = 12.27$, $p < .001$. Among the more educated, there was less appreciation for economic value and conservation and recreation were more valued. However, statistically significant differences between income groups were not found with regards to these values, $F(12, 3246) = 0.82$, $p = .634$.

Forest owners and other citizens differed from each other concerning values $F(1, 1130) = 96.53$, $p < .001$. However, for both groups the conservation value was the most important. For forest owners, economic value was second most important and the recreation value least important, while for non-owners economic value was least important.

5.1.2 MEMBERS' OF PARLIAMENT VALUES

Descriptive statistics of forest value scales for MPs are presented in Table 3. The 95 per cent confidence intervals of three forest values indicate that the conservation value did not differ significantly from either of other two values but MPs considered economic value more important than recreation value. MPs emphasized most the economic ($M = 1.02$, $SD = 0.12$) and conservation values ($M = 0.99$, $SD = 0.23$). The recreation value was least important for them ($M = 0.93$, $SD = 0.15$).

As among the sample of citizens, there was remarkably more dispersion concerning conservation ($SD = 0.23$, range = 1.11) than economic value ($SD = 0.12$,

range = 0.52). The correlations of economic value with conservation and recreation values were significantly negative but there was no correlation between conservation and recreation values (see Table 3).

Table 3. *Descriptive statistics and 95% confidence intervals of the forest value scales in the MP sample.*

						95 % C.I.		Correlations			
	M	*SD*	*min*	*max*	*SEM*	*lower*	*upper*	*1*		*2*	
1 Economical	1.02	0.12	0.75	1.27	0.013	1.00	1.05				
2 Conservational	0.99	0.23	0.42	1.53	0.025	0.94	1.04	-.678	***		
3 Recreational	0.93	0.15	0.45	1.23	0.017	0.90	0.96	-.551	***	-.001	ns

****) correlation is significant at the 0.001 level*

ns) correlation is non-significant.

The effect of most background variables was not significant. However, there were differences between background groups. With regard to gender and forest ownership, the differences were rather similar with citizens. These differences did not reach statistical significance because the sample size of MPs was quite small. Non-significant differences with regards to background variables can be seen in study I.

The only statistically significant differences were detected from current living surroundings and party membership. Current living surroundings had a significant effect, $F(9, 216) = 2.43$, $p = .012$. Economic value was considered less important for MPs residing in bigger cities compared to more sparsely populated surroundings. With regard to conservation, MPs from rural places emphasized this value less than MPs from big cities.

Party membership had significant effect $F(21, 213) = 3.10$, $p < .001$. Conservative right-wing parties as well as the populist True Finns party emphasized economic value and less conservation, while left-wing and the Green parties emphasized more conservation and less economic value. With regard to recreation values, party membership did not play a significant role.

5.1.3 FOREST PROFESSIONALS' VALUES

Descriptive statistics of the forest value scales (these are called main value factors in study II) are shown in Table 4. The value scales varied mainly from 1 to 6, with expertise and forest production being exceptional and having minimum values of 1.60 and 1.50, respectively. Standard deviations for most scales were very close to each other, varying from 0.85 to 0.89; the exception was forest production with a standard deviation of 0.96.

The nature conservation and forest production factors were used in this thesis since they represent the same opposite dimensions of Schwartz's model, that is, universalism and power values, that were detected from the citizens' and MP's

samples. Forest professionals emphasized forest production (M = 4.27, Md = 4.50) more than nature conservation (M = 4.08, Md = 4.20). The 95 % confidence intervals did not overlap, thus there is difference between nature conservation and forest production.

Table 4. *Descriptive statistics of value scales for forest professionals.*

	Min	*Max*	*M*	*Md*	*SD*	*95% C.I.*	
						lower	*upper*
Private Forestry	1.33	6.00	4.36	4.50	.87	4.32	4.43
Nature Conservation	1.00	6.00	4.08	4.20	.94	4.04	4.16
Tradition	1.00	6.00	3.60	3.80	.93	3.55	3.67
Expertise	1.75	6.00	4.50	4.75	.88	4.45	4.56
Forest Production	1.50	6.00	4.27	4.50	.95	4.23	4.35

People employed in the forest industry valued nature conservation less (Md_{NC} = 4.00) and forest production more (Md_{FP} = 4.75) compared to non-industry employed people (Md_{NC} = 4.17, Md_{FP} = 4.25). Younger professionals valued nature conservation a bit more, but the difference was not statistically significant.

5.1.4 COMPARISON OF ABOVE-MENTIONED GROUPS

With regard the comparison of citizens and MPs all the three forest values were used. Significant difference in emphasize in three forest values was found between MP's and citizens, $F(3,1207) = 13.18$, $p < .001$. MP's emphasized more economic value than citizens $t(96.7) = -6.98$, $p < .001$ and less conservation $t(94.6) = 3.88$, $p < .001$ and recreation values $t(100.6) = 3.31$, $p = .004$.The estimated marginal means are shown in Figure 7.

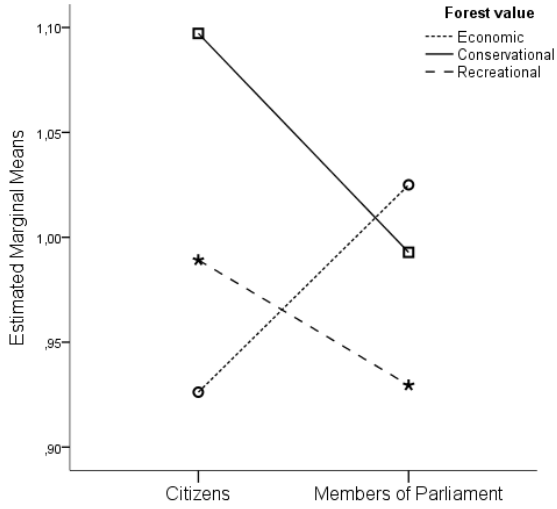

Figure 7 *Estimated marginal means of forest values for citizens and MPs.*

In the citizens' sample, the mean of economic value was 0.93 (SD = 0.16) and mean for conservational values was 1.11 (0.27), and the 95% confidence intervals of these values did not overlap. Thus, there was remarkably more importance in conservation value compared to economic value among citizens. In MPs sample, the mean of economic values were 1.02 and the mean for conservational values were 0.99, and the 95% C.I. overlapped clearly. Thus, the MPs on average emphasized more or less as much these two values.

For forest professionals the forest production, representing the power values, scored among the highest values with median being 4.50 and nature conservation, manifesting universalism value, median was 4.17. Only tradition factor was lower in importance within professionals. Thus, forest professionals emphasized more power than universalism value.

In conclusion, citizens emphasized more conservation than economic value, for MPs these were almost equally important and forest professionals accentuated more the economic than conservation value.

5.2 FAIRNESS AND SPEED OF DECISION-MAKING

Research question three asks, how does the speed of decision-making relate to fairness evaluation, and research question four, how the fairness perceptions mediate the effect of the speed of decision-making on legitimacy evaluation. These questions are handled parallel.

On average, perceived procedural fairness and speed were evaluated slightly negatively (since 3 is considered neutral) and legitimacy was evaluated slightly positively in the overall sample (see Table 5.10). Legitimacy and perceived procedural fairness correlated strongly with each other ($r = .53$, $p < .001$), and speed and perceived procedural fairness also correlated positively ($r = .13$, $p < .001$). The correlation between speed and legitimacy was close to zero and non-significant. The means, standard deviations and correlations among the scales are presented in Table 5.

Table 5. *Means, standard deviations and correlation coefficients of the main variables.*

	Mean	*SD*	*1*	*2*
1. Legitimacy	3.31	0.79		
2. Perceived procedural fairness	2.55	0.69	.53***	
3. Speed	2.71	1.02	.02	.13***

*Note! *** p < .001*

First, a quadratic regression analysis was performed, where speed and speed to the power of two were entered in the regression to predict perceived procedural fairness. Perceived procedural fairness was explained by speed ($\beta = 1.24$, $p < .001$) and speed2 ($\beta = -1.13$, $p < .001$), $R^2 = .076$. Thus, hypothesis 1 was confirmed. Please see the regression coefficients of the regression models in Table 6 and Figure 88.

Secondly, legitimacy was explained by fairness perceptions with an OLS regression. Fairness perceptions explained legitimacy significantly: $\beta = .53$, $p < .001$, $R^2 = .23$.

Thirdly, a quadratic regression analysis was performed, where speed and speed to the power of two were entered in the regression to predict legitimacy. The total effect of speed ($\beta = .73$, $p < .001$) and speed^2 ($\beta = -.73$, $p < .001$) $R^2 = .03$ on legitimacy was significant. Hence, with regard to the hypothesis 3a, the quadratic total effect of speed on legitimacy was confirmed. In terms of mediation, the direct effect of speed on legitimacy was nonsignificant when the procedural fairness effect was added to the model. The instantaneous indirect effect of speed on legitimacy through procedural justice was found to be significant. This effect was positive in slow decisions, $\theta speed=1.70 = .23$, with 95% Bias Corrected Bootstrap CI [0.172, 0.293] and moderate decisions, $\theta speed=2.71 = 0.08$, BCB CI [0.047, 0.107], and negative with fast decisions $\theta speed=3.73 = -0.08$, BCB CI [-0.140, -0.014]. As such, hypothesis 3b was confirmed. There was full nonlinear mediation effect where procedural fairness mediated the effect of speed on legitimacy.

Table 6. *Regression analyses summary (N = 846)*

Dependent / Independent variables	*B*	*SE B*	*β*	*p*	R^2
Perceived procedural fairness					0.08
Speed	0.83	0.10	1.23	< .001	
Speed2	-0.13	0.02	-1.13	< .001	
Legitimacy					0.23
Perceived procedural fairness	0.60	0.03	0.53	< .001	
Legitimacy					0.03
Speed	0.56	0.12	0.73	< .001	
Speed2	-0.10	0.02	-0.73	< .001	
Legitimacy					0.28
Speed	0.07	0.11	0.09	0.534	
Speed2	-0.02	0.02	-0.14	0.304	
Perceived procedural fairness	0.60	0.03	0.53	< .001	

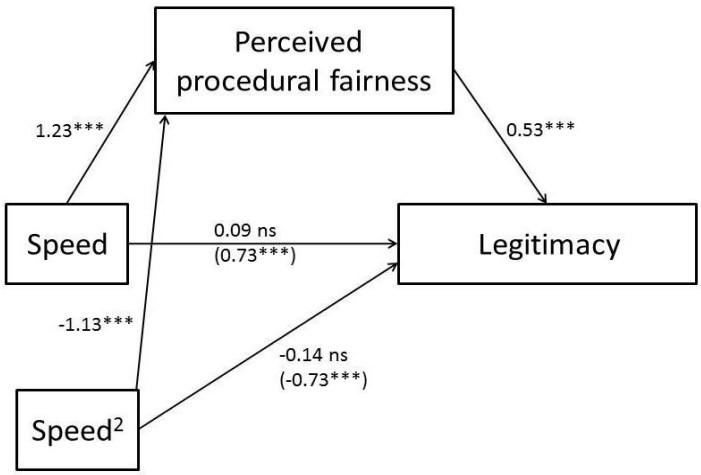

Figure 8 *Standardized beta-coefficients for a quadratic model about the role of speed for perceived legitimacy mediated by perceived procedural fairness (N = 846). Coefficients in parentheses represent the direct effect without the mediator variable. *** p < .001.*

5.3 LEGITIMACY

The research question five concerns the components of legitimacy: What are the components of legitimacy in a certain political field? How these can be measured among citizens within the defined context? How do they affect perceptions of legitimacy? Research question six is about the factors affecting legitimacy perceptions: how do forest values, competencies, and the speed of decision-making affect the evaluation of legitimacy?

5.3.1 COMPONENTS

Descriptive statistics for perceived legitimacy and its predictors for forest owners and other citizens are shown in Table 7.

Table 7. *Overall legitimacy and its predictors. Means for forest owners and other citizens and p-values for equality of means.*

	Non-owners	*Forest owners*	*t*	*p*
Legitimacy	3.3	3.4	-2.076	.038
Justice of procedures	2.5	2.6	-2.145	.032
Acceptance of forestry operations	3.1	3.3	-5.188	<.001
Acceptance of laws	3.8	3.5	7.974	<.001
Acceptance of power relations	3.3	3.4	-2.396	.022

Regression models to explain legitimacy were estimated separately for general citizens and forest owners. The explanatory variables were: justice of procedures, acceptance of forestry practices, acceptance of institutions, and acceptance of power relations. Also background variables were included in the model: forest policy competence, ingenuousness, household monthly incomes, and, for forest owners, also the size of forest holdings (with natural logarithmic transformation to normalize the distribution). The model explained 34 per cent of variation in the case of non-owners and 37 per cent in the case of forest owners (Table 8).

Table 8. *Regression models explaining legitimacy for non-owners and forest owners. (Standardized coefficients, t-statistics, and significances).*

	Non-owners			Forest owners		
	β	*t*	*p*	*β*	*t*	*p*
(Constant)		3.025	.003	2.427	0.016	
Justice of procedures	0.298	8.111	.000	0.348	7.030	.000
Acceptance of forestry operations	0.273	7.907	.000	0.288	6.119	.000
Acceptance of laws	0.005	0.146	.884	-0.032	-0.700	.484
Acceptance of power relations	0.152	4.301	.000	0.070	1.412	.159
Forest policy competence	-0.066	-2.039	.042	-0.133	-2.915	.004
Ingenuousness	0.078	2.174	.030	0.156	3.358	.001
Household monthly income	0.076	2.302	.022	-0.032	-0.708	.480
Size of forest holding				0.115	2.460	.014
R-square			.348		.386	
Adj. R-square			.341		.371	
n			645		330	

Procedural justice and the acceptance of forestry operations had a positive effect on perceived legitimacy among both groups, while the effect of the acceptance of laws was not significant in either group (see coefficients, t-values, and significances in Table 5.1). For non-owners, the acceptance of power relations had a statistically significant positive effect on legitimacy. Ingenuousness had a positive effect and forest policy competence a negative one, on perceived legitimacy in both groups. Also, household incomes correlated with legitimacy in this group: wealthier citizens were more approving than poorer citizens. For forest owners, income did not have an effect, but forest estate had a significant positive effect: the larger the forest, the more legitimate the forest policy was considered to be.

5.3.2 FACTORS AFFECTING TO LEGITIMACY PERCEPTIONS

First, I present how forest values affect perceptions of legitimacy. Secondly I deal with competence and its effects on system satisfaction (i.e., one item in the measurement of legitimacy) as well as the willingness to participate in forest-related

decision-making. Thirdly, I show how the speed of decision-making is related to legitimacy via perceived procedural fairness.

Forest values

With Hu's and Bentler's (1999) criteria, the fit of the tested model was good: $\chi^2(82) = 389$, CFI = .94, TLI = .96, RMSEA = .055. The emphasis on economic value increased satisfaction ($\beta = .15$, $p < .001$) and the emphasis on conservation decreased it ($\beta = -.44$, $p < .001$), while the effect of recreation was non-significant (Figure 9). Economic value was negatively correlated with the conservation ($\beta = -.51$, $p < .001$) and recreation values ($\beta = -.28$, $p < .001$). The conservation and recreation values were highly correlated ($\beta = .82$, $p < .001$), which explains why the regression weight for recreation on legitimacy remains non-significant.

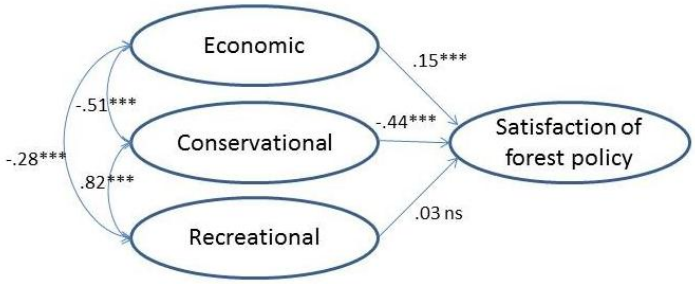

Figure 9 *Standardized regression coefficients in the model. ns for non-significant, *** for p < .001.*

Competencies

Almost half of respondents (48.2%) were satisfied with the way forest issues are managed in Finland and many (40.3 %) would like to exert influence on forest-related decision-making. Most of the respondents (66.7%) were interested in forest-related decision-making and responded that they can easily form an opinion on forest issues (51.2 %). But only a few reported having knowledge of forest conservation (22%) and even fewer of forestry issues (19%).

Spearman's correlations in Table 9 show that the knowledge items (3-6) were strongly correlated with each other. The correlation between system satisfaction and the desire to influence was weakly negative. System satisfaction was not associated with all competence items, but to those which it was, the correlations were negative. Desire to influence was positively correlated with all competence items. Conservation knowledge and forestry knowledge were highly correlated (rho = .64) and they behaved in quite same way with other items. However, conservation knowledge was negatively associated with system satisfaction, while forestry knowledge's correlation was close to zero. The desire to influence had a slightly

stronger correlation with conservation knowledge (rho = .44) than with forestry knowledge (.40).

Table 9. *Spearman's correlations for the satisfaction, desire to influence and competence items.*

Spearman's rho	*1*	*2*	*3*	*4*	*5*
1 System satisfaction					
2 Desire to influence	-.15 **				
3 Opinion formation	.00	.40 **			
4 Interest in decision making	-.09 **	.61 **	.52 **		
5 Conservation knowledge	-.07 *	.44 **	.49 **	.46 **	
6 Forestry knowledge	.01	.40 **	.51 **	.45 **	.64 **

*Note! **) Correlation (2-tailed) is significant at the 0.01 level, and *) at the 0.05 level.*

Pearson's chi-square test of independence was used to analyse if system satisfaction and the desire to influence were affected by competence items. For system satisfaction, it showed significant effects for all knowledge variables ($p < .001$), but forestry knowledge did not have as strong of an effect ($p=.011$) on system satisfaction as other competence items (Table 5.8). For the desire to influence, there were significant effects for all competence items ($p < .001$). Thus, both system satisfaction and the desire to influence were not distributed evenly in different levels of these competence items.

Table 10. *Chi-square independence test for system satisfaction and desire to influence. Test statistics and their significances.*

	System satisfaction		*Desire to influence*	
Independence test	χ^2	*Asymp. sig.*	χ^2	*Asymp. sig.*
Opinion formation	54.5	<.001	372.4	<.001
Interest in decision making	77.7	<.001	956.3	<.001
Conservation knowledge	45.9	<.001	434.6	<.001
Forestry knowledge	31.7	=.011	293.8	<.001
	df=16		*df=16*	

The effect of competence on system satisfaction was examined by contrasting the most extreme answers on knowledge questions (i.e., totally disagree and totally agree). However the effects were looked with all competence levels and the other

levels settled logically between these two extremes. For clarity, only the extremes are shown in the figures.

The general feature in Figure 10 is that there were only a few respondents who totally agree or disagree with system satisfaction; as a result, three alternatives in the middle were most popular. Another visible finding is the M-shape for the most competent respondents, many neutral answers were not given, but rather many partial agreements and disagreements. Whereas the least competent ones have a one-peak shape distribution, with the peak at partly agree and a lot of neutral answers. Further, those who had knowledge of forest conservation issues tended to be less satisfied, while people who had knowledge of forestry tended to be more satisfied.

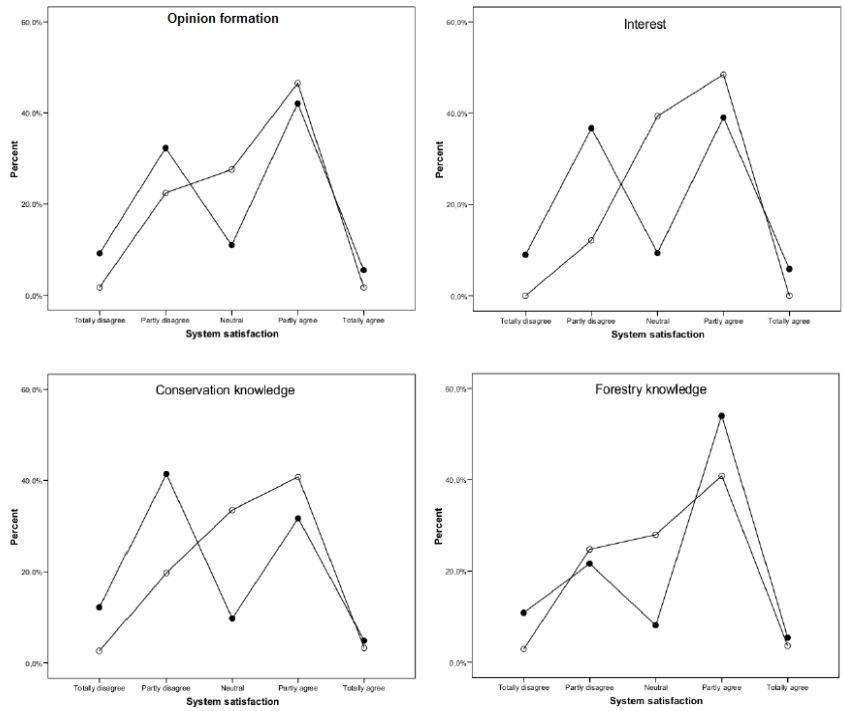

Figure 10 *The interrelation of system satisfaction with various forms of competence. Filled circle = the most competent, empty circle = the least competent*

In the case of the desire to influence, the situation was more straightforward: there were obvious differences in distributions (Table 10) and the correlations show the direction (Table 9): the greater the subjective competence, the more desire to influence decision-making. The contrasts of the most extreme answers on knowledge questions (i.e., totally disagree and totally agree) are shown in Figure 11.

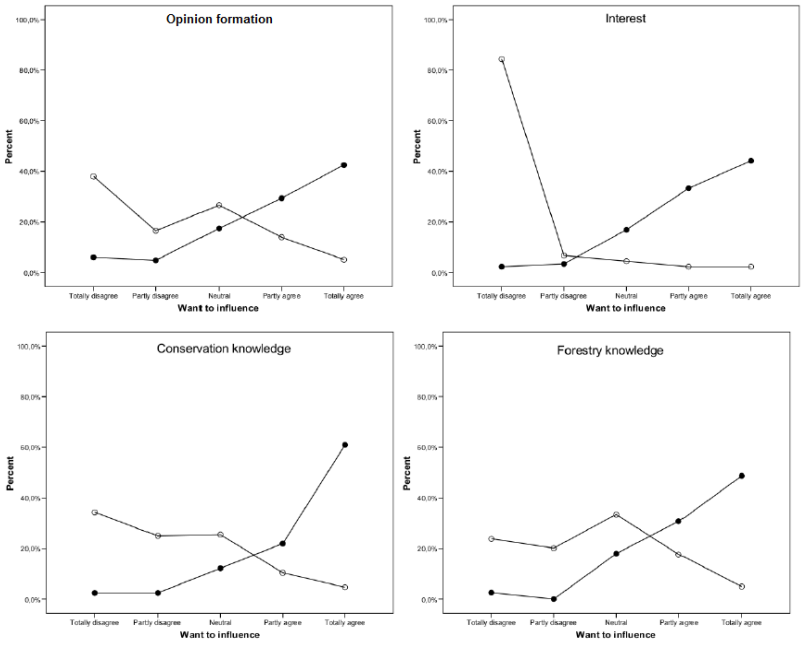

Figure 11 *The interrelation of the desire to influence with various forms of competence. Filled circle = the most competent, empty circle = the least competent*

5.4 FOREST ISSUES

Legitimacy and all predictors were evaluated positively[1] by both groups with one exception. The justice of procedures was evaluated negatively by both groups (Table 7). Forest owners saw forest policy as more legitimate, with regard to their satisfaction and how appropriate they considered forest policy to be, than non-owners.

The justice of procedures was the strongest predictor for legitimacy, and it was also the most clearly negatively evaluated predictor. Non-owners were slightly more critical of procedural justice than the forest owners. In five out of six of Leventhal et al.'s (1980) criteria for procedural justice (representativeness, consistency, bias suppression, correctability, and ethicality), forest policy had a negative evaluation (Table 11). The consideration of different parties' viewpoints and their treatment received the most criticism. However, the use of new information was the most positively evaluated element of procedural justice.

[1] Since 3 is the neutral answer, a mean above 3 is considered to be a positive perception and a mean below 3 a negative one. However, there is an exception with the acceptance of power relation scale, where the meaning of the numbers cannot be interpreted in the same manner since the scale was modified from the original.

Forest owners were more approving of the current forestry operations than were other citizens. The only exception was the goal of restoring forests to a more natural state, which was more acceptable to non-owners. The operations were, on average, evaluated positively by both groups. The exception was clearcutting, with 76% of non-owners and 56% of forest owners disapproving[2] of this method.

The acceptance of laws also explaines strongly the perceptions of legitimacy and it received generally positive scores from both groups. However, forest owners considered forest-related laws to be less acceptable in all measured aspects than did other citizens. Forest owners' evaluations were negative, while other citizens' were positive on the items "The Nature Conservation Act restricts fellings in forests populated by the flying squirrel" and "The Forest Act restricts the forest owner's decision-making." A remarkable difference was detected in the item "The Forest Act restricts fellings to protect the biodiversity of nature," forest owners did not agree as much as other citizens, although both groups had positive stands on this issue. Even-aged forest management (statement: The Forest Act orders as a rule that a forest must be raised as even-aged) was evaluated negatively by both groups. On the other hand, Everyman's Rights (statement: Everyman's Right allows berries to be picked in all forests) was highly endorsed; this was the most positively evaluated statement in the whole questionnaire.

For non-owners, as opposed to forest owners, the acceptance of power relations predicted legitimacy. Forest owners were somewhat more willing to accept current power relations than other citizens, as measured by overall acceptance. Using the original scale (where 1 is far too little and 5 far too much power, in Table 11), the forest industry was considered, on average, by both groups to have too much power. Conversely, ordinary citizens, forest owners, recreationists, nature tourism entrepreneurs, and researchers were regarded as having too little power. Forest owners thought that environmental authorities and associations have too much power. Understandably, forest owners believed that they have too little power, and the general population rated citizens and recreationists as having too little power in decision-making.

Table 11. *Means of items for forest owners and other citizens and p-values for equality of means. Note! Acceptance of power relations: 5 is for too much power, 1 is for too little power.*

Legitimacy	*Forest owners*	*Non-owners*	*p*
I am satisfied with the way forest issues are managed in Finland.	3.2	3.1.	.049
The forest laws and regulations have to be followed, even if they do not make much sense to me.	3.2	3.4	.009
Forest conservation is well managed in Finland.	3.6	3.3	<.001
Forests are used well in Finland.	3.5	3.3	.003

Table continues in next page

[2] Share of respondents answering not at all accept and not quite accept.

Justice of procedures			
Everyone concerned has the opportunity to participate in decision making.	2.7	2.5	.060
All parties are treated equally in decision making.	2.5	2.3	.005
Decisions are based on up-to-date knowledge.	3.1	2.9	.035
Decisions follow ethical principles.	2.8	2.6	<.001
Incorrect decisions can be reversed.	2.6	2.5	.693
All parties can contribute equally to decision making.	2.2	2.2	.938
Acceptance of forestry operations .			
Forest road construction	4.0	3.6	<.001
Fertilization	3.4	3.2	.011
Ditching	3.4	3.0	<.001
Clearcutting	2.6	1.9	<.001
Restoration	3.4	3.9	<.001
Acceptance of laws			
The Forest Act specifies the earliest time for final fellings.	3.7	3.8	.103
The Forest Act requires the owner to generate a new stand of seedlings stand after final felling.	4.3	4.5	.003
The Nature Conservation Act restricts the fellings of the forest populated by the flying squirrel.	2.8	3.3	<.001
Everyman's right allows berries to be picked in all forests.	4.6	4.8	<.001
The Forest Act requires as a rule that the forest must be managed as even-aged.	2.6	2.9	<.001
The Forest Act restricts fellings because of biodiversity.	3.4	4.0	<.001
The Forest Act restricts the forest owner's decision making.	2.7	3.2	<.001
Acceptance of power relations .			
Trade organizations	3.2	3.0	.007
Members of Parliament	3.3	3.3	.349
Nature tourism entrepreneurs	2.9	2.7	<.001
Forest owners	2.1	2.7	<.001
Forest industry	3.6	3.8	<.001
Forest authorities	3.5	3.4	.014
Citizens	2.3	1.9	<.001
Researchers	2.8	2.4	<.001
Recreationists	2.8	2.2	<.001
Environmental associations	3.6	2.9	<.001
Environmental authorities	3.5	3.0	<.001

6 DISCUSSION

The aim of this dissertation was to investigate values in, and the fairness and the legitimacy of, Finnish forest and nature conservation policy. In the following discussion section, I will summarize the findings and the overall study's theoretical, methodological and practical contributions. The *theoretical contribution* was to present speed of decision-making as new principle of procedural justice. Thus, the uncertainty management model and the concept of procedural fairness are developed with regard to the speed of decision-making. Further, a model by which the legitimacy of a specific political field could be measured was developed. The *methodological contribution* of the dissertation was the operationalization of a theoretical model for measuring the legitimacy of a certain political field, and its successful implementation in the context of Finnish forest policy. The *practical contribution* of this work was to bring citizen's views forward as a basis for policy-making. The comparison of the values of citizens and Members of Parliament gives a vantage point to the representative democracy and opens discussion about the practical goals of forest policy. With specific regard to the context of Finnish forest-related decision-making, the study brings understanding on why certain conflicts still prevail, how citizens' values differ from the values of policy-makers, and in which aspects current policy could better acknowledge citizens' aspirations. Some practical recommendations are drawn in the end.

6.1 FOREST VALUES

In a representative democracy, the process to acknowledge citizens' opinions and values in policy-making at the general level is done through parliamentary elections. However, some issues—for example, forest issues in Finland—are generally not discussed in parliamentary elections. In this case, the comparison of values of citizens, MPs and forest professionals can serve as baseline information for public discussion and policy-making.

Most Finnish citizens believe that MPs should act according to what is best for citizens and, at the same time, that they should investigate constituents' views and present their case in politics (Bengtsson & Wass, 2009). However, citizens select candidates who are congruent with their traits and values (Caprara & Zimbardo, 2004), thus, it can be assumed that MPs' values will consistently guide their behaviour in decision-making regardless of context.

This dissertation research shows that citizens' forest values are not reflected in the Parliament in terms of their relative importance in the broader population. For citizens, conservation values were remarkably more important than economic values, while these two values were almost just as important to MPs and forest professionals emphasized more economic as compared to conservation values (Figure 12). Citizens' prioritization of nature conservation and the maintenance of

biodiversity can also be seen in the results of public hearings for the creation of the Forest policy report 2050, where participants (even if we do not know much of their representativeness of population) valued nature conservation issues over other goals (otakantaa.fi, 2013).

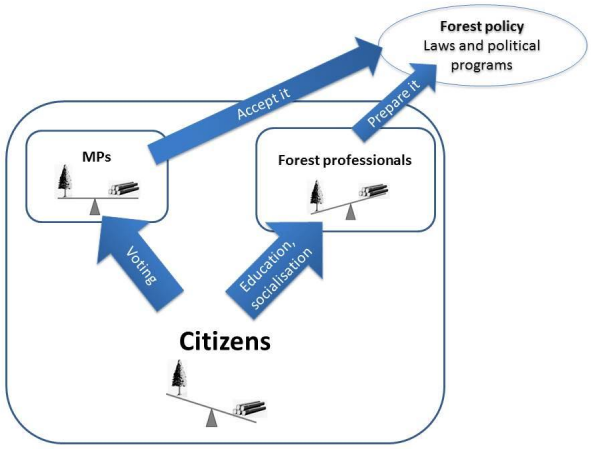

Figure 12 *Emphasis of nature conservation (tree in figure) and economic (logs) value for citizens, MPs and forest professionals.*

In fact, Raitio and Harkki (2014) concluded after studying Parliaments' role in the governance of public forests that Parliament's central role is dependent on how and who prepares the decisions. Further, they noticed that business economic goals were dominant in decision-making processes over other societal goals.

What should we think about the remarkable deviance in forest values between citizens, MPs and professionals? According to Aristotle's view on dialectic, it is not about finding a solution for conflicting themes, but rather finding the reality behind things. To increase the possibility of finding a resolution to conflict, Gritten et al. state that the values and principles of conflicting parties should be investigated to provide a better understanding of the conflict. This dissertation has done just this.

The results suggest that the values held by the majority of citizens deviate from mainstream forest political discourse, which emphasizes the economic relevance of forests (Rantala & Primmer, 2003; Raitio & Harkki 2014). It might be that the requirements for expertise in the field lead to the exclusion of lay people from governance processes and respective discourses (Steffek, 2009). Citizens valuing conservation and recreation might even think that their opinions deviate from the majority, since they are probably familiar with mainstream discourse where the economic utilization of forests is accentuated.

6.2 FAIRNESS AND SPEED OF DECISION-MAKING

Fairness in society facilitates cooperation and enables social coordination. In the context of this study where there were conflicting values, fairness came up as most important predecessor of legitimacy. However, the fairness of political decision-making was evaluated rather negatively; in particular, the treatment of different points of view was considered to be unfair. The shared understanding of justice rules helps us manage conflicts and, if authorities are perceived to have fair procedures, they can function more effectively. (Tyler, 2012) Fairness can, thus, be seen as a key challenge in forest-related decision-making in Finland.

To better understand what those concerned in the decision-making processes are expecting, as many as possible of the criteria in fairness evaluations should be made clear. In addition to the known justice rules (Leventhal, 1980; Bies & Moag, 1986; Colquit, 2001), I suggest speed of decision-making as a new justice principle. This notion drew on the uncertainty management model (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002), which claims that fairness matters to people because it reduces life-related uncertainties or makes unavoidable uncertainties more tolerable. Based on this, I suggest that procedures that efficiently reduce uncertainty will be seen as fair; further, I argue that the speed of decision-making could be one criterion that people use when evaluating the fairness of the overall decision-making process.

Very fast and very slow decision-making processes include more uncertainty than moderate processes. Although fast processes reduce short-term uncertainty (i.e., time under uncertainty), they may create concerns about the quality of the decision-making process (i.e., long-term uncertainty). Non-linear relationship of the speed of decision-making on fairness was verified: a moderate processing time was related to more positive fairness perceptions than very slow or very fast processes. Further, perceived procedural fairness fully mediated the effect of speed on legitimacy. As such, the results suggest that the speed of the process is important to people because it affects the perceived procedural fairness of decision-making.

The uncertainty management model and its predecessor, fairness heuristic theory (e.g., Lind, 2001), offer reasonable cognitive-level explanations for how the speed of decision-making influences perceived procedural fairness and legitimacy. The speed of decision-making offers a readily available cognitive shortcut for fairness judgments. In many situations, speed-related information is more evident than various other fairness criteria.

The speed of decision-making processes may be an important criterion in fairness evaluation also because, in many cases, the consequences of the decision are dependent on the processing time. Retrospective evaluation or contrafactual thinking (see e.g., Folger & Cropanzano, 1998) may make some conclude that their situation would be different if the authorities had made the decision earlier.

The challenge in balancing time and fairness seems to be rather notable in decision-making. Recently, the preparation process of the new Forest Act raised a debate in Finnish media around procedural fairness. The main critique of the rather quick process was that it omits one viewpoint, specifically, the maintenance of

biodiversity (Metsälain muutosehdotuksen..., 2012), which is the goal that Finns consider as most important in forest policy (Valkeapää, et. al., 2009). It remains to be seen, however, if this has an effect on the perceived legitimacy of the law in the long run.

6.3 LEGITIMACY

Information about the public's perceptions of legitimacy is useful for policymakers to help them understand problematic topics as well as reduce friction and conflicts in the political arena. The results of this study can be used as a basis for reformulating and implementing legitimate future forest policy in order to achieve its primary goal: to serve all citizens.

Perceived legitimacy was predicted by the acceptance of laws, the justice of procedures, the fairness of power relations, and the acceptance of outcomes when controlled for by personal traits. The results suggest that the third level of Norris' (2011) model of political support, that is, the evaluation of the overall performance (procedures and outcomes), plays a significant role in explaining perceived legitimacy in this context. Procedural justice and the acceptance of forestry operations were the strongest predictors of perceived legitimacy, but acceptance of laws did not have a significant effect on it (Figure 13). The results are in line with Rantala's (2011) analysis of readers' letters to journals on forest issues. That study found that there is not much contention surrounding the principles of decision-making, but there are significant disagreements concerning the performance of the decision-making processes.

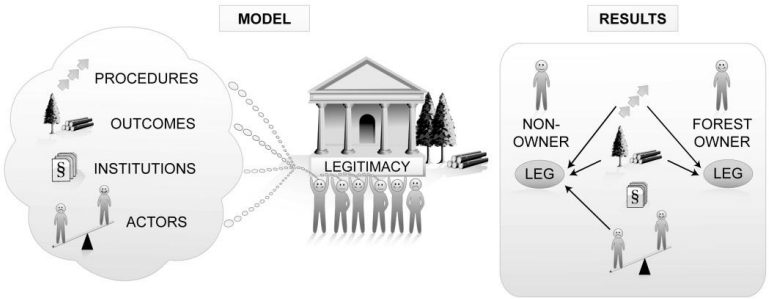

Figure 13 *Model and results of predictors of perceived legitimacy for non-owners and forest owners.*

Since the overall legitimacy was perceived positively, it suggests that forest policy has at least diffuse (or general) legitimacy. Other predictors were also evaluated positively, except the procedural justice was perceived negatively. Since it is the main antecedent of legitimacy, it may communicate problems with regard specific legitimacy; in other words, the legitimacy might not have a strong basis.

Especially people think that various viewpoints are not considered equally in decision-making.

Because legitimacy is socially constructed, dependent on collective audience, and reflects shared or assumedly shared beliefs of certain group, it is possible that the object of legitimation deviates from the individual's values while still maintaining legitimacy if the deviation does not draw public disapproval (Suchman, 1995). Thus, diffuse legitimacy might be enough to maintain social stability, if the matter is not interesting to a broad audience. However, there is a danger for democratic ideals if this approach would be adopted by some political field: "if an organization simply wants a particular audience to leave it alone, the threshold for legitimacy might be quite low" (Suchman, 1995, p. 575).

Actually, citizens' trust in institutions has been decreasing over the last decades (Lorenzoni & Pidgeon, 2006; Dalton, 2004). Dissatisfaction with official environmental policies has already led to attempts to influence the status quo of power positions in policy-making in alternative ways, for example, by taking direct actions to stop logging, and campaigning to influence potential buyers of forest products.

Further, the results of this dissertation suggest that the perceived legitimacy of a policy rests partly on citizens' lack of competence in the issue at hand. Competence was related negatively to legitimacy. In fact, the awareness of forest conservation issues was more closely associated with interest in decision-making than with an awareness of forestry issues, and people with forestry knowledge were more satisfied with forest policy than people with conservation knowledge. This is an understandable result also in light of the findings of the effect of values on system satisfaction (i.e., that the conservation value was negatively, and economic value was positively, associated with system satisfaction). Therefore, if the values that one emphasizes are already in line with the current decisions being made in policies, there is not much need to influence the process.

Moreover, the findings showed that wealthy citizens were more satisfied with the policy than poorer ones. For forest owners, this was reflected in the size of the forest estate and, for non-owners, in household incomes. This is an interesting finding considering that the recreation value was least important for MPs while it was the second most important for citizens. This goal might be brushed aside in policy-making, when the strongest voices are used to promote the economic value of forests and nature conservation (Rantala & Primmer, 2003). However, the benefits of recreation might have notable relevance in decision-making since there are research evidence that forests positively contribute to human health (Park et al., 2009; Korpela et al., 2010; Karjalainen, Sarjala & Raitio, 2010, Hanski et al., 2012) and decrease income-based health differences (Mitchell & Popham, 2008). This is especially significant when diminishing differences among the population, in terms of well-being and health, is written into the current Government's platform.

6.4 REFLECTIONS FROM SYSTEM JUSTIFICATION

Although some focal aspects of forest policy were severely criticized in the data, legitimacy in general was evaluated positively. Following system justification theory (SJT) (Jost & Banaji, 1994), "people are motivated to preserve the belief that existing social arrangements are fair, legitimate, justifiable and necessary" (Jost et al., 2003; Toorn & Jost, 2014), the conception of an effectively working forest policy is a belief that makes the policy as a whole look acceptable, even though there might be complaints about specific, even fundamental, aspects of the policy.

Furthermore, the theory suggests that belief in a legitimate policy shelters people from seeing the policy's defects, especially if the chances to affect it are limited (Jost et al., 2003, Jost, Banaji, & Nosek, 2004). In this light, it is understandable that competence was negatively associated with the legitimacy perception; the more people knew about forest policy, the less legitimate they considered it to be. Also the desire to influence was positively correlated with competence. When people had competence in forest-related issues, they tended to take either a positive or a negative view of forest policy. But when a person does not feel competent in the area, in line with SJT, he or she will have a tendency to be satisfied or neutral towards the system. Consequently, dissatisfaction with the system is likely only when people are aware of issues and, as such, those people whose competence is low are not likely to question the system.

The tendency towards system justification might be further understood based on historical grounds. Finnish forestry is considered a strong national success story (see e.g., Reunala et al. 1999, p. 9) as reflected in slogans such as "Finland lives off the forest", "Finland is a land of a green gold" and "Finland stands on its wooden legs". These sayings appear, for instance, in school books and can serve as 'legitimizing myths' (see e.g., Tyler, 2006). In the case, when an individual is dissatisfied with some manifestation of the policy and participating in decision-making seems burdensome, basing one's reasoning on these slogans may push a person to be satisfied with the existing system.

6.5 STATUS QUO OR SOCIAL CHANGE

For a social system to work well, there should be some sort of equilibrium between social stability and social change. Too radical or frequent changes hamper continuity while sticking to old modus operandi prevents progress.

Reicher and Haslam (2013) brought forward the idea that maintaining the status quo does not just happen, but rather it is actively (re)produced. They propose problematising the production and reproduction of "normality" and identifying the work that must be done to keep things the same. One example of this kind of effort on the production of "normality" in this context could be the state subsidies provided for silvicultural and forest improvement work. These subsidies are based on the traditional perspective of forests as a stock of raw material. The sense of these subsidies has been questioned on economic grounds (Tahvonen, 2013) but in the

current situation, where the use of wood is lower than the growth of forests, such subsidies are even less justified (Hyyrynen, 2013, p. 97).

Further, the participatory approaches reproduce the traditional power positions in the decision-making system. According to this dissertation research, citizens, including forest owners, considered forestry administration—and even more the forest industry—to be too powerful in forest policy decision-making. Forest industry's power position is still rather strong, although its relevance to the national economy has decreased substantially (Donnel-Amnell & Rytteri, 2010). That is because forest-related decisions are traditionally made in committees and working groups, in close collaboration with interest groups. Therefore, Finnish forest policy has been described as corporatist (Hetemäki et al., 2011). Thus, it is understandable that economic values are more reflected indecision-making processes as compared to conservation and recreation values (see also Raitio & Harkki, 2014).

Another issue in maintaining the status quo arises from the fact that taking part in the policy-making process demands a lot of competence and resources—at least in terms of time (Mascarenhas & Scarce, 2004; Clement & Cheng, 2011). As Giessen, Kleinsmith, and Böcher (2009) state, "strong actors possess the justificatory power of knowledge claims and resources, while others do not" (p. 453). Financial resources may also assist in getting stakeholders' voices to the decision-making table. While the wealthiest stakeholder groups employ professionals for these processes, the less wealthy work on a voluntary basis. This suggests that economic interests have better possibilities to affect decision-making.

According to system justification theory, preserving the status quo is appealing to many citizens, allowing them to maintain what is familiar and rejecting the uncertain prospect of social change (Jost & Hunyady, 2005). While this is psychologically beneficial since it helps people to cope with reality, it is costly at the societal level, as it undermines the motivation for progress and social change (Wakslak, Jost, Tyler, & Chen, 2007).

Traditionally, forest policy has concentrated on maximizing the production of wood for industrial purposes, which is thought to benefit the society at large (Seppälä, 2011). Since the majority of stakeholders in political processes represent the forestry position with economic emphasis (see, e.g., Finland's national. . . 2008 p.45, forest council), the environmental position tends to be the outgroup in defining the forest policy. In such cases, where the established dominant group's values are challenged by a minority group's values, the minority group might be considered as threat to social order (Staerklé, 2009). In many cases, the majority group has shown to have a tendency for differentiating the minority. Actually, intergroup differences in values are many times exaggerated to rationalize prejudiced intergroup attitudes and justify discrimination (Kristiansen & Zanna, 1994). This serves the function of maintaining the status quo as well as the majority group's position of power (Staerklé, 2009).

Even though conflicts seem detrimental to decision-makers, conflict can serve vital democratic functions. Without conflicts, progress rarely occurs. In the long run, society will benefit from people who protest the status quo (Jost, et al. 2011). Ideological diversity in problem-solving groups produces more elaborated and

creative solutions, which may lead to more innovative public policies compared to solutions proposed by homogeneous groups. Ideological competition also increases civic participation and enhances the information flow from political elites to ordinary citizens (Krochik & Jost, 2011). The underlying requirement, however, for the achieving the benefits of ideological differences is that all parties are treated respectfully. According to Appelstrand (2002), the most fundamental precondition for successful participation is the sincere desire among decision-makers to pay attention to the opinions of all stakeholders. This is the main challenge for Finnish forest policy (Primmer & Kyllönen, 2006).

6.6 FOREST POLITICAL IMPLICATIONS

According to the results of this dissertation research, procedural fairness is essential for the legitimacy of decision-making in a field of policy marked by conflicting values. While the use of fair procedures can be time-consuming, such procedures nevertheless can also speed up decision-making, for example, by reducing delays caused by appeals from parties dissatisfied with decisions. In other words, fair procedures *per se* can speed up the overall process and decision-makers should only speed up processes when they first take care of all justice principles. When the decision-making process is prolonged, decision-makers should keep people informed about the delay and its reasons. This may reduce the negative effect of the slow process in fairness perceptions and highlight the positive sides of the process, such as openness and transparency.

Forest owners saw forest policy as more legitimate, with regard to their satisfaction and how appropriate they considered forest policy to be. For non-owners, as opposed to forest owners, the acceptance of power relations predicted legitimacy. Forest owners considered the power relations between various stakeholders to be somewhat more acceptable than other citizens did. The findings suggest that forest owners are well represented in forest policy formulation and non-owners perceive a power deficit in the decision-making about forest environments.

The acceptance of forestry operations strongly explained legitimacy in both groups. Forest owners accepted methods aimed at intensifying wood production, such as clearcutting, forest road construction, and the ditching of peatlands, more often than other citizens. However, regulations aimed at even-aged forest management were evaluated negatively by both groups, as was the case with clearcutting as a forestry practice, towards which majority of forest owners were critical. Notably, clearcuttings stood out in open-ended question “What would you like forest-related decision-making to pay attention to?” as the most central theme (Hytönen, 2013). These findings communicate explicit disagreement with fundamental forestry operations, and are in line with Karppinen's (2005) results that forest owners had a favorable attitude towards natural reforestation, even if this was not reflected in their own forestry practices. On the other hand, Everyman's

Rights, which are widespread in the Nordic countries, had strong support from all citizens, including forest owners.

However, forest owners respect forest-related rules and regulations less than ordinary citizens in cases where they did not see a point to them. This likely could be explained in two ways. Firstly, there might be different conceptualizations between the two respondent groups when thinking about forest regulations. Forest owners may be more conscious of regulations that restrict their use of property. For non-owners, Everyman's Right may be more salient. Secondly, if the consideration of regulations by both groups would be in terms of forest use restrictions, there is an obvious difference if the restriction focuses on themselves or someone else.

One challenge in the sector is the emphasis of the professional view and sticking to old goals (see also Hetemäki, 2011). This might convey in communication and image-building campaigns (e.g., metsapuhuu.fi) that there is need for people to follow the values of and professional view of the sector. When values in power and traditions are emphasized (see also Paaskoski, 2008), such a campaign may not appeal to young people, who typically emphasize the opposite values of self-direction and universalism. This should be acknowledged in the light of recent dissertation by Sortheix (2014), who found that for younger generations, intrinsically rewarding career values, e.g., interesting work and learning new things, are positively related to work engagement while a good salary is unrelated (Sortheix, et al. 2013). Further, the universalism value was related to higher well-being in wealthy countries, such as Finland, and value congruence (i.e., when a person's values are similar to the organisations values) enhance the well-being at work (Sortheix, 2014).

Welcoming new ideas could create an inspiring context and increase the appeal of the sector to young people with high potential, who are keen to find new solutions from fresh perspectives. To address this issue of values and young generations' perspective, forest policy should open to various benefits provided by forests. For example, the well-being benefits (emphasized also in public hearings, see otakantaa.fi, 2013) could be made explicit in future forest policy (see review of the these benefits in Karjalainen et al., 2010). Further, if forest professionalism would in definition be more broad and include also biodiversity and recreational concerns in addition to economic issues, the interest of younger generations may be raised towards this multifaceted field.

The recent increase in participatory approaches in policy-making processes concerns those, who have sufficient interest and competencies to express their views through the existing modes of participation available. Even though most respondents were interested in forest-related decision-making and they could easily take a position, most citizens, presumably, do not know when these policy processes are going on nor how to make their views known during the processes. There is a danger that the 'silent majority's' voice is not heard in policy-making process. Keeping in mind the purpose of forest policy—to enhance the sustainable production of the benefits of forests to serve the needs of all citizens—citizens' views play a key role. Social surveys are an efficient way to generate information from a representative sample of the larger public, who may have an interest in forests but

not necessarily attend participatory events or public hearings (Clement & Cheng, 2011). Although the information can be made available, the question raised by Mascarenhas and Scarce (2004) remains: "who represents citizens' views in stakeholder dominant processes?"

A democratic society is marked by different methods of public participation: open decision-making, access to information and flexibility to citizens demands (Appelstrand, 2002). An applied social psychological approach provides tools for managing environmental conflicts, for example, by framing the advantages and disadvantages related to possible solutions, and creating common identities between conflicting parties and, thus, reducing the potential for conflicts (Müller, 2011). Armed with the findings of this dissertation, policymakers could more explicitly identify and address forest values in decision-making. Further, based on the results, it would be useful to open public discussion of future directions and goals of forest policy.

6.7 LIMITATIONS AND FUTURE DIRECTIONS

This dissertation research is based on survey methodology. The advantage of the method is that results can be generalized to certain population, in this case to Finnish citizens. There are also several limitations within the method. The most notable is that we do not know how respondents have understood a particular statement or what their motivations and justifications are for answering in a specific way; nor do we know how well-grounded the response truly is. It is worth stating that people's views on political institutions are not an objective evaluation of the institutions, but rather impressions, which are influenced, among other things, by public debate and private discussions, as well as one's personal way of seeing the world. Nevertheless, surveys are, according to current knowledge, the most justified method to access citizens' viewpoints.

Further, it should be acknowledged that causal relationships of the concepts cannot be proved through cross-sectional studies like those that make up this dissertation. The relationships of the concepts are the core interest here and the causality-like nature of the associations is based on theoretical grounds. Further, it is good to keep in mind that there may be some general feature at play, for example, in the legitimacy and fairness measures, so that the strong link between them might be partly explained by a third factor. However, the most likely factor, the general tendency to trust others, was taken into account as a control variable in the analysis.

It is likely that competent people in citizens sample is over-represented when compared to the general population, since the response rate was 42 per cent and the non-response study showed that the main reasons for not responding were lack of time and low interest in the subject (Valkeapää et al., 2009). However, it could be that many respondents are not very well aware of forest political decision-making. It may then be asked what these responses actually reflect; for instance, it is possible

that part of the evaluations attributed to forest policy specifically might actually reflect a more general evaluation of policy-making.

In studying values, one data sample—namely, the forest professional data—was from year 2002. This weakens the comparability of forest professionals to other citizens and MPs. However, since values are rather stable by definition (Schwartz, 2012; Helkama & Seppälä, 2006), this does not pose an insurmountable obstacle to drawing the conclusions from the findings.

In terms of the speed of decision-making as one justice criterion, this study offers a preliminary look at the time perspective. These cognitive-level processes that explain why (i.e., uncertainty) and how (e.g., substitutability effect and retrospective thinking) the speed of the decision-making process impacts perceptions of fairness were theoretically driven and not directly measured in this study. In this respect, the contribution to the literature remains limited and a proper examination of the suggested ideas is left for future studies. Controlled experimental studies could be used to examine the theorized cognitive processes in relation to decision-making speed. More research is needed to determine how processing time should be measured so that it can be integrated into measures of procedural justice. In such future studies, it would be good to present other kinds of operationalizations of the speed of the decision-making process and also analyse interactions with other justice principles. One possibility would be to measure actual time with a continuous time scale. At the same time, the importance of the decision should be controlled as the meaning of speed may depend on the importance of the decision to those concerned: more important decisions are related to higher levels of anxiety.

Considering possible additions to the uncertainty management model opens possibilities for a broader discussion than presented in the current study about factors that affect experienced uncertainty and fairness perceptions. Other factors could be identified that may have an influence on the perceived uncertainty of the decision-making process, as well as on perceived procedural fairness. For example, practices such as keeping people updated on the status of the process—and giving information about which options are to be considered—could easily be seen to reduce uncertainty. More research is needed to study how these suggested factors affect experienced uncertainty and perceptions of fairness.

Since legitimacy is not a stable concept by definition, it would be interesting to see how the legitimacy of forest policy in Finland changes over time. Another worthwhile venture would be to study how it compares to other political sectors. Actually, the model presented in this dissertation could be applied in comparing the similarities and differences across political sectors. Further, the social identity approach suggested by Reicher and Haslam (2013) in the evaluation of values and legitimacy could be very informative in this context. Such an approach follows Schwartz's (2011) suggestion nicely, specifically, that future value research should pay attention to cultural variation between groups within countries.

7 CONCLUSIONS

In the context of Finnish forest and nature conservation policy where values are highly polarized, procedural justice stands out as the most important criterion in evaluating legitimacy of policy. With regard to forest values, conservation value was remarkably more important than economic value for citizens, while these two values were almost just as important to MPs, and forest professionals emphasized more economic as compared to conservation value. Citizens' preferences for nature conservation and recreation seem to be brushed aside in decision-making processes, where economic aspects are emphasized.

Citizens pay particular attention to the fairness of treatment and did not believe that all viewpoints are treated equally. Further, the speed of decision-making was suggested as a new principle that people use when evaluating the justice of procedures. Very fast and very slow decision-making processes include more uncertainty than moderate processes.

Forest policy in general has, at least, diffuse legitimacy. The object of legitimization might deviate from individuals' values, yet may still be deemed legitimate if this deviation does not draw public disapproval. In this sense, we can consider that an individual's assessment of the legitimacy of a particular policy may involve not only one's personal viewpoint but the perceived normative response.

Further, the more equal consideration of various groups' viewpoints would help build trust in the sector. Ensuring that procedures are inherently fair and that different viewpoints are acknowledged likely leads to more effective political processes, thereby, eventually also enhancing the support of the political system.

Finally, based on the findings of this dissertation research, a more legitimate forest policy may be achieved by: 1) paying more attention to the justice of decision-making procedures, especially in the equal treatment of all stakeholders and consideration of citizens' views; 2) addressing citizens' views explicitly in policy-making; and 3) widening the perspective on the benefits of forests, such as health and recreational ones, and truly open possibilities for new ideas and welcome the representatives of all the possible stakeholders of forests in the policy-making.

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APPENDIX

HELSINGIN YLIOPISTO

Suomen metsät

Mitä Sinä haluat metsiltä?

1. Mitä metsä Sinulle henkilökohtaisesti merkitsee?

2. Miten tärkeitä Sinulle ovat seuraavat metsään liittyvät asiat?
Ympyröi parhaiten näkemystäsi kuvaavan vaihtoehdon numero.

		erittäin tärkeä	melko tärkeä	jonkin verran merkitystä	vähän merkitystä	ei merkitystä
1	Luonnon tarkkailu	5	4	3	2	1
2	Maisemien ihailu	5	4	3	2	1
3	Marjastus, sienestys	5	4	3	2	1
4	Metsästys	5	4	3	2	1
5	Tulonlähde (suora tai välillinen)	5	4	3	2	1
6	Eläin- ja kasvilajien elinympäristö	5	4	3	2	1
7	Pyhä paikka	5	4	3	2	1
8	Asuinympäristö	5	4	3	2	1
9	Vapaa-ajan harrastuspaikka	5	4	3	2	1
10	Rauhoittava paikka	5	4	3	2	1
11	Ulkoilu, liikunta	5	4	3	2	1

3. Kuinka usein käyt metsässä?

1 Päivittäin
2 Useita kertoja viikossa
3 Kerran viikossa
4 Useita kertoja kuukaudessa
5 Kerran kuukaudessa
6 Harvemmin
7 En koskaan

4. Kuinka usein keskustelet metsiin liittyvistä asioista ja ajankohtaisista tapahtumista?
(juttelua ystävien, työkavereiden tai vieraiden ihmisten kanssa kasvokkain, puhelimessa tai sähköpostitse)

1 Päivittäin
2 Useita kertoja viikossa
3 Kerran viikossa
4 Useita kertoja kuukaudessa
5 Kerran kuukaudessa
6 Harvemmin
7 En koskaan

5. Seuraavassa luetellaan eri tavoin metsien kanssa tekemisissä olevia ryhmiä. Miten läheisiksi tai etäisiksi ne koet itsellesi?

		hyvin läheinen	melko läheinen	neutraali	melko etäinen	hyvin etäinen
1	Luonnossa liikkujat	5	4	3	2	1
2	Marjanpoimijat, sienestäjät	5	4	3	2	1
3	Metsästäjät	5	4	3	2	1
4	Luonnonsuojelijat	5	4	3	2	1
5	Luonnon harrastajat	5	4	3	2	1
6	Metsänomistajat	5	4	3	2	1
7	Kaupunkilaiset	5	4	3	2	1
8	Maaseudun asukkaat	5	4	3	2	1
9	Ympäristöammattilaiset	5	4	3	2	1
10	Metsäammattilaiset	5	4	3	2	1
11	Metsäteollisuuden työntekijät	5	4	3	2	1

6. Mihin Sinä haluaisit kiinnittää huomiota metsien käyttöä koskevassa päätöksenteossa?

- Metsät peittävät Suomen maapinta-alasta 87 %.
- Lähes kaikki suomalaiset (97 %) **ulkoilevat** metsäluonnossa vuoden aikana.
- Metsistä 52 % on yksityisten henkilöiden **omistuksessa**, 35 % omistaa valtio ja loput 13 % on metsäteollisuuden, kuntien ja seurakuntien hallussa. Valtion metsät sijaitsevat pääosin Pohjois-Suomessa.
- Suomen metsämaasta noin 95 % on **talouskäytössä** eli tuottamassa puuta.
- Metsäteollisuustuotteiden **vienti** on noin 20 % kokonaisviennin arvosta. Metsäteollisuuden kotimaisesta raaka-aineesta noin 70 % tulee yksityisten omistamista metsistä.
- Metsätalous ja metsäteollisuus **työllistävät** noin 3,7 % työvoimasta.
- Metsien talouskäytön ja käsittelyn aiheuttamat **muutokset luonnossa** ovat johtaneet useiden eläin- ja kasvilajien uhanalaistumiseen.
- Suomen metsämaasta on **suojeltu** 5,1 %, lisäksi rajoitetussa metsätalouskäytössä on 2,7 %. Suojeltujen metsien osuus metsämaasta on Etelä-Suomessa 1,8 % ja Pohjois-Suomessa 9,1 %.
- Pohjois-Suomessa suhteellisen **luonnontilaista** metsää on myös luonnonsuojelualueiden ulkopuolella, Etelä-Suomessa tällaisia metsiä on kaikkiaan vähän.
- Talouskäytössä olleita metsiä voidaan **ennallistaa** luonnontilaisemman kaltaiseksi, mm. tukkimalla metsäojia, polttamalla metsää ja lisäämällä lahopuun määrää.

7. Metsiä koskevassa päätöksenteossa pyritään ottamaan huomioon monenlaisia näkökulmia. Miten tärkeinä Sinä pidät seuraavia asioita?

*Valitse seuraavasta listasta ensin 1–3 tärkeintä kohtaa ja merkitse ne arvolla **5**. Valitse sitten 1–3 vähiten tärkeää kohtaa ja merkitse ne arvolla **1**. Merkitse lopuille asioille sen jälkeen arvoja 2–4.*

		erittäin tärkeä	melko tärkeä	jonkin verran merkitystä	vähän merkitystä	ei merkitystä
1	Etelä-Suomen metsien suojelu	5	4	3	2	1
2	Luonnon monimuotoisuuden säilyttäminen	5	4	3	2	1
3	Maaseudun elinvoimaisuuden tukeminen	5	4	3	2	1
4	Maisema-arvot	5	4	3	2	1
5	Matkailun edellytykset	5	4	3	2	1
6	Metsätalouden kannattavuus	5	4	3	2	1
7	Metsien kulttuurinen merkitys	5	4	3	2	1
8	Metsäteollisuuden edellytykset	5	4	3	2	1
9	Pohjois-Suomen metsien suojelu	5	4	3	2	1
10	Puun energiakäytön lisääminen	5	4	3	2	1
11	Puuntuotannon lisääminen	5	4	3	2	1
12	Työpaikkojen säilyttäminen	5	4	3	2	1
13	Valtion tulot	5	4	3	2	1
14	Virkistyskäytön edellytykset	5	4	3	2	1
15	Yksityismetsänomistajien tulot	5	4	3	2	1
16	Muu, mikä? _____	5	4	3	2	1

8. Miten paljon tai vähän seuraaviin seikkoihin mielestäsi kiinnitetään huomiota julkisessa metsiä koskevassa päätöksenteossa?

		aivan liian paljon	hieman liian paljon	sopivasti	hieman liian vähän	aivan liian vähän	en osaa sanoa
1	Etelä-Suomen metsien suojelu	5	4	3	2	1	☐
2	Luonnon monimuotoisuuden säilyttäminen	5	4	3	2	1	☐
3	Maaseudun elinvoimaisuuden tukeminen	5	4	3	2	1	☐
4	Maisema-arvot	5	4	3	2	1	☐
5	Matkailun edellytykset	5	4	3	2	1	☐
6	Metsätalouden kannattavuus	5	4	3	2	1	☐
7	Metsien kulttuurinen merkitys	5	4	3	2	1	☐
8	Metsäteollisuuden edellytykset	5	4	3	2	1	☐
9	Pohjois-Suomen metsien suojelu	5	4	3	2	1	☐
10	Puun energiakäytön lisääminen	5	4	3	2	1	☐
11	Puuntuotannon lisääminen	5	4	3	2	1	☐
12	Työpaikkojen säilyttäminen	5	4	3	2	1	☐
13	Valtion tulot	5	4	3	2	1	☐
14	Virkistyskäytön edellytykset	5	4	3	2	1	☐
15	Yksityismetsänomistajien tulot	5	4	3	2	1	☐
16	Muu, mikä? _____	5	4	3	2	1	

Voit halutessasi täydentää näkemyksiäsi omin sanoin.

9. Onko seuraavilla tahoilla mielestäsi liikaa, sopivasti vai liian vähän <u>valtaa</u> metsiin liittyvässä päätöksenteossa?

		aivan liian paljon	hieman liian paljon	sopivasti	hieman liian vähän	aivan liian vähän	en osaa sanoa
1	Ammattijärjestöt	5	4	3	2	1	☐
2	Kansanedustajat	5	4	3	2	1	☐
3	Luontomatkailuyrittäjät	5	4	3	2	1	☐
4	Metsänomistajat	5	4	3	2	1	☐
5	Metsäteollisuus	5	4	3	2	1	☐
6	Metsäviranomaiset	5	4	3	2	1	☐
7	Tavalliset kansalaiset	5	4	3	2	1	☐
8	Tutkijat	5	4	3	2	1	☐
9	Virkistyskäyttäjät	5	4	3	2	1	☐
10	Ympäristöjärjestöt	5	4	3	2	1	☐
11	Ympäristöviranomaiset	5	4	3	2	1	☐
12	Jotkut muut, ketkä? _____	5	4	3	2	1	

- Suomessa eduskunta ja hallitus päättävät laeista ja asetuksista. Näillä ohjataan kansalaisten toimintaa sekä sitä, miten kukin suomalainen voi vaikuttaa julkiseen päätöksentekoon.
- Suomessa kaikilla 18 vuotta täyttäneillä kansalaisilla on vaaleissa tasapuolinen mahdollisuus vaikuttaa siihen, ketkä ovat päättämässä yhteisistä asioista. Äänestämisen ohella suomalaiset voivat ottaa yhteyttä poliitikkoihin ja osallistua erilaisten järjestöjen toimintaan sekä pyrkiä vaikuttamaan muiden mielipiteisiin.
- Maa- ja metsätalousministeriö sekä ympäristöministeriö **hallinnoivat** metsien käyttöä. Metsähallitus hoitaa **valtion metsäomaisuutta**, talousmetsiä, kansallispuistoja ja virkistysalueita.
- Metsien käytön tavoitteet määritellään laeissa, joita täydentävät metsä- ja luonnonsuojeluohjelmat. Myös metsien hoitoa ja puunkorjuuta **ohjataan** metsiä koskevalla lainsäädännöllä sekä julkisella tuella ja neuvonnalla.

10. Hyväksytkö seuraavat säädökset?

		hyväksyn täysin	hyväksyn enimmäkseen	osin hyväksyn, osin en	en oikein hyväksy	en hyväksy ollenkaan	en osaa sanoa
1	Metsälaki säätää, minkä ikäisen metsän voi aikaisintaan hakata.	5	4	3	2	1	☐
2	Metsälaki velvoittaa huolehtimaan uuden taimikon syntymisestä metsän hakkuun jälkeen.	5	4	3	2	1	☐
3	Luonnonsuojelulaki rajoittaa liito-oravan asuttaman metsän hakkuita.	5	4	3	2	1	☐
4	Jokamiehen oikeus sallii marjastuksen kaikissa metsissä.	5	4	3	2	1	☐
5	Metsälaki määrää pääsääntöisesti, että metsikön puut pitää kasvattaa saman ikäisinä.	5	4	3	2	1	☐
6	Metsälaki rajoittaa hakkuita luonnon monimuotoisuuden vuoksi.	5	4	3	2	1	☐
7	Metsälaki rajoittaa metsänomistajan päätöksentekoa.	5	4	3	2	1	☐

Voit halutessasi täydentää näkemyksiäsi omin sanoin.

11. Hyväksytkö seuraavat toimenpiteet?

		hyväksyn täysin	hyväksyn enimmäkseen	osin hyväksyn, osin en	en oikein hyväksy	en hyväksy ollenkaan	en osaa sanoa
1	Metsäteiden rakentaminen puunkorjuuta varten	5	4	3	2	1	☐
2	Metsien lannoitus	5	4	3	2	1	☐
3	Metsien ojitus	5	4	3	2	1	☐
4	Avohakkuut (hakkuu, jossa lähes kaikki puut poistetaan)	5	4	3	2	1	☐
5	Ennallistaminen (muutetaan puuntuotannossa ollutta metsää luonnontilaisemmaksi)	5	4	3	2	1	☐

12. Hyväksytkö seuraavat toimintatavat?

		hyväksyn täysin	hyväksyn enimmäkseen	osin hyväksyn, osin en	en oikein hyväksy	en hyväksy ollenkaan	en osaa sanoa
1	Yhteydenotto päättäjiin tai virkamiehiin esim. puhelimitse tai sähköpostilla	5	4	3	2	1	☐
2	Yleisön mielipiteeseen vaikuttaminen julkisuuden kautta	5	4	3	2	1	☐
3	Kampanjoiminen tuotteiden boikotoimiseksi	5	4	3	2	1	☐
4	Mielenosoitukset ristiriitojen esiin nostamiseksi	5	4	3	2	1	☐
5	Hakkuiden estäminen hakkuutyömaalla luontokohteen säilyttämiseksi	5	4	3	2	1	☐

13. Miten suhtaudut seuraaviin väitteisiin?

		täysin samaa mieltä	osin samaa mieltä	ei samaa eikä eri mieltä	osin eri mieltä	täysin eri mieltä	en osaa sanoa
1	Olen tyytyväinen siihen, miten metsäasiat hoidetaan Suomessa.	5	4	3	2	1	☐
2	Metsiin liittyviä lakeja ja säädöksiä pitää noudattaa, vaikka ne eivät tuntuisi minusta järkeviltä.	5	4	3	2	1	☐
3	Valtion ei pitäisi puuttua metsien käyttöön, vaan säätely tulisi jättää markkinoiden hoidettavaksi.	5	4	3	2	1	☐
4	Metsiin liittyvä päätöksenteko on epäselvempää kuin muiden alojen päätöksenteko.	5	4	3	2	1	☐
5	Naisten ja miesten on yhtä helppoa toimia metsäalalla.	5	4	3	2	1	☐
6	Metsien suojelusta huolehditaan Suomessa hyvin.	5	4	3	2	1	☐
7	Metsiä käytetään Suomessa hyvin.	5	4	3	2	1	☐
8	Valtion tulee aktiivisesti ohjata metsien käyttöä, mm. tukien ja verohelpotusten avulla.	5	4	3	2	1	☐
9	Tarvitaan suuri muutos, jotta metsiin liittyvä päätöksenteko saadaan Suomessa järkeväksi.	5	4	3	2	1	☐
10	Euroopan unioni (EU) hoitaa metsiin liittyvän päätöksenteon hyvin.	5	4	3	2	1	☐

Voit halutessasi täydentää näkemyksiäsi omin sanoin.

14. Seuraavat väitteet koskevat metsiin liittyvää päätöksentekoa. Mitä mieltä olet?

Metsiin liittyvä päätöksenteko	täysin samaa mieltä	osin samaa mieltä	ei samaa eikä eri mieltä	osin eri mieltä	täysin eri mieltä	en osaa sanoa
1 Päätöksenteko on reilua.	5	4	3	2	1	☐
2 Asiat sovitaan liian usein ”kabineteissa”.	5	4	3	2	1	☐
3 Kansalaiset voivat vaikuttaa päätöksentekoon.	5	4	3	2	1	☐
4 Kaikilla, joita päätös koskettaa, on mahdollisuus osallistua.	5	4	3	2	1	☐
5 Eri osapuolia kohdellaan tasapuolisesti.	5	4	3	2	1	☐
6 Päätökset pohjautuvat ajanmukaiseen tietoon.	5	4	3	2	1	☐
7 Jotkut ryhmät pääsevät vaikuttamaan liiaksi.	5	4	3	2	1	☐
8 Päättäjät edustavat hyvin eri metsänkäyttäjäryhmiä.	5	4	3	2	1	☐
9 Päätöksenteko noudattaa hyviä tapoja.	5	4	3	2	1	☐
10 Päätöksiin tyytymätön voi valittaa päätöksistä.	5	4	3	2	1	☐
11 Päätökset noudattavat eettisiä periaatteita.	5	4	3	2	1	☐
12 Huonoja päätöksiä voidaan purkaa.	5	4	3	2	1	☐
13 Kaikki osapuolet pääsevät vaikuttamaan samalla tavoin.	5	4	3	2	1	☐
14 Päätöksenteko ei kestä päivänvaloa.	5	4	3	2	1	☐
15 Luotan siihen, että päätökset ovat järkeviä.	5	4	3	2	1	☐
16 Päätöksenteko on avointa.	5	4	3	2	1	☐
17 Päätökset perustellaan hyvin.	5	4	3	2	1	☐
18 Päätöksenteossa noudatetaan hyviä tapoja.	5	4	3	2	1	☐
19 Päätökset tehdään nopeasti.	5	4	3	2	1	☐
20 Ihmisiä kohdellaan tasapuolisesti.	5	4	3	2	1	☐

15. Seuraavat väitteet koskevat nykyisiä metsiin liittyviä lakeja ja säädöksiä. Mitä mieltä olet?

Metsiin liittyvät lait ja säädökset	täysin samaa mieltä	osin samaa mieltä	ei samaa eikä eri mieltä	osin eri mieltä	täysin eri mieltä	en osaa sanoa
1 Palvelevat yhteistä etua.	5	4	3	2	1	☐
2 Varmistavat luonnon monimuotoisuuden säilymisen.	5	4	3	2	1	☐
3 Huolehtivat järkevästä metsien talouskäytöstä.	5	4	3	2	1	☐
4 Varmistavat, että metsienkäytön kaikki näkökulmat tulevat tasapuolisesti huomioiduksi päätöksenteossa.	5	4	3	2	1	☐
5 Palvelevat kansalaisten hyvinvointia.	5	4	3	2	1	☐

Voit halutessasi täydentää näkemyksiäsi omin sanoin.

16. Oletko (tai oletko ollut) mukana seuraavien järjestöjen toiminnassa?

		kyllä, aktiivisesti	kyllä, joskus	en
1	Metsänomistajien etujärjestö, MTK	1	2	3
2	Metsäalan ammatillinen etujärjestö	1	2	3
3	Luonnonsuojelujärjestö	1	2	3
4	Ulkoilu- ja luontoharrastusjärjestö, esim. Suomen latu, partiolaiset, suunnistajat	1	2	3
5	Metsästysseura	1	2	3
6	Muu, mikä? _____	1	2	3

		kyllä	en
1	Oletko (tai oletko ollut) töissä metsäalalla?	1	2
2	Oletko (tai oletko ollut) töissä ympäristö- tai luonnonsuojelualalla?	1	2
3	Oletko joskus kirjoittanut metsäasioista yleisönosastoon?	1	2
4	Seuraatko metsiin liittyvää keskustelua mediassa?	1	2
5	Oletko viimeisen 12 kuukauden aikana osallistunut metsätalouteen liittyvälle kurssille tai muuhun tilaisuuteen?	1	2
6	Oletko viimeisen 12 kuukauden aikana osallistunut luonnonsuojeluun liittyvälle kurssille tai muuhun tilaisuuteen?	1	2
7	Äänestitkö viime eduskuntavaaleissa, maaliskuussa 2007?	1	2
8	Ajattelitko metsäasioita valitessasi omaa eduskuntavaaliehdokastasi?	1	2

Päätöksenteon hyväksyttävyyteen vaikuttavat päätösten sisältö ja kansalaisten kokemat vaikutusmahdollisuudet. Tässäkin tutkimuksessa on tärkeää saada käsitys siitä, millaiseksi koet tämän hetkisen elämäntilanteesi ja vaikutusmahdollisuutesi päätöksenteossa.

17. Mitä mieltä olet seuraavista väitteistä?

		täysin samaa mieltä	osin samaa mieltä	ei samaa eikä eri mieltä	osin eri mieltä	täysin eri mieltä
1	Minun on helppo muodostaa mielipide metsiä koskevissa kysymyksissä.	5	4	3	2	1
2	Olen kiinnostunut metsiin liittyvästä päätöksenteosta.	5	4	3	2	1
3	Haluaisin vaikuttaa metsiin liittyvään päätöksentekoon.	5	4	3	2	1
4	Olen hyvin perillä metsien suojeluun liittyvistä asioista.	5	4	3	2	1
5	Tiedän paljon metsätaloudesta.	5	4	3	2	1
6	Voin halutessani vaikuttaa päätöksentekoon.	5	4	3	2	1
7	Politiikka ja päätöksenteko ovat hyvin ymmärrettäviä.	5	4	3	2	1
8	Minun kaltaisillani ihmisillä ei ole mahdollisuutta vaikuttaa päätöksentekoon.	5	4	3	2	1
9	Useimpiin ihmisiin voi luottaa.	5	4	3	2	1
10	Ihmiset ajattelevat enimmäkseen itseään.	5	4	3	2	1
11	Ihmiset pyrkivät käyttämään toisia hyväkseen.	5	4	3	2	1
12	Elämästä on tullut ennustamatonta.	5	4	3	2	1
13	Asiani järjestyvät hyvin suunnittelemalla.	5	4	3	2	1
14	Olen tyytyväinen elämääni.	5	4	3	2	1

18. Omistatko itse tai omistaako joku kotitaloudessasi metsää?

1 En → *Siirry seuraavalle sivulle.*
2 Kyllä → *Jatka kysymykseen 19.*

19. <u>Jos omistat metsää</u>, paljonko omistat?
(jos yhteisomistus, kotitalouden omistuksessa oleva osuus)

noin _____ hehtaaria

20. <u>Jos omistat metsää</u>, millaiseksi arvioisit metsän taloudellisen merkityksen kotitaloudellesi?

1 Ei merkitystä
2 Jonkin verran merkitystä
3 Melko tärkeä
4 Erittäin tärkeä

Lopuksi kysymme muutamia taustatietoja vastausten ryhmittelyä varten.

21. Sukupuoli

1 Nainen
2 Mies

22. Syntymävuosi _____

23. Asuinlääni

1 Etelä-Suomen lääni
2 Länsi-Suomen lääni
3 Itä-Suomen lääni
4 Oulun lääni
5 Lapin lääni

24. Nykyinen asuinympäristö

1 Maaseutu
2 Taajama tai pienehkö kaupunki
3 Kaupunki 20 000 – 100 000 asukasta
4 Kaupunki yli 100 000 asukasta

25. Lapsuuden asuinympäristö

1 Maaseutu
2 Taajama tai pienehkö kaupunki
3 Kaupunki 20 000 – 100 000 asukasta
4 Kaupunki yli 100 000 asukasta

26. Kuinka monta henkilöä kotitaloudessasi on itsesi mukaan lukien?

Yhteensä _____ henkilöä,

joista **alle 18-vuotiaita** on _____ henkilöä.

27. Koulutus *(valitse korkein suorittamasi koulutus)*

1 Kansakoulu tai osa keski- tai peruskoulua
2 Perus- tai keskikoulu
3 Ammattikoulu
4 Ylioppilas
5 Opistoasteen koulu
6 Yliopisto tai korkeakoulu
7 Muu koulutus

28. Elämäntilanne *(valitse vaihtoehto, joka kuvaa parhaiten nykyistä elämäntilannettasi)*

1 Maa- tai metsätalousyrittäjä
2 Muu yrittäjä
3 Ylempi toimihenkilö / johtavassa asemassa
4 Alempi toimihenkilö
5 Työntekijä
6 Työtön
7 Opiskelija
8 Eläkeläinen
9 Muu, mikä? _____

29. Bruttotulot *(kotitaloutesi yhteenlasketut tulot kuukaudessa ennen verotusta)*

1 alle 1 000 €
2 1 000 – 3 000 €
3 3 000 – 5 000 €
4 5 000 – 7 000 €
5 7 000 – 9 000 €
6 9 000 – 11 000 €
7 yli 11 000 €

Voit halutessasi kommentoida kyselyn aiheita tai tätä lomaketta.

_____

_____

_____

_____

Kiitokset vastaamisesta!

HELSINGIN YLIOPISTO