Citizens as political agents: A survey of competence, system satisfaction and the desire to influence the Finnish forest policy

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Abstract

The purpose of forest policy is to enhance the sustainable production of benefits of forests to serve the needs of all citizens. Theory of system justification claims that low status groups are the most likely to support, defend and justify existing social systems. This study explores how various aspects of forest related competencies affect satisfaction with the political system and the desire to influence decision making. The effect of competence on system satisfaction and the desire to influence outcomes, is evaluated using survey data on Finnish citizens' attitudes on forest policy. The results were in line with system justification theory: Competence decreases system satisfaction and increases the desire to influence outcomes. The dissatisfaction with the system becomes possible only if people have adequate knowledge. Forestry competent people tend to be satisfied with the system, while people with conservation knowledge tend to be dissatisfied. The challenges to the inclusion of citizens' views in political processes are addressed.

Keywords: *Citizen, competence, forest policy, legitimacy, system justification*

1 Introduction

Forest policy has effects on divergent citizen groups. In Finland, forest policy regulates the management of all forests both in private and publicly owned forests. Forest owners are restricted in using their property by forest laws and regulations. On the other hand, people who do not own the forests, still have everyman's rights to enjoy the property (Everyman's rights 2007).

The purpose of the forest policy is 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 2010a). Finnish forest policy operates in a conflicting field with strong claims for both intensive forestry and biodiversity conservation. For example, the legitimacy of the forest policy in Finland has been questioned by forest owners (Siiskonen 2007), Sami reindeer herders (Raitio 2008) and environmentalists (Raitio 2008, Donner-Amnell & Rytteri 2010).

The case of Finnish forest policy serves as an interesting starting point for studying the relationship between knowledge, system satisfaction and desires to influence, because the country has a long history of forestry. Forestry has traditionally been strictly in hands of professionals, who generally share the same attitude (see e.g. Paaskoski 2008, Primmer & Wolf 2009, Rekola et al. 2010). Further, Finland has taken an active role in the preparation and implementation of international forest policy. Therefore, the issues emerging in Finland might be of interest in other countries as well. Moreover, forest policy is a convenient political field to study, since it is quite definite – and is close to people. The issues that arise in this context between knowledge, system satisfaction and desire to influence, may well extend to issues in other political fields as well.

There is a tendency to increase participatory approach in policy making processes, for example in preparation of National Forest Program (Ministry of agriculture 2010b). In addition to the involvement of stakeholder groups, direct participation via the internet, is nowadays often available in policy formulation processes. However, it is questionable, how informed citizens are of these possibilities. And further, do they have enough interest, knowledge and other competencies to tell their views in policy making processes?

Mascarenhas & Scarce (2004) studied participants' views on public participation in land and resource management planning in British Columbia. They found that a legitimate planning process must have fair representation, appropriate government resources, and should be consensus driven. They highlighted the problem of integrating the public into a process that is highly technical, and traditionally dominated by scientists and professionals. They raised the question "who best represents the public when highly technical issues are under consideration?" Several studies have noted that forest professionals tend to be less supportive of environmental values as compared to production-oriented values, or the primacy of timber production (Xu & Bengston 1997, Wagner et al. 1998, Rekola ym. 2010).

After a study of various stakeholder perspectives, Kangas et al. (2010) suggested that in future regional forest programmes, the following aspects should be emphasized: framing and organizing the process, reaching commitment, role of different kinds of information, and ways of taking into account the views of the general public. They also pointed out the challenge in obtaining useful information on the general public's views and end with the suggestion that it might be reasonable to replace public hearings with other options like surveys concerning forestry issues, monitoring the public discussions in media, or carrying out a social impact assessment of forestry.

Based on the evidence from sociopsychological theories and empirical findings Jost and Banaji (1994)

proposed the theory of system justification. The theory claims that "system justification is the psychological process by which existing social arrangements are legitimized, even at the expense of personal and group interest" (ibid. p 2). From a political sciences perspective, system justification resembles Haugaards (2003) fourth form of power creation, 'false consciousness', which is also a central concept in the theory of system justification (Jost & Banaji 1994, p. 3).

System justification decreases negative affect and increases positive affect and satisfaction with one's situation. It reduces moral outrage, guilt and frustration. People who rationalize the system are less likely to ask for changes (Jost & Hunyady 2005). It is typical for both high and low status groups, but low status groups are the most likely to support, defend and justify existing social systems (Jost et al. 2003). Legitimizing of existing social arrangements is done by stereotyping to the characteristics of different groups. For example, giving attributes such as intelligent or hard working to the members of dominant group, whereas viewing the subordinate group members as lazy, or poor but happy, justifies their differences in economic and social status.

Drawing on system justification theory, it would be probable, that the people who lack competence, would tend to accept the system more than those who have more competence. Participation in decision making requires resources and if the forestry professionals' status is perceived as legitimate, then according to the theory, it is likely that the people with low forest related competence do not question the existing system. The contribution of this study is to provide understanding on how various aspects of forest related competence affect satisfaction with the political system - and further, the desire to influence decision making. The study indicates that there is a gap between the declared possibilities for citizens to express their views and those that are listened to in practice.

2 Survey data & methods

Finnish citizens' attitudes on forest policy were studied through a nationwide mail survey. The survey questionnaire was based on theories of legitimacy (Tyler 2006), previous studies on legitimacy (Sunshine and Tyler 2003, Weatherford 1992), qualitative studies of legitimacy of Finnish forest policy (Rantala and Primmer 2003) and two focus group interviews.

The questionnaire consisted of 142 attitude statements where respondent were to choose the best alternative according to their opinion. Attitude items provided response alternatives using 5-point Likert-scales: 1 fully disagree, 2 partly disagree, 3 neutral, 4 partly agree and 5 fully disagree.

For the purpose of this study the following 6 items are dissected. The first item measured the satisfaction with the system (as opposed to questioning it). The second item, desire to influence, measures the opposite: the desire to make a change (and also the will to exert power over the

resource). The following four items measured the various aspects of subjective forest policy competence, forest related knowledge and interests: opinion formation, interest in decision making, conservation knowledge and forestry knowledge. See table 1 for the wording of the statements.

Concept to be measured	**Wording of the statement** (*translated from Finnish by author*)
System satisfaction	I am satisfied with the way the forest issues are managed in Finland.
Desire to influence	I would like to influence forest related decision making.
Opinion formation	It is easy for me to have an opinion of various forest issues.
Interest in decision making	I am interested in forest related decision making.
Conservation knowledge	I am well acquiainted with forest conservation.
Forestry knowledge	I know a lot about forestry.

Table 1. Concepts and questionnaire items

In this study, the target population was Finns over 18 years of age. A random sample of citizens (n= 3000) were sent a mail questionnaire in the year 2008. The response rate was 42 %. If more than half of the responses were missing in the questionnaire items, the respondent was left out of the analysis. The final data consisted of 1214 respondents. (Valkeapää et al. 2009).

The relationships between the items are first examined by Spearman's correlations. Then the effect of different competence items on legitimacy are dissected in two ways: Firstly, the relationship between system satisfaction and the desire to influence, and competence items, is analyzed with Pearson's chii-square test of independence. Secondly, the equality of the means in system satisfaction and desire to influence in each of the competence items group, item by item, are tested by Kruskal-Wallis analysis of variance. Finally, the differences in groups are dissected by contrasting the most extreme groups. The non-parametric tests are used, because the assumptions of the parametric tests were not met in this data.

3 Results

In **Table 2**, there are frequencies of the response alternatives concerning system satisfaction, desire to influence and subjective forest policy competence. Almost half of the respondents were satisfied with the way forest issues are managed in Finland (48,2 %, partly agree + totally agree). Many would like to exert influence on forest related decision making (40,3 %). Most of the respondents are interested in forest related decision making (66,7 %) and can easily form an opinion on forest

issues (51,2 %). But only a few have knowledge on forest conservation (22 %) and even fewer have knowledge of forestry issues (19%).

	System satisfaction		**Desire to influence**		**Opinion formation**		**Interested in decision making**		**Conservation knowledge**		**Forestry knowledge**	
	n	%	n	%	n	%	n	%	n	%	n	%
Totally disagree	45	4.1	103	8.8	83	7	47	4.0	194	16.4	331	28.0
Partly disagree	307	27.6	158	13.5	271	22.8	109	9.2	397	33.5	359	30.3
Neutral	224	20.2	438	37.4	225	19.0	238	20.1	333	28.1	268	22.7
Partly agree	492	44.3	325	27.8	436	36.8	519	43.9	220	18.5	186	15.7
Totally agree	43	3.9	146	12.5	171	14.4	269	22.8	42	3.5	39	3.3
Total	**1111**		**1170**		**1186**		**1182**		**1186**		**1183**	

Table 2. Frequencies and percentages of responses

The correlations in **Table 3** show that the knowledge items (3-6) are strongly correlated with each other. The correlation between system satisfaction and desire to influence is weakly negative. The system satisfaction is not associated with all competence items, but to those which it is, the correlations are negative. Desire to influence is positively correlated with all competence items. Conservation knowledge and forestry knowledge are highly correlated (rho = .64) and they behave in quite same way with other items, but conservation knowledge is negatively associated with system satisfaction, while forestry knowledge's correlation is close to zero. Desire to influence has slightly bigger correlation with conservation knowledge, (rho = .44) than with forestry knowledge (.40).

	Spearman's rho	**1**	**2**	**3**	**4**	**5**
1.	System satisfaction					
2.	Desire to influence	-0.15**				
3.	Opinion formation	0.00	0.40**			
4.	Interest in decision making	-0.09**	0.61**	0.52**		
5.	Conservation knowledge	-0.07*	0.44**	0.49**	0.46**	
6.	Forestry knowledge	0.01	0.40**	0.51**	0.45**	0.64**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3. Spearman's correlations for the attitude items.

We used Pearsons' chi-square test of independence to analyze if system satisfaction and desire to influence are 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 an effect ($p=.011$) on system satisfaction as other competence items (**Table 4**). For desire to influence, there were significant effects for all competence items ($p < .001$). Hence, the system satisfaction and desire to influence are not distributed evenly in different levels of competence items.

	System satisfaction		**Desire to influence**	
Independence test	Chi square	Asymp. sig.	Chi square	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	

Table 4. Chi square independence test. Test statistics and their significances.

Then we tested if the means of system satisfaction and desire to influence differ between competence items levels. This test did not show that clear differences for system satisfaction as the test for independence, but the interest in decision making had significant effect on system satisfaction means (**Table 5**). Also the opinion formation and conservation knowledge were slightly significant. The forestry knowledge did not have an effect on means of system satisfaction. The most positive respondents with opinion formation, interest in decision making and the conservation knowledge, all had the lowest mean in system satisfaction. For the desire to influence, all competence items had significant effect ($p < .001$).

	System satisfaction		**Desire to influence**	
Kruskal-Wallis	Chi square	Asymp. sig.	Chi square	Asymp. sig.
Opinion formation	9.3	0.055	203.7	$< .001$
Interest in decision making	11.2	0.024	448.3	$< .001$
Conservation knowledge	8.8	0.066	242.6	$< .001$
Forestry knowledge	1.0	0.916	194.6	$< .001$
	df=4		df=4	

Table 5. Kruskal-Wallis test. Test statistics and their significances.

Since there are differences in distributions of system satisfaction, but the differences between means are not so significant, where are the differences? Next we examine how system satisfaction is dependent on subjective forest policy competence statements. We shall contrast the most extreme answers on knowledge questions, "totally disagree" and "totally agree". We note that while our approach visualizes the differences quite clearly, it is based on a limited subset of the data. Further approaches are under investigation.

The general feature in **figure 1** is that there are only a few respondents, who totally agree or disagree with system satisfaction measure, the three alternatives in the middle are the most popular. Another obvious inference is the M-shape for the ones who are most competent. So there are not many neutral answers, but many partial agreements and disagreements. Whereas, the least competent ones have one peak-shape distribution, with the peak at partly agree, with a lot of neutral answers. Further, those who have knowledge of forest conservation issues, tend to have a more negative attitude towards forest policy, while people who have knowledge of forestry tend to have a more positive attitude (**figure 1**).

In case of desire to influence, the situation is more straightforward: there are obvious differences in distributions (**Table 3**) as well as differences between means (**Table 4**). The correlations show the direction (**Table 2**): the greater the subjective competence, the more desire there is to influence

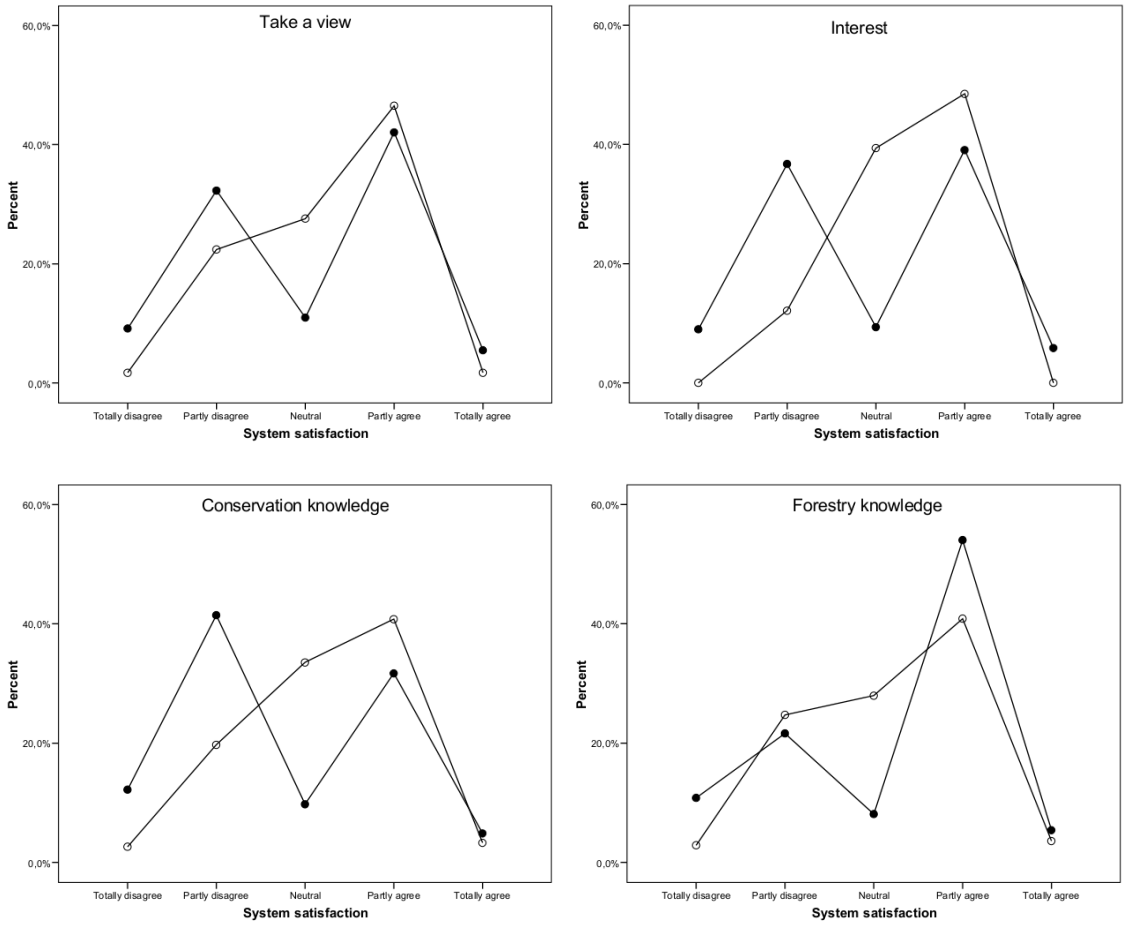

Figure 1: System satisfaction interrelation with various forms of competence. Solid line = the most competent, dashed line = the least competent

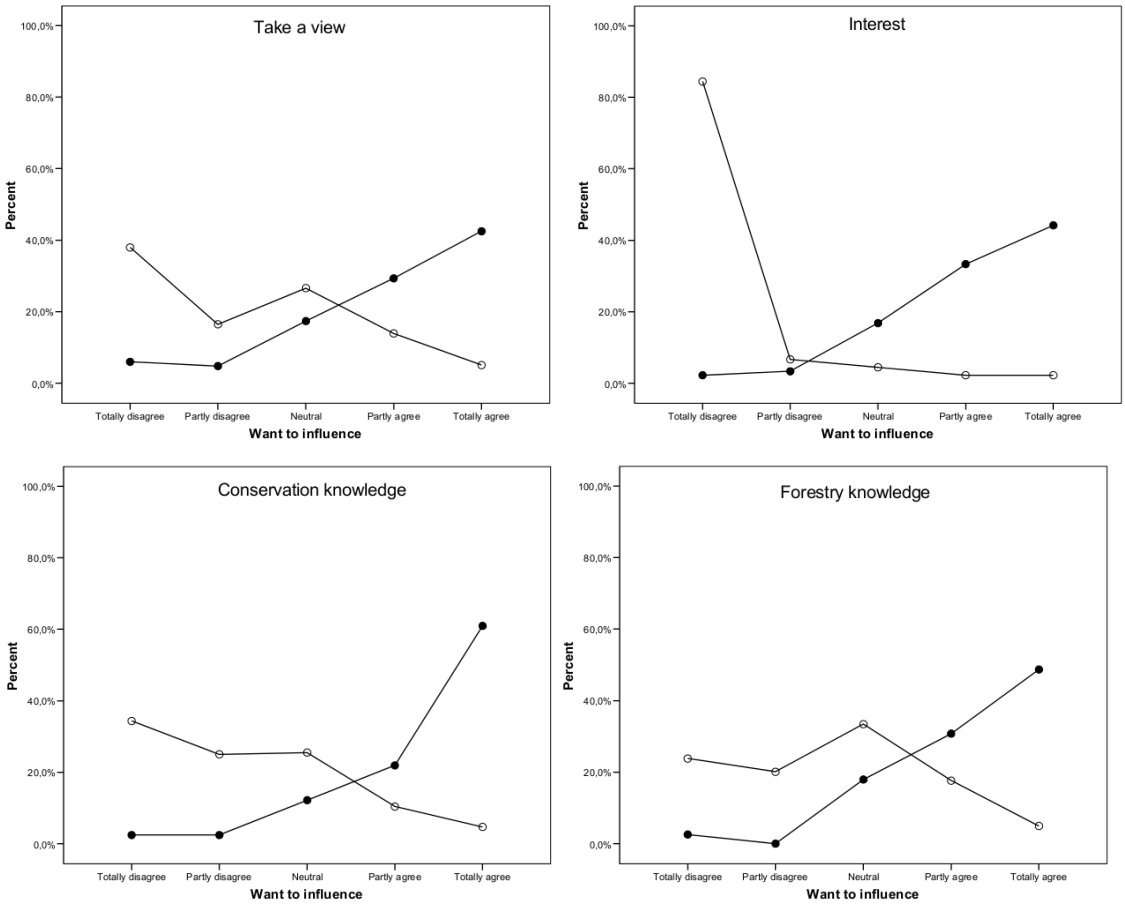

Figure 2: Desire to influence interrelation with various forms of competence. Solid line = the most competent, dashed line = the least competent

decision making. The contrasts of the most extreme answers on knowledge questions, "totally disagree" and "totally agree", are shown in **figure 2**.

4 Discussion

We studied with a nationwide survey how various forms of competence on forest issues affected Finnish citizens' satisfaction with forest policy and their desire to influence on it. Almost half of the respondents are satisfied with the way forest issues are managed in Finland, and many would like to have influence on forest related decision making. Most respondents are interested in forest related decision making and can form an opinion easily on forest issues. This is explained by the fact that

forests are an essential part of the Finnish landscape and everyday surroundings, covering more than 70% of the land area of Finland (FSYF 2009). Measured by the proportionate share of forests in the total land area, Finland is the most forested country in Europe. Almost all Finns (97%) practice outdoor recreation (Sievänen, 2000). Therefore, many Finns have close contact to forests, and forest policy has a corresponding importance for them. Conservation and forestry knowledge are linked together and they behave similarly with respect to system satisfaction and the desire to influence. The slight differences were,that system satisfaction was slighly negatively associated with conservation knowledge, while it was not associated with forestry knowledge. Desire to influence was more closely associated with conservation knowledge than with forestry knowledge.

However, the interest in decision making was negatively correlated with system satisfaction. **Figure 1** illustrates that when people have competence in forest related issues, they tend to take either a positive or a negative view of forest policy. But when they don't have competencies, they tend to have a neutral or positive image of forest policy. But when a person doesn't have the necessary competence, then they tend to have a neutral or positive image of forest policy. In conclusion, people have a tendency to be satisfied or neutral towards the system, if they do not know a lot about it. In short, dissatisfaction with the system is likely only if people are aware of issues.

These results are in line with system justification theory (Jost & Banaji 1994). Those people, whose competence is low, are not likely to question the system. According to the theory, the belief in the legitimacy of a policy shelters people from seeing its defects, if the possibilities to affect it are limited (Jost et al. 2003, 2004). Finnish forestry is considered a strong national success story (see e.g. Reunala et al. 1999, p. 9) 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", that appear, for instance, in school books. This success story works probably to legitimize the status of forestry and forestry professionals. While participating to the decision making needs resources and these slogans are widely known maybe even internalized, people with low forest related competence tend to be satisfied with the existing system even when they may complain about the details as the theory suggests.

Although people were quite content with forest policy in general, there was one outstanding issue that emerged in this same survey: majority of respondents did not approve the clear cutting method, which is a major tool for forest regeneration in Finland (Valkeapää et al. 2009). The result is understandable, since clear cutting causes a dramatic change in the landscape very quickly, and for a long time. Yet, the result raised a wide public debate of the regeneration methods, as well as the question of asking citizens opinions in a specific political field, where they do not have the necessary competence. The tension between public versus expert knowledge was obvious in this debate as it has been noted in U.S. (Mascarenhas and Scarce 2004).

The awareness of forest conservation issues was more closely associated with interest in decision making, than an awareness of forestry issues. This might reflect the same issue that Valkeapää &

Karppinen (2010) presented, based on the same data, when comparing forest owners to non-owners. They found that forest owners were more content with forest policy and accepted the power relations more than the non-owners did. This leads one to reflect, that the forest policy serves forestry interests better while conservation issues are not paid that much attention to in decision making. This echoes Rekola et al's (2010) finding, that for forest professionals, forest production was more important than nature conservation.

The forest debate in Finland is polarized with two value positions: forestry and nature positions (Rantala and Primmer 2003). The forest conflicts are mostly between these positions. Gritten et al. (2010) proposed ethical analysis to understand the interests, values and principles of the conflicting parties, in order to provide better understanding of the conflict that would increase the possibility of a resolution. The polarization of the positions is visible also in this study: the knowledge of forestry increases the satisfaction with forest policy, while knowledge on forest conservation increases the dissatisfaction with the policy. The forestry position has semi-official status, whereas environmental position represent the new civil society (Rantala & Primmer 2003). Forestry professionals are very similar in their positions (Primmer & Wolf 2009) and the majority in political processes represents forestry positions (Finland's national... 2008 p.45) so the nature position tends to be the outgroup in defining the forest policy.

The desire to influence is positively correlated with all competence items. The recent increase in participatory approach in policy-making processes obviously focus on those, who have interest and competencies enough to express their views through the various modes of participation available. Even though most respondents were interested in decision making concerning forest issues and they could easily take a position on forest issues, presumably, most of the citizens do not know when these policy processes are going on, and much less, the ways to manifest their views during the processes. Further, it is probable, that the percentages of the competent people in this sample are overestimates compared to the general population, since the response rate was 42 % 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).

Taking part in the policy making process demands a lot of competence and resources, at least time resources (see also Mascarenhas & Scarce 2004), but financial resources may also help to get heard. While the wealthiest stakeholder groups employ professionals for these processes, the less wealthy work on a voluntary basis. Further, there is a risk that the large interests are not represented at all in decision making processes. For example Kangas et. al. (2010) found that none of the stakeholder groups in regional forest programs regarded involving the general public and non-organized stakeholder groups particularly important. If we keep in mind the purpose of forest policy - to enhance the sustainable production of the benefits of forests to serve the needs of all citizens - the citizens' views play a key role.

Essential features of a democratic society are the different aspects of public participation: open decision-making, access to information and flexibility to citizens demands (Appelstrand 2002). Besides the involvement of stakeholder groups and direct participation possibilities via web pages, there should be a way in which citizens' viewpoints will be advocated in the political processes. As Rothstein (2009) puts it: "Legitimacy turns out to be created, maintained and destroyed not at the input, but at the output side of of the political system." Hence, it is not so important *how* the citizens' viewpoints are integrated into decision making, but the crucial thing is that they *are* taken into account.

Thorough surveys provide one way of obtaining grounded information on citizens' views that is generalizable to the population. Although the information can be made available, the question raised by Mascarenhas & Scarce (2004) remains: "who represents citizens' views in stakeholder dominant processes?"

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