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**POSSIBILITIES AND LIMITATIONS OF PARTICIPATIVE GOVERNANCE**

Public Participation in Water Governance in Finland and Sweden

Master's thesis in  
Public Management

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**ABSTRACT:**

The aim of this study is to analyse citizen participation in small water restorations. Citizens are viewed as stakeholders in certain geographic area, that is, landowners near stream waters. Citizen participation is especially important in small water restorations for two main reasons. First, a permit is needed from landowners for restorations to be at all possible. Second, citizens are needed for volunteer work.

The main research question is: What are the possibilities and limitations of participative governance? The following additional questions clarify the main question: 1) What is participative governance? What does it signify concerning small water restorations? 2) Water governance both in Finland and Sweden. What are the laws, officials and procedures behind stream restorations? 3) The key elements in encouraging people to participate in small water restorations, both in Finland and Sweden. Are there differences between Finnish and Swedish landowner's views?

The theoretical contribution of the study concentrates on the different aspects of citizen participation. Citizen participation can be defined as a synonym for citizen power. The citizens should have real power needed to affect the outcome of different participation processes. Furthermore, water governance and the general idea of small water restorations are discussed. Small water refers to for instance forest streams, pools and springs. Stream restoration can be defined as returning to the natural or undisturbed state of the water ecosystem. The new European Water Policy influences in the background of small water restorations. Its goal is to get polluted waters clean again, and to ensure clean waters are kept clean.

The study is comparative in nature. The cases are analyzed using a quantitative approach. The comparison is based on a questionnaire made for the study, realized both in Finland and Sweden to grasp on people's attitudes towards small water restorations. The material is based on literature, websites and other publications, such as magazines, chosen within the framework of the study.

Main findings can be summarized as follows. First, to increase willingness to participate citizens need to be offered with a sufficient amount of information. Second, the willingness to participate is limited because of attitudes concerning for instance small waters and their importance. Third, it is possible to increase the willingness to participate by developing better opportunities to cooperate.

As a conclusion, it can be said that on one hand, the officials have not succeeded so far in the goal of getting citizens to participate in restorations and to work together in collaboration. On the other hand, despite the fact that the public is not participating in restorations of small waters in a sufficient extent, the citizens are nevertheless more aware and worried about the state of small waters. Perhaps in the future people would like to participate more in the decisions that have a direct effect on them. The challenge is to transform this desire in to actual participation.

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**KEYWORDS:** citizen participation, water governance, stream restorations, the European Union, The new European Water Policy



## 1. INTRODUCTION

I have been interested in environmental issues for many years. Through my internship in summer 2010 I made a study concerning small waters, especially small water restorations. I learned that running waters are globally among the most severely damaged ecosystems. The condition of small waters, such as forest streams, pools and springs, has dramatically impaired as a consequence of various land-use activities and habitat modifications, such as regulation of flow and water level. The endangered natural state of small waters together with the fact that the citizens of the European Union claim for cleaner waters, has resulted in the creation of the new European Water Policy. The aim is to get polluted waters clean and to keep those waters clean also in the future. Two concepts can be used to describe restorations: small water restorations and stream restorations. Water restorations are done in order for water- and coastal-nature, recreational usage- and fishing possibilities, and valuable views to be normalized and preserved. The objective is to attain the water's natural state. Co-operation of governments, multinational organisations and also citizens is needed. Particularly the role of citizens and citizens' groups is crucial when cleaning our common waters. In this regard, there needs to be more information given to the citizens concerning waters. It can be said that the current participation of the public in the area of caring for water is not enough, and more involvement with citizens, interest parties and non-governmental organisations (NGOs) is required.

The theme of this study is citizen participation. 'Governance' clarifies the characteristics of participative governance. Governance means the process of decision-making and the process by which decisions are implemented or not implemented. The purpose is to create optimal conditions for collective action and ordered rule. Government belongs to its citizens and therefore other interest groups besides authorities should be able to participate in decision-making. The principle of participation comes from an acceptance that people are at the heart of development. Through participation citizens come to share a development vision, make choices and manage activities. Citizen participation should be increased by concentrating at the local level and to interests in local people's everyday lives. Accordingly, the bottom-up viewpoint is central for the study of participation.



Citizen participation is an important part of good governance. Citizen participation is stressed as a core value by governments and supranational organizations such as the European Union, the World Bank and the OECD. Citizen participation is highly valued especially in the context of society and democracy. Citizenship, and citizen's rights and duties are important, though not simple matters. In addition, citizenship is not necessarily limited to the nation state anymore. With the European Union has also been born European citizenship. Legitimacy is a *raison d'être* of participation. The environment of participation has changed, and perhaps in the future people would like to participate more in the decisions that have a direct effect on them. The challenge is to transform this desire in to actual participation. Leaders in the public sector have a duty to help citizens to understand their value for the society and this way increase the legitimacy of decisions.

In this study I will examine participative governance in the sphere of cleaning waters. The interest is specifically on stakeholders. The term "citizens" is typically referring to either individuals, or different groups of people or inhabitants in a certain geographic area. In this study the term is referring to inhabitants in a certain geographic area, that is, regular people who own land onshore of small waters. When it comes to stream restorations, landowners will be in a very important part. Without permissions from landowners no restorations can be done. Landowners are also needed in voluntary work during restorations. Therefore it is very important to spread information about small water restorations already beforehand. The objective is to share information in a manner that all affected individuals or communities receive adequate information in a timely and meaningful manner. To achieve this, information must flow from governments in ways that genuinely support people's informed participation.

The main research question is:

- What are the possibilities and limitations of participative governance?

The main question is followed with these sub-questions:

- a) What is participative governance? What does it signify concerning small water restorations?

- b) Water governance both in Finland and Sweden. What are the laws, officials and procedures behind small water restorations?
- c) The key elements in encouraging people to participate in small water restorations, both in Finland and Sweden. Are there differences between Finnish and Swedish landowner's views?

The analysis of this study is quantitative in nature. As empirical data I shall use a questionnaire I made during my internship in summer 2010. The questionnaire was made to get information about people's interest in stream restorations and their attitudes towards small waters. The questionnaire was sent to landowners close to four different small water areas both in Finland and Sweden. The approach of this thesis is comparative. The comparison concerns differences between Finland and Sweden in landowner's views about small water restorations. In general, the assumption is that landowners in Sweden are more enthusiastic about small water restorations than those in Finland. Moreover, Swedish landowners are assumed to be more informed about water issues. Theoretical basis of this study is based on theories about citizen participation, for instance Sherry Arnstein's (1969) "The Ladder of Participation" is used as a theoretical framework for analysing participation. To make a better understanding of water governance both in Finland and Sweden, and small water restorations in general, these topics are also discussed in the study.

A challenge for this thesis is the fact that this particular subject has not been examined previously. Therefore, finding material and constructing the thesis has faced some challenges. Moreover, water is an issue that can often be quite controversial and emotive. Nevertheless, the empirical part of the thesis was made for a Botnia-Atlantica-collaboration-project enforced mainly by the South Ostrobothnia Centre for Economic Development, Transport and the Environment, which in my opinion gives this study true value.

This study is divided into six chapters. The next chapter of this study concentrates on the theoretical features of participative governance. In the third chapter this study examines different aspects and actors of water governance both in Finland, Sweden and

on European level. In the fourth chapter small water restorations in general and citizen participation connected with restorations are studied. The empirical data is analysed in chapter five. The last chapter concludes this thesis.

## 2. PARTICIPATIVE GOVERNANCE

*“Democratic institutions and the representatives of the people, can and must try to connect Europe with its citizens. This is the starting point for more effective and relevant politics.” (European Commission 2001: 3).*

The principle of participation comes from an acceptance that people are at the heart of development. People are both the beneficiaries and the agents of development. Participation could come true by direct or through legitimate intermediate institutions or representatives and it needs to be informed and organized. There should be a freedom of association and expression on the one hand and an organized civil society on the other hand. Participation by both men and women is an essential part of good governance. Public officials should be answerable for government behaviour, and responsive to the entity from which their authority is derived. (Asian Development Bank 2006; UNESCAP 2008.)

### *Governance*

‘Governance’ helps to understand better the characteristics of participative governance. As a term ‘governance’ is as old as human civilization. Governance means the process of decision-making and the process by which decisions are implemented or not implemented. Governance can also be seen as the process whereby public institutions conduct public affairs, manage public resources and guarantee the realization of public rights. A governance system is a hierarchical system and markets, state, family, networks and associations are examples of different levels of governance systems. One of the actors in governance is government. Other actors that can play a role in decision-making or influence in the decision-making process are for example media, lobbyist and multi-national corporations. (Tiihonen 2004: 19–21; UNESCAP 2008; The United Nations 2008.)

Niemi (2008: 31) defines governance as an act of societies steering themselves. There can be made a difference between governance and governing, governance been seen as a broader definition which includes a theoretical conception of governing. Governing

therefore means all interaction between government and public, including private sector actors. The main difference between these concepts, however, is in their way of action. Governance concentrates on changes in governing, to different ways of doing politics, to relationships between actors making decisions and distinctive relationships between the state and civil society. This definition of governance through action and change opens many choices to build governance in various ways in different environments and with different people.

There are six minimum characteristics of governance, which are, political accountability, freedom of associations, a sound judicial system, bureaucratic accountability, freedom of information and expression, and capacity building. These characteristics emphasize political elements. According to another view, there are four indicators of governance. These are government's ability to ensure political transparency and voice for citizens, provide efficient and effective public services, promote the health and well-being of its citizens, and create a favourable climate for stable economic growth. Governing is a process which aims at order. The purpose of governance is to create optimal conditions for collective action and ordered rule. (Tiihonen 2004: 19–21; 81–82; UNESCAP 2008; The United Nations 2008.)

### *Good governance*

Good governance shares a very strong bond with citizen participation and vice versa. Participation is a value in itself, but it is also a crucial part of implementing other values of good governance. Governments and supranational organizations such as European Union, World Bank and OECD stress citizens and their participation as the core value of development of administration and good governance. Citizen participation is included in several good governance code lists by international organizations (World Bank etc.) and also countries have been actively formulating their own lists of codes (for instance Finland has codes for good local governance). Participation is also included in the five principles of good governance of the European Union together with openness, accountability, effectiveness and coherence. It stands for the fact that quality, relevance and effectiveness of the Union policies depend on ensuring wide participation

throughout the policy chain – from conception to implementation. Improved participation is likely to create more confidence in the end result and in the institutions that make decisions. Participation depends on central governments to develop citizen's participation when developing and implementing Union policies. (Hyvä kunnallinen hallintotapa 1993; Eurooppalainen hallintotapa: valkoinen kirja 2001:17; Niemi 2008: 30–34.)

Good governance is more than merely effective and efficient activity. Citizen participation should be a necessary outcome of a movement from isolated and bureaucratic modes of governance to more open, transparent, and participatory approaches. Participation is seen as a way to restore people's confidence to political and administrative activities. Niemi (2008: 7–8) emphasizes that the bottom-up viewpoint is inevitable for the study of participation. In the relationship between public and government as a part of democracy, it ought to be remembered that government belongs to its citizens. When good governance comes true, other interest groups besides authorities are able to participate in decision-making. It is better if the public participates more and influences in new ways especially in local political decision-making. However, the final right to make decisions is still in the hands of authorized representatives. In addition to the fact that decisions should be made right, the decisions should be made of the right things. Participation enables the citizens to influence both. (Niemi 2008: 35.)

#### *The definition of citizen participation*

The World Bank (1996: 3) defines participation as a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. Participation can be defined as the action of taking part in something, and as a verb, it means to be involved or to take part. Niemi (2008: 29) opens up the term further by stating that participation has its actors, focus, and rationale, as well as effects. It is the inclusion of employees or their representatives in the process of management decision-making. The term “citizens” is typically referring to either individuals, or different groups of people or inhabitants in a certain geographic area. It

can refer to an individual operating alone to influence his/her own area, or to an individual as a member of different kinds of social groups based on individual's gender, age, education, occupation, work, studies, family, background, place of living, hobbies, or ideas and beliefs. Citizen participation is a multidimensional concept and it is particularly valued in the context of society and democracy. Legitimacy is an important factor, since it is often interpreted that the existing worries of reduced citizen participation focus on the condition of legitimacy. Participation can also be divided into broad or narrow participation. Broad definition of citizen participation refers to participation together with a combination of different kind of organized or unorganized social activity. Narrow definition of citizen participation limits participation to attempt to influence in social decision-making in different levels.

The World Bank (1996: 174) notes that through participation people come to share a development vision, make choices and manage activities. The objective of information sharing, therefore, is to ensure that all affected individuals or communities receive adequate information in a timely and meaningful manner. To achieve this, information must flow from governments in ways that genuinely support people's informed participation. According to Savolainen (2007: 40) public participation can be examined from three points of view: access to information, participation in planning and decision making, and access to justice in environmental matters. Access to information should be provided in a way that it is accessible to as many people as possible. This is because different cultures, different target groups and different activities cannot be reached with one and the same form of information. Information should therefore be distributed in a way that is continuous and most appropriate to particular audiences. In addition to providing access to information the public needs to be encouraged to participate.

## 2.1. Legitimacy, politics and people's involvement

### *Political aspect of citizen participation*

People's natural concern for the society where they live is included in political

participation. Citizen participation is often connected with politics, but it is more than just voting or member-activity in the political parties. The problems of lack of people's involvement are illustrated in several ways, for instance, in low turnout numbers in elections and as a lack of memberships in political parties in general. There may be several reasons for the lack of participating in political life. The most common reason is that people are frustrated and feel as if their participation does not make any difference; there is no significance whether or not one participates. Naturally, the more strongly individuals believe there is little that can be done to affect political decision-making in their society, the less likely they are to become active. Another reason is that people may feel they do not understand politics enough to participate. A third reason is that people are passive and do not care about what happens around them. Moreover, political powerlessness is most common among groups living in relative poverty. Meanwhile, low turnout can also be interpreted as a positive phenomenon; citizens are in fact satisfied on their government and think that participation is not necessary. Some research shows that in Norway the declined electoral turnout lead to a growth in citizen's interest toward common issues. The conclusion is that there is interest among citizens to participate, but it may not be channelled properly or taken into account in decision-making processes. (Ross 1975: 297–300; Niemi 2008: 40–41.)

I believe the mentioned three reasons for people not to participate are quite common. The feeling of not being able to influence is the reason one quite often hears from people who do not participate. For instance, in environmental issues people feel that as individuals they cannot have enough influence on environmental issues, it is thought that it is governments and supra-national organization's duty to take action in these issues. Also, people quite commonly feel that they do not understand politics enough to participate. In my opinion, politics is something that concerns everyone, and it should not be a matter of knowledge, but a matter of interest. If one is interested, say, in environmental issues, one will begin to have knowledge about them just by participating. In general, I believe citizens are mainly passive and do not care what happens around them. What could be done to change these views?



*Legitimacy and participation*

Participative governance offers a response to the problem of the legitimacy of government institutions and, in addition, a potential solution to a range of social problems. The state is unable to deal with the complexity of policy problems and to respond to the differentiated needs and identities of citizens. Newman (2005: 120–122) sees participative governance in an essential role in a modernized policy process suited to the needs of complex societies, in which questions of legitimacy are important. Previously, the fulfillment of voters' wishes through voting and political representation was considered the ideal for democracy. However, quite commonly representative democracy is viewed as a necessary but insufficient means of connecting citizens with governing institutions and processes. Since the early 1990s, calls for open, rational civic discussion as prerequisites for the legitimacy and validity of democracy have increased. A political decision must therefore be only deemed acceptable when it can be convincingly rationalized to the citizens. (Hokka, Laine, Lehtonen & Minkkinen 2004: 205.)

When aiming for publics' participation, the goal is not solely to solve common concerns about citizen disinterest and mistrust of government but also to discover many positive opportunities which exist. Participative governance refers to a strategy to address social exclusion, and expanding the possibilities for state-citizen interaction into informal arenas, thus helping to broaden the base of participation by reaching so called 'hard-to-reach' groups. It also refers to a means of engaging the public in taking responsibility of their own care and welfare. Instead of providing the service, the state creates a platform or environment in which people take decisions about their lives. Therefore, the role of the state moves from (paternalistic) provider to (participative) enabler. It is suggested that new forms of citizen participation may be more than external changes in the public realm and the public itself – they may be constitutive in their effects. (Newman 2005: 123–128.)

Habermas (1989: 2–5) also sees citizen participation as a solution for the legitimacy crisis of the public sphere. The concept of the public sphere is a public form of

discussion and decision-making and a site of communicative action performed by participatory publics. Its meaning is formed through both its conceptual distinction from three other spheres (patriarchal family, state and market economy) and its role in linking these together. The public sphere is going through erosion through processes of commodification (the rise of the mass media) and feminization (through a progressive interweaving of public and private realms). To overcome the resulting legitimacy crisis it is necessary to repoliticize the public sphere by providing opportunities for citizens to engage in communicative interaction.

*Direct and representative participation concerning environmental issues*

Democracy means “the rule of the people” and it has its roots in the Greek words ‘demos’ and ‘kreatos’. The word ‘demos’ refers to people (free men) and ‘kreatos’ to ordering power also in the sense of governing. In democratic systems people are assumed to decide directly about their own issues or, if it is not possible, let them choose someone to advocate them in their cases. Democracy includes two different types of participation: direct or participatory democracy and representative or liberal democracy. Direct democracy refers to decision-making and citizen direct involvement, while representative democracy is about political rule to elect some individuals to ‘represent’ the interests and views of citizens. Proponents of direct democracy see that the democratic ideal of political equality emphasizes citizens’ own ability to be the best person to evaluate his or her own interest. Direct participation is more controversial than traditional representative democracy and it has been blamed to be 1) based on a false notion, 2) inefficient, 3) politically naïve, 4) unrealistic, 5) disruptive and dangerous. (Niemi 2008: 43–45.)

This critique on direct participation is based on the imperfect nature of human. People are seen as passive and apathetic and their acts are seen as irrational and therefore unreliable. Secondly, direct participation as a mass act is expensive, slow and complicated which makes it inefficient, politically naïve and unrealistic. It is the small minority élite of professionals and experts, who are informed and knowledgeable, that should be in charge of decision making. Finally, direct participation is seen disrupting or

even endangering the stability of politics, creating political conflicts and malfunctions. Therefore, according to Niemi (2008: 44), citizen participation can be developed in two different ways. First, traditional way is to develop representative democracy. Second, radical way gives some kind of radical possibility to develop democracy. (Niemi 2008: 43–45.)

In their study Coenen, Huiterna and O’Toole (1998: 5) consider a similar dilemma, which is choosing between centralization and decentralization as the best tool for environmental policies. According to centralization, ecological problems can be solved only by strong centralized control of human behaviour, thus making decisions by central authorities. On the contrary, decentralization recommends decentralization and participation as the basis for communicative and ecological rationality. Moreover, Coenen et al. (1998: 5–6) sketch three reasons why democracy and sustainability can be incompatible; the social justice challenge, the technocratic challenge and the economic challenge to democracy. According to the social justice challenge environmental problems are too urgent, and the luxury of democracy must necessarily await their resolution. The technocratic challenge implies that even if the public is informed, environmental problems may not be understood and thus the right decisions are not taken. Finally, economic realities may be such that many policy options are ruled out because choosing them would be punished by market forces. Perhaps because of these three challenges, neither bureaucrats, politicians nor the public are very enthusiastic about participatory possibilities in environmental decisions at the moment. Participation has often been experienced as too complicated and lengthy, or even pointless – “mustard after the meal”.

## 2.2. Possibilities of public participation

### *Citizenship as a base for participation*

Citizenship is an important factor concerning small water restorations, since clients or customers are as a rule not the subject of interest, it is the citizens. Therefore citizenship

is an important matter. Citizens and their participation and involvement are in no way new ideas; they have been an issue since the time of Plato and they are still a very popular subject in social sciences. Traditionally, citizenship is gained through place of birth or by one's parent's citizenship. The nature of citizenship and its relationship is a legal concept. Citizenship is defined as membership, status, a set of rights and duties, equality, and active participation. Participation comes true as roles of membership and as active participation. Participation is defined by citizenship and its nature. A good citizen has a feeling of responsibility and solidarity to the surrounding society. Consequently, caring for the nature, for instance, is a part of being a good citizen. People have many roles as members of their society. (Niemi 2008: 36–37.)

Niemi (2008: 36–39) looks at citizenship according to three different dimensions: dimension of rights, dimension of participation and dimension of identities. Dimension of participation is above all an opportunity to participate in public life, for instance in volunteering for small water restorations and in this way to influence to decision-making processes. The public should have an equal access to participation, and it should be possible in all areas of social and political life. Full citizenship is not only about formal civil, political and social rights but also about the idea that everyone has enough resources and confident to take advantage of these possibilities, and citizenship is therefore both participatory and egalitarian. Participant is one of the roles of a citizen. Participation also depends on power sharing because without power, participation cannot be influential. Citizenship has a major influence on legitimacy of governance and social capital in a democratic society. Citizenship and nationhood have become inseparable in the modern world and, therefore, possibilities for active citizenship are largely consequential. It will be ever difficult to gain legitimacy for decisions without active public involvement. (Niemi 2008: 55.)

### *Activating civil society*

Civil activism in the European countries could indeed be, according to Bovaird, Löffler and Parrado-Diez (2001: 2–3), a great deal higher than it is currently. As a reason the individualization of the modern society is mentioned, claiming that it has affected the

building of social capital in a negative way. The suggestion is that people and communities have been divided in the modern society which has resulted in social activities becoming individualized. For instance, having meals and watching television in one's own room rather than with the family and listening to music on a MP3 player rather than going to a concert with friends. The movement away from collective activities has affected the building of social capital and therefore on the capacity for collective action in those spheres where individual action is either weak or pointless – particularly in the provision of public services and the protection of the public interest. Consequently, Bovaird et al. (2001: 4) suggest that the level of civil activism in most European countries could be significantly increased, using mechanisms already available elsewhere in Europe. Furthermore, the approach which is most likely to be effective in activating civil society in each country will depend on its existing characteristics, in which national cultural differences will play an important part, and should be based on the opportunities currently offered in the specific economic, social and political circumstances of that country. Activating civil society is considered to be a responsibility of all local stakeholder groups.

Bovaird et al. (2001: 16), therefore, claim that to realize good local governance, it is no longer sufficient for a local agency to be an excellent service provider. Instead, it must also be excellent in the way it delegates political and social responsibilities in the community. In practice, this means advancing of social capital and exploiting fully the potential of civil society by developing a political and administrative infrastructure that is capable of encouraging and supporting community participation in planning, decision-making, execution and evaluation.

In brief, activating civil society can be considered to be one of the key elements of local governance. Activating can be executed with the co-operation of the following actors: citizens, voluntary sector, business, media, higher levels of government (including international levels) and local authorities. These actors could strengthen local governance by helping to activate the engagement of other actors and by responding to these actors when they become more active. Moreover, information about local governance issues and performance is an essential requirement to get citizens involved

(Bovaird et al. 2001: 12). The position of local levels is essential since in there the pressures and opportunities for civic participation are the greatest. However, there are many institutional barriers towards community-based local solutions and development. First, problems of communication; information about the possibilities and challenges of volunteering may not be available to all of the population. Second, combining inflexible working schedules with voluntary engagement might not be possible in all cases. Third, getting financial support from the private sector can be difficult. Finally, the governance structures of local authorities, companies, associations and other voluntary organizations may not be flexible enough to accommodate the needs and wishes of potential activists. (Bovaird et al. 2001: 4–5.)

Bovaird et al. (2001: 5) divide strategies that can influence levels of activism in civic society into three categories:

1. Intended actions, based on formalized strategic plan or at least a conscious decision-making process. The realization of these strategies is possible under certain conditions, but not in all situations.
2. Unintended actions which provoke positive actions by civic society. These strategies were never intended but are nevertheless seen as successful.
3. Unintended actions which provoke negative consequences. For instance, the closure of local schools or plans to build nuclear power plants can often trigger widespread local activism and demonstrations.

#### *Benefits and motivating factors of participation*

Participation has several benefits. In their study, Coenen et al. (1998: 7) rationalize participation, especially concerning environmental matters, with three factors. First, participation is suggested to be especially about empowerment, or learning democratic skills. Therefore, participation enables people to learn of the problems that society faces and how to interact with others that have different opinions or interests. Second, without participation, decisions taken will not be legitimate nor will they reflect the will and values of the people. Third, participation is suggested to be a tool for improving the quality of decisions – through participation extra information is added to the decision-

making process, and errors are detected. In addition, as illustrated in Figure 1, Savolainen (2007: 41) has studied the benefits of participation.

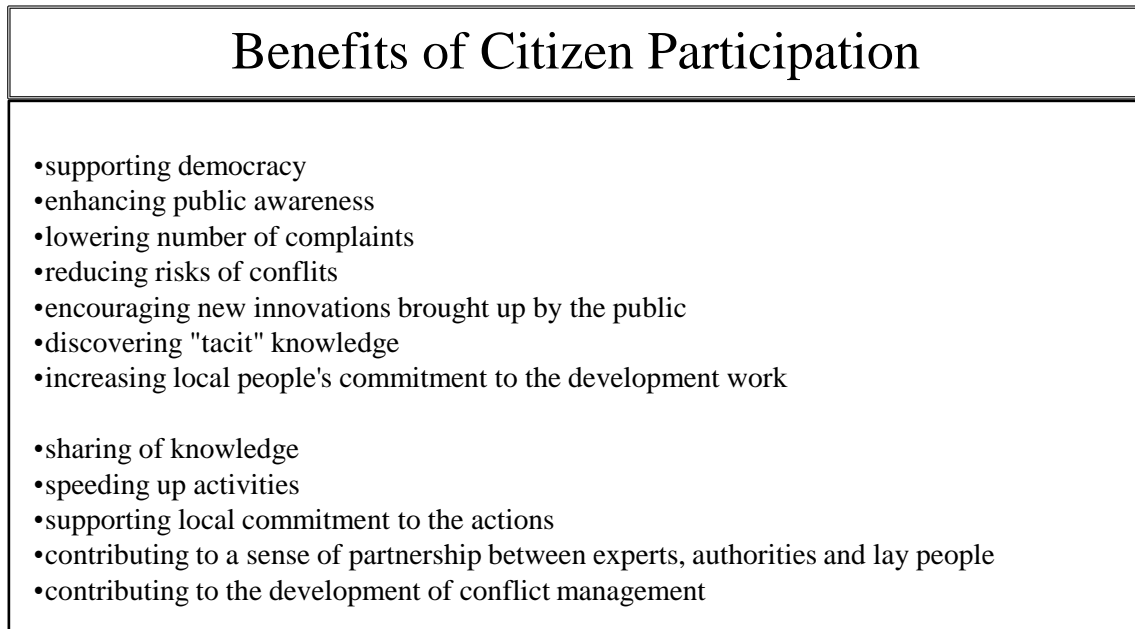


Figure 1. Benefits of citizen participation (Savolainen 2007: 41).

Citizens should not feel powerless in their contacts with the public administration (Salminen 2008: 1252–1253). It has been often emphasized that citizen's role and interaction with the administration is crucial. The main problem is, therefore, how to increase people's participation in running their own affairs? What are needed in the future are possibilities to new participation channels, citizen initiatives, and consultation and hearings in central and local organizations. Moreover, Saarelainen (2003: 39) suggests decision-making and implementation networks for guaranteeing democratic participation in public organizations and institutions. The networks can further democratic participation by bargaining processes in citizen's forums and panels etc., as it is already happening for instance in many environmental issues.

Phenomenon of 'not in my backyard (NIMBY) is quite common in decision-making

processes. It is used to describe people who support some proposal, but oppose implementing it in a way that would require sacrifice on their part. In general people support common interest when common interest is the same as their own individual interest. According to Niemi (2008: 53) the basic assumption is that rational individuals with their own interests in mind will not act to achieve the common or group's interests. It needs to be considered, then, what are the factors that make an individual act for a common good? There are two reasons for individuals to act for a common cause. First, the group of individuals is supposed to be quite small. Individuals can more easily find common interests in a small group than when acting individually or in a big group. Second, finding common interest is essential for common action. Furthermore, those who participate are generally those who have knowledge and education and who are wealthy. Those who participate go through three decisions. First, there is a decision whether or not to act to participate. Second, if action is taken, there is a decision about the direction of action. Third decision concerns the intensity, duration, and/or extremity of the participative action. However, in any case the decision to participate is the citizen's own and the government cannot force its citizens to participate. (Niemi 2008: 54.)

### 2.3. Ladder of citizen participation

Arnstein (1969) defines citizen participation as a synonym for citizen power. It gives the citizens a possibility to be included into the political and economic processes. By redistributing the power citizens join to determine how information is shared, goals and policies are set, tax resources are allocated, programs are operated, and benefits like contracts and patronage are split. Participation enables the citizens to give rise to significant social reform which enables them to share the benefits of the society. Arnstein emphasizes the critical difference between going through the empty ritual of participation and having real power needed to affect the outcome of the process. Participation without redistribution of power is an empty and frustrating process for the powerless. This way the powerholders are able to claim that all parties were taking into account, at the same time making it possible for only some of those sides to benefit.



Arnstein's popular "Ladder of Citizen Participation" helps to illustrate the matter. (See Figure 2.) The eight types are arranged in a ladder pattern with each level corresponding to the extent of citizen's power in determining the end product.

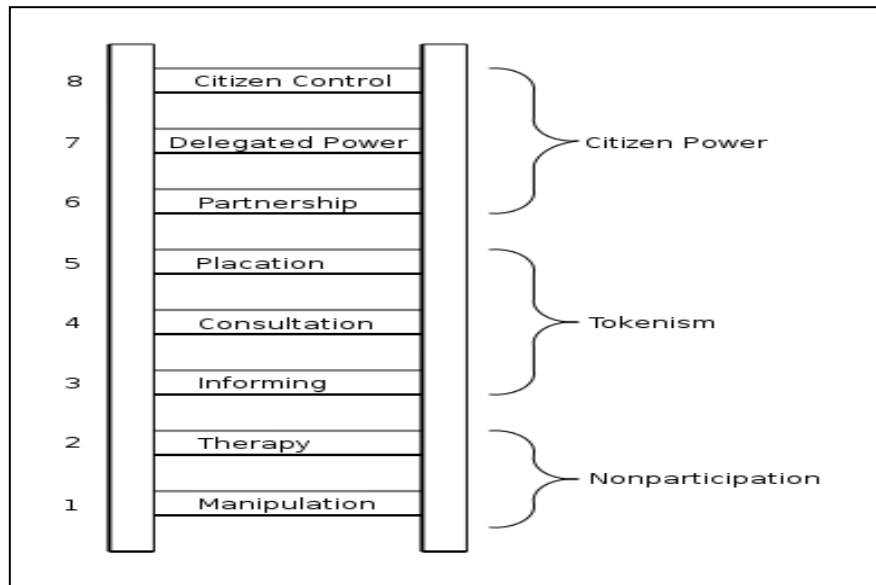


Figure 2. Arnstein's ladder of citizen participation (Arnstein 1969).

Manipulation and therapy represent "non-participation" that replaces genuine participation. They aim at enabling powerholders to "educate" or "cure" the participants, instead of enabling people to participate in planning or conducting programs. Levels three and four, informing and consultation, allow the public a possibility to hear and to have a voice. When citizens are able to hear and to be heard, they still lack the power to insure that their views will be taken into account by the powerful. Level 5, placation, allows the people to advice, but retain for the decision-makers the right to decide. Further up the ladder the citizen's possibilities for decision-making increase. Partnership (6) gives the public a possibility to negotiate and engage in trade-offs with traditional decision-makers. At the top level, delegated power (7) and citizen control (8), give the public the majority of decision-making seats, or full

managerial power. Arnstein (1969) underlines that even though the eight-rung ladder is a simplification, it helps to illustrate that there are significant gradations of citizen participation. Knowing these gradations makes it possible to understand the strong demands for participation from the public as well as the confusing responses from the decision-makers.

The ladder of participation does naturally include some limitations. First, it equates powerless citizens with the powerful to emphasize the fundamental divisions between them even though neither of them are homogenous groups. However, quite often the citizens see the powerful as a coherent system, and the decision-makers in fact view the public as a sea of “those people”, with little understanding of the class and caste differences among them. Second, the ladder does not include an analysis of the most significant barriers to achieving genuine levels of participation. For the decision-makers these obstacles include racism, paternalism, and resistance to power redistribution. For the citizens, the obstacles consist of inadequacies of the poor community’s political socioeconomic infrastructure and knowledge-base, plus difficulties of organizing representative and accountable citizen’s group in the face of futility, alienation, and distrust. Third, in actuality the levels of the ladder might be less sharp and lack pure distinctions. Furthermore, some of the characteristics used to illustrate each of the eight types might be applicable to other rungs. (Arnstein 1969.)

### *Manipulation*

The bottom rung of the ladder signifies the distortion of participation into a public relations vehicle by the decision-makers. People are placed on rubberstamp advisory committees or advisory boards to educate them or to get their support, instead of genuine participation. On the positive side, after being demeaned by the decision-makers, some citizens are demanding genuine levels of participation to assure that public programs are relevant to the public and responsive to their priorities. (Arnstein 1969.)

### *Therapy*

Arnstein (1969) sees group therapy, that he thinks is masked as citizen participation, as the most dishonest and arrogant rung of the ladder of citizen participation. He claims that mental experts, social workers and psychiatrists connect powerlessness with mental illness as synonyms. The public is subjected to clinical group therapy with the aim of curing them of their “pathology” rather than changing the racism and victimization that create their “pathologies”. This seems rather wrongful. The concept of mental illness is complex due to the experiences of students and civil rights workers facing guns, whips, and other forms of terror. To deal with their fears and to avoid paranoia help of socially attuned psychiatrists is needed.

### *Informing*

Arnstein (1969) considers information to citizens about their rights, responsibilities, and options as the most important first step toward legitimate citizen participation. In practice, the information is merely going from officials to citizens and the channel provided for feedback and power for negotiation is lacking. Therefore, particularly when information is provided at a late stage in planning, people have little opportunity to influence the program designed “for their benefit”. Examples of such one-way communication are the news media, pamphlets, posters, and responses to inquiries. In addition, providing superficial information, discouraging questions, or giving irrelevant answers are often tools for one-way communication.

### *Consultation*

Consultation is yet another step towards full citizen participation. It is not adequate though, it needs to be combined with other modes of participation for citizen concerns and ideas to be taken into account. Examples of methods for consultation are attitude surveys, neighbourhood meetings, and public hearings. When participation is stuck on this level, people are seen as statistical abstractions, and participation is measured by how many come to meetings, take brochures home, or answer a questionnaire. People

have then participated in participation and the decision-makers have gone through the effort of involving the citizens. Furthermore, attitude surveys are used frequently in ghetto neighbourhoods and the residents are increasingly unhappy about the number of times per week they are surveyed about their problems and hopes. Attitude surveys can be seen as invalid indicators of community opinion when used without other input from citizens. For one thing, respondents may not be aware of their options. (Arnstein 1969.)

### *Placation*

Going further up the ladder, at this level the people begin to have some, though not sufficient, degree of influence. For instance, a few poor are placed on such public bodies as the board of education, police commission, or housing authority. The problem may arise if the chosen are not accountable to a constituency in the community and if the traditional power elite hold the majority of seats, and hence the people can be easily outvoted. Another example of placation is the Model Cities advisory and planning committees. They allow citizens to counsel or plan but the right to judge the legitimacy or feasibility of the advice remains with the decision-makers. (Arnstein 1969.)

### *Partnership*

At this level of the ladder of citizen participation, power is redistributed through negotiation between citizens and decision-makers. Planning and decision-making responsibilities are agreed to be shared through for instance joint policy boards, planning committees and mechanisms for resolving impasses. It is not possible to change ground rules by a unilateral act after they are made. The partnership works most efficiently when three conditions are met. Firstly, when there is an organized power base in the community to which the citizen leaders are accountable to. Secondly, it works most efficiently when the public has the financial resources to pay its leaders reasonable reward for their time-consuming efforts. Finally, the partnership works when the citizens have the resources to hire (and fire) its own technicians, lawyers, and community organizers. When these conditions are in fact met, the people have genuine bargaining influence over the outcome of the plan. However, in most cases where power

has come to be shared it was taken by the people, not given by the city. This is not a new phenomenon though; those who have power want to hang on to it. (Arnstein 1969.)

### *Delegated power*

At this rung of the ladder the public holds the significant power to assure accountability of the program to them. In fact, citizens may achieve dominant decision-making authority over a certain plan or program in negotiations between citizens and public officials. In order to resolve differences, the decision-makers need to start the bargaining process rather than respond to pressure from the other end. In another model of delegated power the citizens have a veto right if differences of opinion cannot be resolved through negotiations. (Arnstein 1969.)

### *Citizen control*

There are increasing demands for community controlled schools, black control, and neighbourhood control. Degree of power, which guarantees that participants or residents can govern a program or an institution, ought to be in full charge of policy and managerial aspect, and be able to negotiate the conditions under which “outsiders” may change them. The model most often backed up is a neighbourhood corporation with no intermediaries between it and the source of funds. Unfortunately, community control is a controversial matter. It supports separatism, creates balkanization of public services, is more costly and less efficient, enables minority group cheaters to be opportunistic and scornful of the citizens, is incompatible with merit systems and professionalism, and it can turn out to be a new Mickey Mouse game for the citizens by allowing them to gain control but not allowing them sufficient dollar resources to succeed. In addition, every other means of trying to end public’s victimization has failed.

Information is clearly an essential part of participation. Political knowledge in particular predicts strongly with active political participation. The same perception of relation between knowledge and participation concerns participation in general. Highly educated citizens participate more often than those with lower education. Consultation is the next

step from information in Arnstein's ladder of participation. Improving citizen participation requires collaboration of several different actors. There should be active citizens, political decision-makers and administrative personnel, good and attractive procedures, and preparation and decision-making processes which may take direct participation into account. Open availabilities throughout the decision-making process are very important for citizen participation. In short, public involvement should be included to decision-making processes from A to Z. (Niemi 2008: 64–65.)

For participation to work, The World Bank (1996: 189–190) has developed twelve basic steps for participation projects. The model is more practical than Arnstein's ladder of participation. The steps support the creation of real participation. All the different stakeholders are included in the project from the beginning to the end. The steps are arranged in a way that earlier steps help a team build up identity and later steps help them take action.

1. *Opening round.* Discussion about the expectations for the water restoration group.
2. *Clarify representation.* The interests and roles of different stakeholders are specified.
3. *Set norms.* Rules are set up in order for all team members to have common expectations of how they can most effectively work together.
4. *Identify client.* The object, which will benefit most from the goals of the project, is established.
5. *Review history.* Exercise for team-building to ensure that everyone at the meeting has equal footing.
6. *Define mission.* What is the team's mission of the project?
7. *Define deliverables and assumptions.* The end products and necessary conditions in relationship to overall impacts are appointed.
8. *Clarify work plan.* Team members define steps to move the project from idea to action.
9. *Define roles and responsibilities.* The team is prepared to take action by firming up how the work is clarified. People are encouraged to identify specific tasks and take responsibility for following through with those tasks.

10. *Define learning system.* The team reviews what they have done and how the team has worked together.

11. *Establish budget.* The team reviews the work plan and systematically attaches costs to each activity in the plan.

12. *Implement and improve.* The conviction and wisdom of the team's plan is put to a series of tests. Finally, a plan for future projects is set out.

This is a workshop-based method for improving both the substance and process of project cycle management. These series of steps are developed in order to enable a group of individuals to perform essential management functions collaboratively.

#### 2.4. An example of creating participative governance: Botnia-Atlantica programme

An important part of this study is a programme aiming for cooperation between officials and citizens in stream restorations. It is a Botnia-Atlantica programme called "Rinnande Vatten i Kvarken" (Running Waters in the Gulf of Bothnia). Financiers of the programme are Botnia-Atlantica, Länsstyrelsen Västerbotten and Regional Council of Ostrobothnia. It is a collaboration programme in which different actors from both sides of the Gulf of Bothnia are participating. South Ostrobothnia's Centre for Economic Development, Transport and the Environment is the main actor of the partners in cooperation. The aim of the programme is to exchange experiences and information over the Gulf of Bothnia concerning the state of stream waters and possibilities to better the state of waters. In addition the goal is to develop cooperation models, so that the function of brooks as rich environments for fish and other organisms could be restored.

#### 2.5. Limitations of citizen participation

Despite the genuine efforts to make citizen participation easier, citizens are not necessarily empowered. According to Newman (2005: 130) there are many fundamental contradictions in public participation, for instance: enhanced political interest but public dissatisfaction; official priority but very limited achievements and resourcing. The

problem could arise from participatory mechanisms merely comprising extensions of existing practices, whilst being underpinned by the same elitist and functionalist philosophy. Blakeley (2010) sees two factors behind the encouragement of public's participation. The first one is that it has become important for governing individuals to exercise their agency in a responsible and rational manner. That is, ideas of community and active citizenship operate as strategies, enabling the state to govern more effectively. Second statement is that, if power is seen as working through the exercise of freedom and agency, it can be understood that an increase in citizen participation, when facilitated by government, does not necessarily lead to an increase in citizen empowerment. This way, public participation can enable individuals to exercise freedom and agency while simultaneously being an effective means of social regulation and control.

Blakeley (2010) compares encouragement of citizen participation by those in power to such paradoxical commands as 'be spontaneous!'. Blakeley argues that these are comparable because they are two mutually exclusive political projects. They are not, as at least the previous should be, one continuous project which reaches up to the state and down to the grassroots. In other words, because of the fact that participation is characterized by top-down control, participation can become a means of controlling citizens rather than empowering them. As a conclusion, the more citizen participation becomes public policy, the less likely it is to empower citizens.

Blakeley (2010) mentions three reasons for the fact that citizen participation does not necessarily empower citizens. First, the nature of participation is conditioned by mobilizing citizens around local government projects. Second, participation can act as a mechanism of control since its predominant role of local governments in facilitating certain kinds of mechanisms and spaces for participation. In fact, providing mechanisms and spaces of participation may become a burden for some people rather than an opportunity, especially when the burden is predominantly placed on communities which are already multiply disadvantaged. Finally, citizen participation can become the only option, a realist view of the world to which any alternative is difficult to imagine. It ought to be remembered, that citizen participation should not result to populist city-wide



unity in which government, the private sector and citizens are all exhorted to work for the same team while ignoring the persistence of inequalities based on class, gender and race. Blakeley (2010) argues that producing consensus in this way can become ‘the principal means of legitimizing domination and of co-opting potentially critical citizens’. This kind of organized populist consensus is problematic in a context where inequalities remain significant.

Newman (2005: 130–132) agrees with Blakeley on the problem of public participation overruling individual needs of citizen’s. Public consultation is thought to lead to services that are attuned to individual preferences, not to ‘one size fits all’ products of the post-war welfare state. Moreover, according to Salminen & Lähdesmäki (2010: 20) both the Finnish administrative welfare state and the new public management models can be criticized for creating faceless mechanisms that are insensitive to the needs of the public. However, in order to deal with questions of difference, the citizens have to model a differentiated entity so that the public can be included in appropriate categories.

There are three assumptions in including citizens to categories. First, people are assumed to be neatly divided into mutually exclusive groups: young or old, black or white, employed or unemployed, residence and other factors. Second, the troubling question of representation and representativeness arises. This means that people are invited to collaborate in participation on the basis that they are somehow representatives of a wider public defined by a special set of characteristics. The problem is that the idea of representation is fluid and unstable. In addition, individuals tend to be invited to participate on the basis of such characteristics as age, class or gender in order to secure a representative sample of a wider population. As such, more collective or politicized voices are excluded. Third, the process tends to assume a community of interests or identity among a particular group – for instance the homeless, lone parents, unemployed. The problem is that the process of categorization has the tendency to construct problems concerning the property of the group rather than of the wider social or political system. (Newman 2005: 130–132.)

To conclude, the last word should rest with the citizens themselves. It is the local people

that are the real judges of participation in their localities. They are aware of the possibilities participation affords them as well as the limitations it imposes. According to a study on local participation (by a team of researchers from Barcelona Autonomous University), the majority of people interviewed evaluated citizen participation in Barcelona positively, despite recognizing key difficulties. The interviewees felt their participation did make a difference, however small that difference might be.

### 3. THE BACKGROUND OF WATER GOVERNANCE

#### 3.1. International water governance

##### *The new European Union Water Framework Directive*

Water is a precondition for all life – human, animal and plant, as well as a binding resource for the economy. Water also plays a fundamental role in the climate regulation cycle. According to the European Commission (2010) protection of water resources, of fresh and salt water ecosystems and of the water we drink and bathe in is therefore one of the cornerstones of environmental protection in Europe. The new European Water Policy was created as a response to the increasing demands by citizens and environmental organizations for cleaner lakes and rivers, groundwater and coastal beaches. For instance, a Eurobarometer opinion poll showed that of the average for the 25 EU countries nearly half of the respondents are worried about “water pollution” (47 per cent), with figures for individual countries going as up as 71 per cent. Therefore, the Commission has made water protection one of the priorities of its work. The goals with the new European Water Policy are to get polluted waters clean again, and to ensure clean waters are kept clean. The goals are presented in Figure 3. It is extremely important to encourage citizens and citizen’s groups to become more involved since their role will be essential.

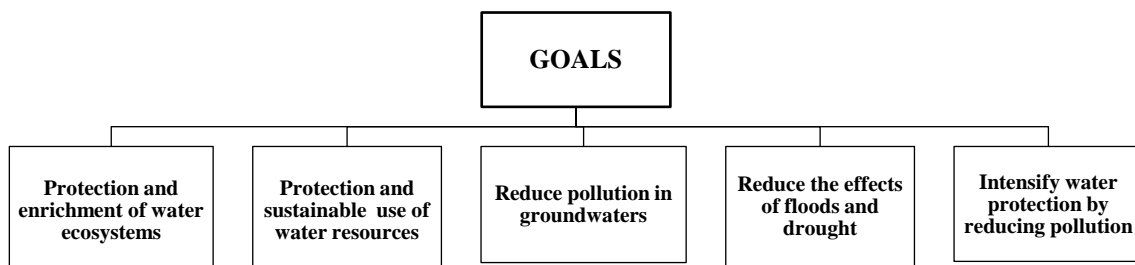


Figure 3. The goals of EU’s water policy.

The role of the public and public groups is crucial when cleaning our common waters. Why is it important to encourage public to participate in getting our waters clean? One of the reasons is that balancing the interests of various groups is needed to make decisions concerning the river basin management. It is not enough that there will be an economic analysis to rationalize the cleaning of waters, but more important is that the decision-making process is open to those who will be affected. In other words, citizens need to know about decisions concerning water management that will affect them, and in particular, citizens need to be able to have an effect on the decisions concerning these waters. A second reason is connected with enforceability. Transparency is considered to be an important measure in the process of cleaning waters. Transparency is needed in the establishment of objectives, the imposition of measures, and the reposting of standards. These have a direct impact on the implementation of legislation in good faith by the Member States and on the power of the citizens to influence the direction of the environmental protection. (The European Commission 2010.)

Citizen's influence can be in the model of consultation or through the complaints procedures and the courts. However, it can be said that the current participation of the public in the area of caring for water is not enough, and more involvement of citizens, interest parties and non-governmental organizations (NGOs) is required. For this to work, the plans for river basin management require information and consultation from all the parties involved. To this end, the river basin management plans must be issued in draft, and the background documentation on which the decisions are based on must be made accessible. The Water Framework Directive will require information and consultation when river basin management plans are established. Also, it is required that a biannual conference should be organised. In this conference regular exchange of views and experiences in implementation will be made possible. This way the examination of the implementation will be ensured to happen. (The European Commission 2010.)

Water protection has not been in the "to do-list" for that long time. Even so, a great deal of progress has been made in this area in Europe. However, Europe's waters are still in need of increased efforts to get them clean or to keep them fresh. After 30 years of

European water legislation, this demand is expressed, finally not only by the scientific community and other experts, but to an ever greater extent by citizens and environmental organisations. Everyone ought to take part in the challenge of water protection, which could be said to be one of the great challenges for the European Union in the new millennium. This challenge is answered with two tools; (1) getting Europe's waters cleaner and (2) getting the citizens involved. (The European Commission 2010.)

### 3.2. Water governance in Finland

Protection of waters and the scarceness of water resources have become important environmental issues in the last decades. The results of water protection efforts in Finland have been good, but there is still a lot to do to improve water quality and to develop the management of water resources. In many other parts of the world, especially in developing countries, the situation is steadily getting worse. Climate change, more frequent extreme weather phenomena and population growth are challenges for the entire humankind. We must find new local and global solutions to water issues. (Finnish Environment Institute 2009.)

#### 3.2.1. Law's concerning waters in Finland

There are three levels of written laws which affect the use and protection of nature. First level is international level, for instance directives of the European Union. Second level of law is constitution. This includes both environmental protection in land with private ownership, and land owned by the government. Local environmental centres take care of the first and the Finnish Forest and Park Service the latter. The constitutional level of law dictates the terms for lower levels of court institutions. In addition to these three institutional levels of law, there is common law. At the constitutional level the basic idea is that nature is valuable and that it should be respected and protected. The presumption is that everyone acquires this idea and takes care of their immediate surroundings in a gentle way. In communities where reliance upon the nature is remarkable and fishing and hunting have an important role, this constitutional basic idea is strong. It is quite

common that a conflict occurs when officials announce the local users to be incompetent to take care of their district and to protect it even though local inhabitants have a long experience that ought to be acknowledged. (Sandström 2008: 135–137.)

Protection of waters begun to develop in the 1960's in Finland, when Water Act (1961/264) came into force. The law forbade shutting, changing, or spoiling of waters without permission. (Penttinen & Niinimäki 2010: 146.) Figure 4 helps to discern water- and environmental legislation in Finland.

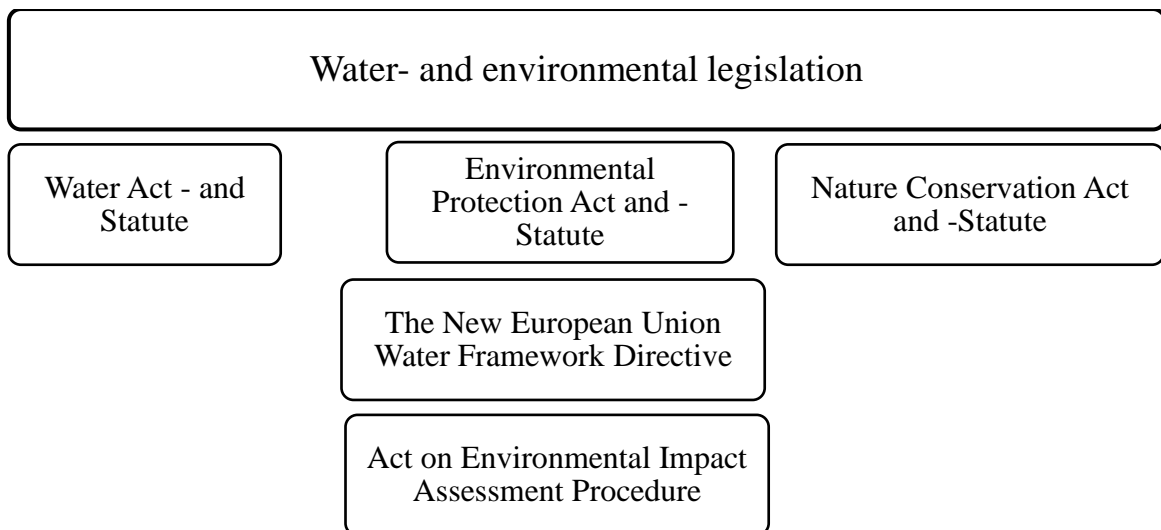


Figure 4. Legislation connected with water and environment in Finland (Penttinen & Niinimäki 2010: 147).

Finland's environmental administration is managed by Ministry of the Environment and Finnish Environment Institute. Finnish Environment Institute, Centres for Economic Development, Transport and the Environment and Regional State Administrative Agencies manage water governance in Finland (see Figure 5).

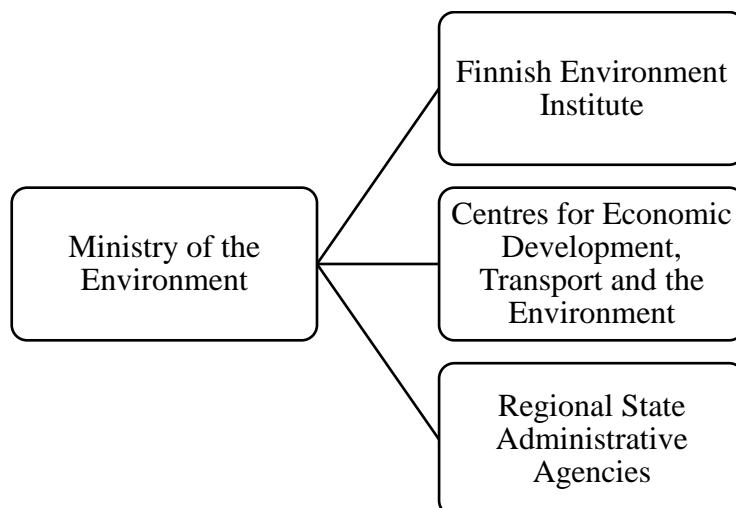


Figure 5. Water governance in Finland.

### 3.2.2. Finnish Environment Institute

The Finnish Environment Institute (SYKE) is involved in water governance and supporting water protection and water resources management by multidisciplinary research, by collecting information and by developing assessment tools and sustainable solutions to issues of water supply, wastewater treatment especially in scarcely populated areas, hydraulic construction, and utilization of water resources. It is also responsible for the monitoring and assessment of the quantitative variations of water resources, and the status of surface and ground water bodies and various biological variables. The Finnish Environment Institute applies a holistic perspective in examining changes in the status of waters. Among the most frequently used information services of the Finnish Environment Institute are the nation-wide hydrological reports and forecasts. (Finnish Environment Institute 2009.)

### 3.2.3. Centres for Economic Development, Transport and the Environment

There are 15 Centres for Economic Development, Transport and the Environment (ELY-Centres) in Finland. In general, they are tasked with promoting regional competitiveness, well-being and sustainable development, as well as curbing climate

change. Concerning water management, the centres promote the good condition and usability of waters by providing expert assistance in their restoration and participating in the planning and implementation of projects together with municipalities, other officials and those carrying out the restoration projects. Furthermore, they ensure flood protection and prevention, for example by steering construction outside flood risk areas. The Centres for Economic Development, Transport and the Environment supervise and steer the regulation of inland waters so that water levels and flows correspond to the objectives set for water use and the state of the environment. They also ensure the safety of dams. Municipalities are responsible for the general development and arrangement of water supply. ELY-Centres are responsible for monitoring the water supply, steering related planning, and steering financial support within their own areas. (Centres for Economic Development, Transport and the Environment 2011.)

#### 3.2.4. Regional State Administrative Agencies

There are six Regional State Administrative Agencies whose tasks consist of those of the former state provincial offices, occupational health and safety districts, environmental permit agencies and regional environmental centres. There is close collaboration between Regional State Administrative Agencies and local authorities. The agencies strengthen implementation of basic rights and legal protection, access to basic public services, environmental protection, environmental sustainability, public safety and a safe and healthy living and working environment in the regions. Their responsibilities cover five divisions:

- Base public services, legal rights and permits
- Occupational safety and health
- Environmental permits
- Fire and rescue services and preparedness
- Police. (Aluehallintovirasto 2011.)

The Regional State Administrative Agencies are responsible for managing environmental permits, for instance water permits. According to Finland's water legislation, water permits are required for all activities affecting constructions in waters



or the water supply. These activities include for instance the construction of jetties, bridges, cable crossing, pipelines, dams, hydropower plants, waterways, log-floating routes, drainage ditches, canals, weirs and sluices, and for any other regulation use of water reserves, including groundwater. (Environmental Administration 2011.)

### 3.3. Water governance in Sweden

The government, the County Administrative Board, the Swedish Forest Agency, and Environmental Court of Justice and few other officials, like the Geological Survey of Sweden, manage water governance in Sweden. In general, the means of reconditioning water areas are well developed in Sweden. The work around lakes and waters is mainly guided by 16 national environmental goals. Used ways of protection are mainly enacted in law, especially in “the Book on the Environment” (Miljöbalken). To achieve environmental goals vast co-operation and various working methods are needed. Figure 6 demonstrates laws and officials connected to water issues in Sweden.

Swedish "water laws" and authority		
ENVIRONMENTAL CODE: -Forestry act -Road act -Railway act -Fishing act -Civil Protection act  -Water & Sewage act -Plan & Building act	-SEPA -Government -Agriculture Board -Courts -Municipalities -Forestry board -County Adm. boards -Planning board -Rescue agency -Road Adm. -Fishing board -Railway Adm.	-Water associations -Landowners -Water right owners -NGO's

Figure 6. Water governance in Sweden (Länsstyrelsen 2011a).

### 3.3.1. The County Administrative Board

The County Administrative Board (Länsstyrelsen) is a government authority which is aimed to be close to the people in each county. It is an important link between the people and the municipal authorities on the one hand and the government, parliament and central authorities on the other. The County Administrative Board ensures that the regional environmental objectives and environmental objectives decided by the Government and by Parliament are implemented in the county. This is done together with the municipal authorities and various sectors in society which are also responsible for the environment. The County Administrative Board monitors and analyses the state of the environment in the county. It also provides advice in the work of the municipal environmental authorities and follows up and evaluates their work. The nature conservation work done by the County Administrative Board is aimed at preserving the county's natural and cultural landscapes and the biological diversity linked to each landscape. (Länsstyrelsen 2011b.)

Water operations are activities that change the depth or location of the water, drain land, channel away groundwater or increase the volume of groundwater by adding water. To ensure safe, long-term water use, a permit is required to conduct water activities. Concerning water management, the County Administrative Boards deal with applications for land drainage. Moreover, the County Administrative Board is the supervisory authority for water operations, and therefore the consultant for water permits. Sweden is divided into five water districts with a water authority in each district. The water authorities have been designated from the County Administrative Board in each water district. These water authorities deal with the quality of the water environment within the district. The water authorities have overall responsibility for ensuring that the new European Union Water Framework Directive is implemented in Sweden. (Länsstyrelsen 2011b.)

### 3.3.2. Environmental Court

In order to carry on water operations you must have a permit. The Environmental Court

(Miljödomstol) deals with applications for water operation permits. It also works with cases brought by reason of disputes under the Book on the Environment (Miljöbalken). There is a High Court of Justice for the Environment (Miljööverdomstol), the decisions of which can be appealed to the Supreme Court. (Länsstyrelsen 2011b.)

### 3.3.3. The Swedish Forest Agency

The Swedish Forest Agency (Skogsstyrelsen) is the national authority in charge of forest-related issues. Its main function is to promote the kind of management of Sweden's forests that enables the objectives of forest policy to be attained. The forest policy has two main objectives: production goals and environmental goals. The Swedish Forest Agency has a variety of tools to attain the goals of the forest policy, such as provision of advice and information, routine controls to monitor the compliance of statutory requirements, and administering subsidies to forest owners. The Swedish Forest Agency aims at increasing general knowledge on all the benefits our forest ecosystems provide, and the important role of natural environments for recreation and public health. (Skogsstyrelsen 2011.)

### 3.3.4. The Geological Survey of Sweden

The Geological Survey of Sweden (SGU – Sveriges Geologiska Undersökning) is the expert agency for issues connected with bedrock, soil and groundwater in Sweden. It gathers and supplies basic geological information and expert which is used for physical planning, construction works, drinking water supply, environmental issues and as a basis for decision-making. (The Geological Survey of Sweden 2011.)

Swedish Parliament has adopted 16 national environmental quality objectives. According to Länsstyrelsen Västerbotten (2010) the 16 environmental- and water quality goals include among others a groundwater of good quality, living lakes and waters, balanced ocean and living coast and archipelago, abuzz wetlands, no eutrophication, non-toxic nature, lively forests and abundant flora and good water quality and state in general. The aim is to solve the country's main environmental

problems within one generation. The Geological Survey of Sweden is responsible for the national environmental quality objective Good-Quality Groundwater. The aim of this particular objective is to ensure that future generations, too, have access to groundwater that provides a safe and sustainable supply of drinking water and contributes to viable habitats for flora and fauna in lakes and watercourses. The Geological Survey of Sweden is also engaged in issues involving several other environmental quality objectives. (The Geological Survey of Sweden 2011.)

Efforts to achieve these 16 national environmental quality objectives are closely linked to implementation of the European Union's Water Framework Directive and Groundwater Directive. The starting point to achieve the objectives is co-operation; all different sectors of societies are involved and take responsibility of waters. (Skogsstyrelsen 2010: 2.) All the co-operation sectors must be involved, take responsibility of water questions, and the co-operation between the actors must lead to efficient ways of working, in which everyone can influence in. (Skogsstyrelsen 2010: 9.) Moreover, the continuation of volunteer action has a great significance. Co-operation and participation should be developed to be even better, for instance by making better opportunities and forums for interaction and by developing co-operation and participation to be even better by prioritizing the use of existing strategies. (Länsstyrelsen Västerbotten 2010.)

#### 4. SMALL WATER RESTORATIONS AND CITIZEN PARTICIPATION

*“Every person has the right to live in a healthy environment and the obligation to protect the environment. To assert this right and meet this obligation, citizens must have access to information, be entitled to participate in decision-making and have access to justice in environmental matters.” (Aarhus Convention 1998.)*

According to the Rio Declaration on Environment and Development, environmental issues are best handled with the participation of all concerned citizens, at the relevant level (United Nations Environment Programme 1992). At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. (The United Nations 2000: 12.)

##### 4.1. Theories about people’s behaviour concerning environmental matters

Studies have shown that attitudes affect people’s behaviour as much or even more than knowledge (WWF 2009: 16). Grob’s model (Figure 7) illustrates this connection between attitudes and environmental behaviour. Grob’s model shows, in addition to attitudes and perceived control aiming for environmental friendly action, even relation between environmental knowledge and environmental behaviour.

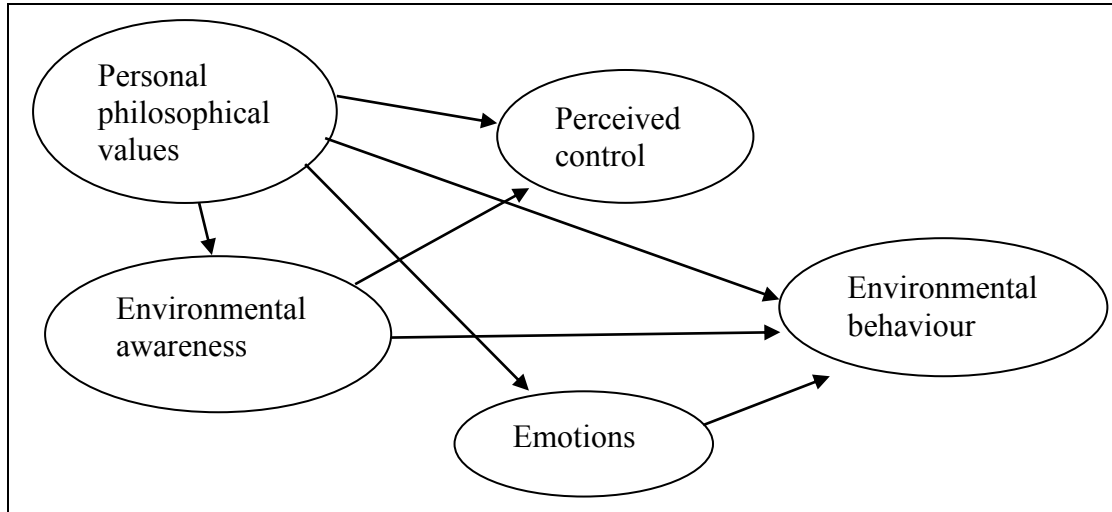


Figure 7. Connection of environmental-related behaviour and attitudes (Grob 1995: 209).

*The environmental awareness factor* consists of factual knowledge about the environment and recognition of environmental problems. The assumption is that the more conscious people are about the state of their environment, the more appropriately they will act. That is, firstly, the more people know about their environment, the more appropriately they will behave. Secondly, the more people recognize environmental problems, the more appropriately they will act. (Grob 1995: 209–211.)

*The emotion element* includes the emotional value which the individual places on aspects of the environment and the disturbance resulting from his or her perception of the conflict between ideal and actual environmental conditions. As a consequence, it is first assumed that the more intense the emotions with which people react to a worsening state of the environment, the more accordingly they will act. Second, the model assumes that the more disturbed an individual is by the conflict between ideal and actual actions, the more appropriately he will act. *The personal-philosophical element* includes post-materialistic beliefs and readiness to adopt new attitudes. It is assumed, first, that the more materialistic a person's values, the less appropriately he will behave towards the environment. Second, the more creative a person is in solving problems, the more appropriately he will behave. (Grob 1995: 209–211.)

*The perceived control factor* involves beliefs about the efficiency of science and technology and beliefs about self-efficacy. It has been hypothesized, firstly, that persons who associate the causes of the environmental state to their own actions will act more accordingly to the environment than those who attribute the causes to external influences such as natural law, chance or society. Secondly, the less people believe in technological solutions to environmental problems, the more appropriately they will behave. Finally, *the behaviour factor* consists of direct actions that impact the environment. The assumption is that personal-philosophical values affect in addition to behaviour, also the other three attitudinal factors. The model also assumes a direct effect from environmental awareness to perceived control. (Grob 1995: 209–211.)

According to Valtonen (2010), when environmental issues are concerned, coercion is needed to get real action. Valtonen says that when decisions are made for people, they will not complain. But when they have to act themselves, they are lazy and ineffective. Important changes that have an effect on energy efficiency should not therefore be left on people's own activity, because people often postpone making these changes. For instance, when an electric-company in Germany offered customers a possibility to change to more sustainably produced electricity, merely one per cent of the consumers carried out the change. The problem was that the transfer required activity from the customers. In fact, when the electricity contracts were changed to more environmental ones without asking permission, and the customers were given the possibility to change back to the old system, 94 per cent accepted the change. In addition, since we are social beings, we are affected by what others do. Studies show, that people decrease their consumption of energy when they know that their neighbours are doing so. In conclusion, people consider changes odd, especially if these changes involve effort or costs. As gregarious animals, however, we are ready to change our habits, if we see others doing so.

#### 4.2. Water restorations

The interest of this study is on small waters. Small waters include streams, ponds,

rivulets and springs. Streaming waters such as rivers, and also lakes, have had and still have a significant role in the northern way of life. Finland, in particular, is a land of waters, forests and swamps. Exploitation of these natural resources has had an important influence to our country's development into an international welfare state. The society needed food, energy and raw material. Therefore watercourses have been used for several purposes: transportation, in supplying drinking water, as sources of energy, as fishing grounds and places of recreation. As a consequence, these waters have been utilized vastly, and therefore human impact on this natural resource is remarkable. Looking afterwards at this perhaps positive development for human society, it has had many negative effects on our country's nature. On the other hand, from 1970's onwards such a living standard was accomplished, that the citizens have been able to aim for better living quality. At the same time we have been offered a chance to help our damaged stream waters. (Savolainen 2007: 126; Eloranta 2010: 9.)

Over 200 years majority of our stream water nature has been changed. Among these human-induced changes that have caused many harmful effects are dredging, damming, canalization, ditching, digging, loading, regulating water level, building different constructions and filling of the watercourses. In Finland the main loaders of inland waters are forest industry, agriculture, municipalities, fish farming, forestry and drainage of swaps, sparsely populated settlements in rural areas and atmospheric deposition (see Figure 8.). There are many harmful effects on our water ecosystems due to severe exploitation. These negative impacts include:

- the habitat and flow pattern have been simplified
- natural landscape has been changed
- terrestrial-aquatic linkage has weakened
- retention capacity has decreased
- the pool-riffle-sequence has been broken
- recreational use has become more difficult.

Due to the various negative impacts on water habitats different corrective measures are needed. (Savolainen 2007: 126–139; Eloranta 2010: 9.)



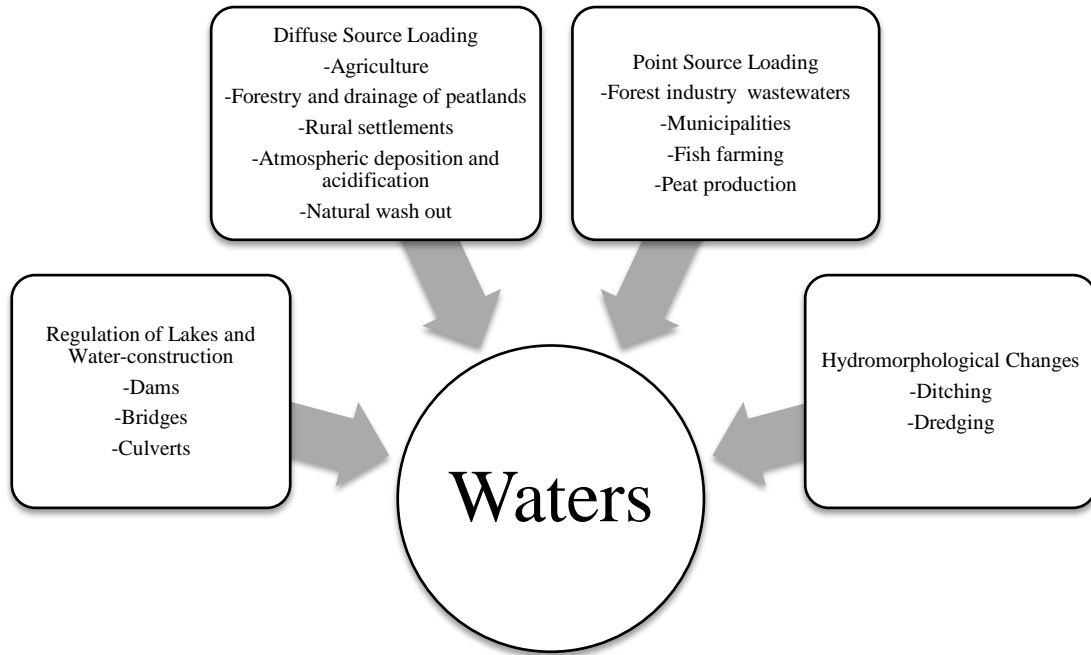


Figure 8. Pressures on water habitats (Savolainen 2007: 128).

The dismal state of our water nature was realized in the 1970's. It was then that our valuable stream water nature was seen to need protection and care. At the same time people became aware of the fact that even damaged environments should be helped. Water restoration is a part of this water construction activity, with which damaged streaming waters are structurally and functionally restored closer to the state before human action. The ongoing century is predicted to be the century of environmental restorations. Majority of the initiatives made to environmental officials concern water restorations. The need for restorations has obviously grown and streaming waters are among the most endangered ecosystems in the world. Exploitation lasting for current centuries has destroyed, damaged or changed their natural state. (Eloranta 2010: 6.)

### *Planning water restorations*

Water restoration is usually action aiming at clearly making water's current state better. Water care can, however, be determined as maintaining water's good state (Penttinen & Niinimäki 2010: 214). Water restoration can be defined as returning to the natural or undisturbed state of the water ecosystem. The goal is to make the result as close to the

former natural state as possible, even though the exact natural state cannot be achieved. The aim is often to improve ecosystem's structural and functional diversity to create optimal nursery habitat for fish. Increased habitat diversity is in turn expected to increase biological diversity. While restoration is an active, non-renewable and a relatively massive measure, its management is a continuous action, based on a relatively small one-time effort. The objectives of restorations are usually ecological, recreational, scenic and conservational. Typical means of restorations are for instance building of spawning ground and hiding places for the fish, diversification of water flow and depth conditions, building of different fish ways and by-passes and reconnection of drained parts of the water channels. Figure 9 illustrates steps of water care in Finland. (Savolainen 2007: 140–142; Louhi, Mykrä, Paavola, Huusko, Vehanen, Mäki-Petäys & Muotka 2011: 1951.)

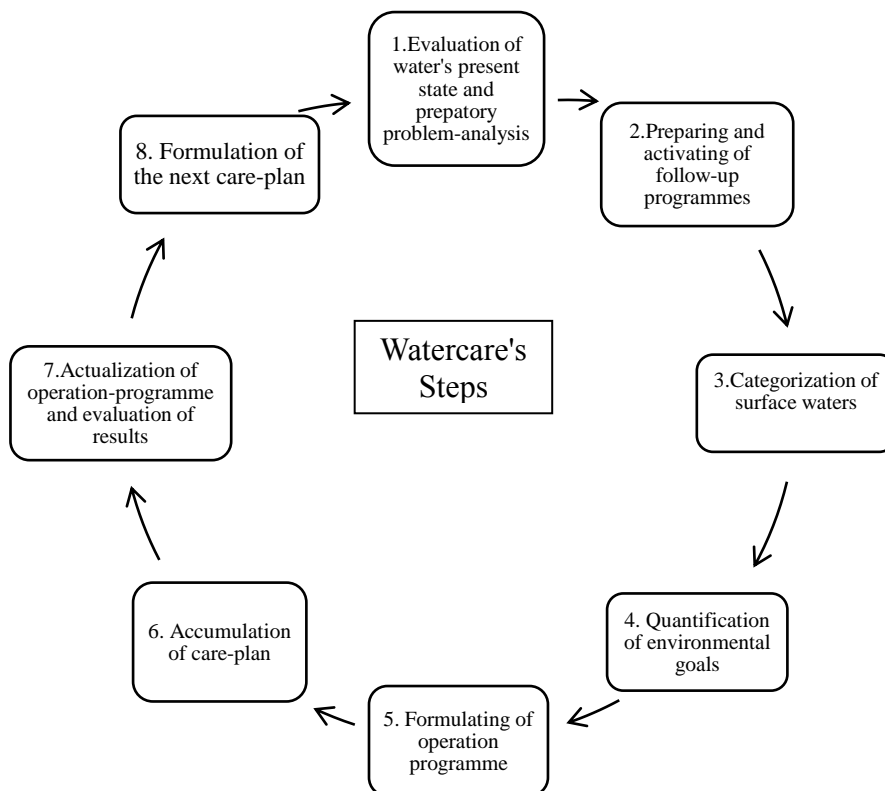


Figure 9. Watercare's steps in Finland (Mäkinen 2005: 55).

### 4.3. The public in small water restorations

The World Bank (1996: 3) defines participation as a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. In small water restorations, co-operation of several actors is needed. Different stakeholders in water restorations can be for instance public groups, municipalities, state and the European Union. (Ympäristöministeriö 2009: 2). Moreover, the main precondition for these restorations to succeed is the citizen's activity and their will to participate, since there is never enough public funding for these projects. Restorations are usually mainly done as voluntary work, so it is important to get public groups, for instance the local inhabitants and summer cottage owners, to participate. Landowners are in an especially important part, particularly since their permission is necessary for restorations to happen. It is the citizens that often initiate the projects, take responsibility of them, and start the planning for restorations together with other inhabitants. Voluntary work usually happens in the form of practical execution, getting permissions, and gaining acceptability for the restoration projects. One thing to remember is to inform about the restorations and to keep solid interaction between different actors active, since it will spread the project's acceptability and engage people with them. (Mäkinen 2005: 4; Jormola, Keto, Lehtinen, Marttunen & Wahlgren 2006: 10.)

According to Savolainen (2007: 347–348) good communication – both internal and external – is needed for a successful restoration project. The participative approach in all restoration projects, in all their phases, is essential. Moreover, participation of a wide range of people is important in all phases of the project – from the planning and application phase to the practical implementation and the final phases. It helps in at least four ways, first in including all group's views and knowledge. Second, it helps in developing a joint understanding of and view about the development needs, objectives, actions and activities of the project. Third, participation of a wide range of people helps in developing trust and confidence between partners. Fourth, it helps in laying the basis for sound and productive working relations.

Björkell (2008: 138) agrees with Savolainen, emphasizing the importance of citizen's possibilities to opinions and influencing. Opinions include that the process is transparent and that the local inhabitants have a clear idea about why the process is realized, who will participate, what are the different stages that are gone over and what are the aims of the project. Moreover, officials should lay their cards on the table and give local inhabitants a possibility to see and understand what is done, and give inhabitants a possibility to have their own opinions. The fact that offering the citizens possibilities to declare their own opinions generally increases the project's acceptability and can motivate the officials to offer this possibility. Influencing means that the local inhabitants not only have a chance to see and understand what the process includes, but also have a chance to influence it and its outcome. The participant's role is therefore large.

Timing is everything even with citizen participation. According to Somrudee Nicro, Surojit Dass & Prin Visavakum (2002: 36–37) it is widely recognized that timing or the stage at which public involvement was initiated is considered crucial to the success of the public participation process and the gaining of public acceptance. However, this knowledge has not been used in practice, since public involvement is usually initiated only later in the processes. Public access to information is enhanced as an important part of making the project successful. Project's trust and acceptability increases with public access to information. Eventually it will lead to two-way communication and can serve as an important tool for encouraging participation in local governance.

#### 4.4. Ways to enhance public's participation in water restorations

Since it is essential to get citizens and citizen's groups more involved in small water restoration projects, what tools could be used to motivate them? What stimulates participation? International Association for Public Participation (2000) has gathered up a Public participation toolbox for this purpose, which contains both passive and active public information techniques and public input techniques for small and large groups. In the passive techniques list there are for instance printed public information materials

(e.g. newsletters), feature stories, technical reports and newspaper inserts. Among active techniques are briefings, technical assistance, expert panels, field trips and community fairs. These are all usable in encouraging people to small water restorations. In addition, mailed surveys and questionnaires are listed as large group techniques, which have been used to find out people's attitudes towards small water restorations. Different channels that can be used as tools for participation are: general elections, referendums, mass communication, political associations, workplaces, schools and educational institutes, civic organizations and movements. (Niemi 2008: 66.)

According to Rotko and Lyytimäki (2004: 32), one of the factors that motivate people to small water restorations is the communality that arises from them. Enthusiasm can be promoted by arranging common events, such as expeditions. Community spirit is the most important and exhilarating factor in the projects that succeed the best. In those projects acting to gain a certain goal was experienced entirely positively. Community spirit between the citizens can be created with open interaction, by offering real chances to influence and by making the action meaningful. In addition, people's attitudes towards small water restorations can be influenced in different ways. This can be done with the tone of local news reports and by noticing the positive changes in the water areas. It is important to inform actively to everyone even about small, positive results achieved from the restorations. Savolainen (2007: 349) also believes in positive motivating. In promoting environmental protection, better way is to motivate people with positive incentive than to punish them.

Social capital can be helpful in realizing restorations, because voluntary work and cooperation between different actors can compensate for some of the financial recourses. Social capital means social relationships which enable organized action for realizing desired goals (Rotko & Lyytimäki 2004: 50). According to Mäkinen (2005: 77) social capital grows by getting to know each other and by working together. When social capital is strong, interaction is open, supportive and influential. Then project's planners are genuinely interested about the participant's opinions and take them into consideration in the planning phase. One of the major challenges in restoration projects is to create communality. It can be created for instance by emphasizing locality,

organizing side activities (among others jig-competitions) or by building a shared story for the water area (Rotko & Lyytimäki 2004: 52–53). Saarelainen (2003: 240–241) lists different sources of social capital which are used in communities: community forums, shared interest forums, issue forums, public meetings, question and answer sessions, citizen panels and community plan/needs analysis. As consequences of social capital Saarelainen mentions for instance increased effectiveness of the intermediation of information, increased social support and better coordination between actors.

Furthermore, citizens could be more motivated to small water restorations if they knew more about the benefits of these restorations. According to Savolainen (2007: 349) people do not completely understand what affects water quality. For instance, activities and influences in catchment level are not clear. In addition to ecological benefits, small water restorations have social and financial benefits. Water restorations are seen as useful and also monetarily sound projects. Water restorations are also essential in achieving the targets of the EU Water Framework Directive. The positive influences of restorations are vast. A natural water area creates a beautiful landscape and therefore creates advantages to the usage of the water, for instance for fishing. From the social point of view, a more beautiful landscape makes the residents enjoy the area better and therefore makes the area more attractive aesthetically. From the economic point of view, fish-population, fishing possibilities and scenery factors may improve the value of the area, land or real estate. Moreover, recreational and cultural-historical values are increased, and both housing comfort and conditions of local tourist businesses are improved. For instance, people living alongside a river called “Vantaanjoki”, view restorations done in the area with an extremely positive spirit and 90 per cent feel that restorations are important. Noteworthy is especially the effect on activating local activity, which expresses social advantage – the improvement of community spirit due to valuable cooperation between the people who took part in the restorations. (Maa- ja metsätalousministeriö 2004: 28–29; 46; Olkio & Eloranta 2007: 32–33; Savolainen 2007: 177; Haldin, Nuotio, Rautio, Siiro, Storberg & Westberg 2010: 253.)

## 5. EMPIRICAL DATA

### 5.1. Research method

A questionnaire was made to landowner's near four different small water areas to find out people's perceptions about restorations. The results emphasise the importance of interactivity, transparency and good communication in all phases of small water restorations.

*Quantity* comes from the Latin word *quantitas* meaning “how great” or, “how many”. Quantitative research often brings to mind numbers, magnitude, and measurement. The problem that quantitative researchers often face is that they count only certain things, and it may be the case that something that cannot be quantified is of great importance in one's research. Thus, quantitative researchers are sometimes accused of being too narrow, basing their research on what they can count, measure, and observe and neglecting other matters. Questionnaires are lists of questions given or sent to people who are asked to answer the questions and return the questionnaires to the senders. Table 1 shows the advantages and disadvantages of questionnaires. In general, surveys are inexpensive, especially when the amount of information obtained is considered. The information received is very current. In particular importance is the fact that surveys obtain information that can be quantified and analysed statistically and thus can reach a higher degree of precision about the group being studied that other forms of research cannot duplicate. However, surveys also contain several problems. People do not always tell the truth, especially about personal matters. People make mistakes about their behaviour, for instance they may underestimate the amount of television they watch in a given day. People may give incorrect answers because the questions are unclear or ambiguous, or even threatening. (Berger 2000: 13; 189–193.)

Table 1. Questionnaire's advantages and disadvantages.

Questionnaires	
Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Inexpensive</li> <li>• No interviewer bias to worry about</li> <li>• You can ask about personal matters</li> <li>• You can ask complex, detailed questions</li> </ul>	<ul style="list-style-type: none"> <li>• People may misinterpret questions</li> <li>• Low response rates the norm</li> <li>• You do not know who actually filled out the questionnaire</li> <li>• Sampling errors frequent</li> </ul>

## 5.2. The comparative approach

This study has a comparative approach. Comparison is one way to survey administrative phenomena. As a method, comparison has certain characteristics that differentiate it from other research methods but it also should follow certain rules. In comparative administration it is typical to compare different cultures to each other or to compare differences within one particular culture, or to make comparisons in national level. It can be said that the studies of Weber, Riggs, Mill and Ragin are landmarks of comparative administration research. The comparative research stresses tendency of comparisons that are connected with legislation, normative empirical comparisons, and comparisons which take into account social and physical environments. (Niemi 2008: 23–24.)

The basic idea in a comparison is to systematically find similarities and differences from the compared objects. As a method, comparison is based on the assumption that there are regular and noticeable changing processes in politics, society or economy. Comparisons are made between systems since in different systems similar processes can be discovered. Comparative research should be made systematically. Comparison can be carried out with two or more objects if they have a common variant which has the same meaning in all possible cases. (Niemi 2008: 25–26.)



A researcher has various options to carry out a comparative research. The choice depends on goals, interest of information and practical contributions which the researcher has set up for the comparative research. Options are for instance contextual or single case approach, two or multiple case approach, and full-range comparison (see Table 2).

Table 2. Methodological options for comparative research (Salminen & Viinamäki 2006: 13).

	<b>Goals</b>	<b>Interest of knowledge</b>	<b>Practical contribution</b>
<b>Contextual or single case</b>	(Historical) descriptions	Unique development, complexity	Accurate and realistic 'local' experience
<b>Two or multiple case</b>	Different or similar systems	Qualitative interpretations, press on distinctions	Best practices, development administration
<b>Full-range comparisons</b>	Cause and effect explanations and generalizations	Systematic explanations, press on similarities	Benchmarking, criteria for global governance

The question of the number of objects or variables is highly dependent on the particular features of each study and the choices of the researcher. Contextual comparisons are descriptions of the environment and context of the studied phenomenon. The historical background can be used as a context. In a broader context there may be descriptions of other similar cases and their characteristics. Single case approach is quite similar to contextual comparisons. Single case approach is ideographic in nature and may contain relatively limited variance in the studied factors. Single case comparisons are accurate and historical down-to-earth descriptions. Its weakness is that it offers more theoretical material than empirical findings. In addition, both types of comparison are limited to unique changes in a single case. Since these two approaches use time as their main component of the analysis they may also be called cross-time comparisons. Full-range comparison approach is the most expensive type of comparisons which makes it

sensible to use quantitative and statistical methods and surveys. The basic idea is to use a wide enough range of cases (for instance countries) so that the possibility of randomness and misinterpretation decreases. (Niemi 2008: 26–28.)

The nature of comparative research is clearer when there are two or multiple cases in comparison. According to Salminen and Viinamäki (2006: 11), compared to single case approach, using more cases in the comparison, it is possible to produce in-depth conclusions, sharper definitions of the elements to be investigated, and the best practices for administration and management. In her study, Niemi (2008: 27) wrote that when a comparison involves two or multiple cases, the question about comparability comes more relevant than in contextual or single case approach. The variation in implications increases in the same relation with cases. This can be solved by choosing a high enough level of comparability which can be expected to provide relevant answers to the research problem. All country cases should then be analysed by describing and interpreting them in the same way and with equal preciseness.

This study concentrates to the option of two or multiple case comparison. However, full-range comparison is also utilized to press on similarities. The choice of analysis is quantitative interpretation. The focus is in similar systems within which differences are distinguished. Practical contribution aims at better understanding of encouraging citizens to participate.

### 5.3. Realization of the questionnaire

A postal questionnaire was made for this study. The questionnaire was sent by mail to 97 landowners in Finland and to 47 in Sweden, thy 144 landowners in total. The questionnaire was realized in July 2010 to landowners nearby four different small water areas, three of which are located in Finland and one in Sweden; Krokån in Maahti, Lillån in Teuva, Nörrskogsdiket in Oravainen and in Sweden to Slösbäcken. A reply envelope was sent with the questionnaire, for answering to be as easy and convenient as possible. Moreover, motivation to answer the questionnaire was enhanced by offering

the respondents a possibility to take part in a lottery with a book called "Jääkauden jälkinäytös - Merenkurkun maailmanperintösaaristo" as the prize. Funding for the questionnaire was offered by Länsstyrelsen Västerbotten, Regional Council of Ostrobothnia and the European Regional Development Fund's Botnia-Atlantica programme. The necessary address-information was received from the South Ostrobothnia Centre for Economic Development, Transport and the Environment.

From Finland 45 answers were received which makes the response rate 46.4 per cent. In addition there were 4 responses which were rejected due to their poor responses. From Sweden 16 answers were received which makes the response rate 34 per cent. In Sweden the reminders could not be sent during summer 2010, since our co-operation partners of the Botnia-Atlantica programme were having their summer holiday at the time of sending the reminders. The reminder was sent afterwards during spring 2011 to make the comparison more valid. Within the limits of the schedule it was not possible to send another reminder-round to increase the responsive rate. The questionnaires were slightly different in the two countries; for instance the question about education had to be modified to equate Sweden's own schooling-system. This gives some challenges to comparison between the two countries. The questionnaire was analyzed with SPSS-statistic-program.

#### 5.4. Evaluation of citizen participation in small water restorations

##### *Analysis of the questionnaire*

Three background variables were chosen for the questionnaire (Appendices 1 and 2), with which information about the respondent's age, gender and education was collected. These background questions were decided to locate at the end of the questionnaire, since asking them at the beginning of the form might have caused the respondent to place themselves to these chosen roles too deeply and to answer according. At the beginning of the questionnaire the first questions were, whether the respondent is a landowner nearby small water, second, what he/she uses the small water area for, and

third, what is the name of the small water in the area. After this the respondents were asked to think about their attitude towards small water. Interest to participate in small water restorations and possible ways of participation were asked only after these basic questions. After this it was asked what respondent's wished the restorations would lead to in their district. Different answer options were given in all these above-mentioned questions. Next the question form moved to questions of opinion which had been performed on a five-ladder scale. These types of questions were chosen so that answering would be as easy and quick as possible. Before the background variables there were open questions for respondents who had already taken part in stream restorations.

When analysing the questionnaires I noticed there were some deficiencies in some of the questions or they could have been formulated better. In the question number six there could have been an alternative "I am not willing to participate in restorations". Alternatively, it could have been said in question five "If you are not willing to participate in restorations you can leave the next question number six unanswered." This is because some of the respondents who were not ready to take part in small water restorations did not answer to question number six. When analysing the results I decided to mark these respondents to "Empty/ No answer" category so that the results would not be distorted. Moreover, some of the respondents did not answer to question number five, which was about respondent's willingness to participate in planning and realizing the restorations. Therefore there could have been an alternative "I cannot answer" in addition to alternatives "Yes" and "No" in question number five. When analysing the results I placed these respondents to the "I cannot answer" alternative.

Some of the respondents did not answer to the question about their small water area's name. This could be because they were afraid their anonymity would be endangered, or that they were not aware of their area's small water. For instance, one of the respondents wrote that the name "Krokån" was not familiar to him/her since the small water is simply called a "brook" in the area. On the other hand, in the accompanying letter the small waters were connected with municipalities, which should have helped when answering the question about the small water's name. When analyzing the questionnaire

I added an alternative “No answer” to those who had not answered to the question. The question about the name of the small water could have also been formed differently; “What is the name of the small water you are a landowner by?”, since some of the respondents might have understood that “your area’s small water” meant the small water area near their residence, which was not the target of interest in this questionnaire.

The statement-questions (questions number 8-29, see appendices 1 and 2) could have partially been more neutral. Some of the respondents had not answered to all of the statements or they had chosen relatively much the alternative “no opinion” as their answer. The reason could be that some of the respondents did not want or did not have the time to examine the questionnaire enough, or the questions might not have been neutral enough. On the other hand, the reason could have been that the questions were too difficult, for instance concerning water’s good or bad state or worsening state of water due to human action. Perhaps the respondents could not evaluate factors like these, and therefore chose to answer relatively much the “no opinion”- alternative.

#### *Analysis of missing data*

In surveys answers are nearly never received from all of the research subjects. Not everyone is reached, some cannot answer because of a sickness and some refuse to answer without any apparent reason. Responsiveness is mainly affected by a study’s theme and especially whether respondents see it as interesting. Analysis of the missing data means in practise to specify the origins of lack of responses, that is, evaluating the extent of the lack originated in different stages of the survey. (Alkula, Pöntinen & Ylöstalo 1994: 139–140).

When making analysis of missing data it is often discovered that there are many reasons for people to not answer. One of the most common reasons is that researcher is not able to reach all of the respondents since the address information is not always valid. Address information changes for instance when place of employment changes and sometimes the reason for outdated address information can even be that the person has deceased. When analysing the missing data it can be said that unwillingness is one

factor which can be a cause of busyness or a fear of interference to one's personal affairs. The amount of responses is finally reduced because of insufficient and inaccurate answers which causes that some of the answers must be rejected. (Pihlaja 2008: 66.)

The deficiencies in the address list affected the responsive rate of this study's questionnaire. Land Information System of Finland contained outdated information about landownership relations, for instance the person who was mentioned as an owner in Land Information System of Finland had in reality passed away and the system did not contain information about the new owner, or ownership had not been yet reorganized. Moreover, some of the respondents were apparently too aged and/or unfit and could not therefore answer the questionnaire. Some of the forms were sent back empty, in total there were four of these rejected forms. The questionnaire gives a general view of the landowner's attitudes towards small water restorations in spite of the rather low responsive rate. The questionnaire's results are useful background information when planning stream restorations.

#### *Reliability and validity*

In any set of data you collect, there will be some amount of error. Naturally, one wants to minimize this error. Reliability is a statistical measure of how reproducible the survey instrument's data are. Reliability is commonly defined in three forms: test-retest, alternate-form, and internal consistency. Test-retest reliability is measured by having the same set of respondents complete a survey at two different points in time to see how stable the responses are. Alternate-form reliability involves using differently worded items to measure the same attribute. Internal consistency is an indicator of how well different items measure the same issue. (Litwin 1995: 5–21.) Concerning this study, the reliability is good. The study can be repeated with the same or adapted questions. Possible changes to this study are conceivable in a renewed study, but it is influenced by the target group. The results were expected and there were no randomness except for individual cases. The respondents had mainly understood the given questions right.

Validity means of how well a survey measures what it was meant to measure. An item that is supposed to measure for instance participation should measure participation and not some related variable. Validity is an important measure of a survey instrument's accuracy. (Litwin 1995: 33–34.) Concerning validity the study has aimed to a clear and illustrative manner of representation. The questionnaire's validity is improved by the fact that the questionnaire was tested and some of the questions were altered before the actual study. Inner validity has been made with the existing data and the analysis on the base of the questionnaire. The study in its entirety represents the researcher's subjective view, therefore rationalizations and interpretations are accordant with that view.

#### 5.4.1. Results in Finland

Most of the respondents (65 %) were male. More than half (54 %) of the respondents were over 60 years old and nearly third (28 %) of the respondents were 50 to 59 years old. Majority of the respondent's education (33 %) was comprehensive school, 26 per cent had been to vocational school. Out of the respondents 21 named their small water area to be Krokån, 13 Lillån and six Nörrskogsdiket. Nearly all of the respondents are landowners nearby small water.

Small water districts were mainly used for three things. First, respondents answered they are permanent inhabitants in the area (31 %). Second, the small water district is utilized for recreational purposes (20 %). Small water district is used to other purposes according to 14 per cent of the respondents, for instance picking up flowers and berries and using small water for watering purposes. As presented in Figure 10, when answering to the question about attitudes towards small water areas in their district, majority answered small water to be an important part of nature (38 %). Third of the respondents answered the small water to create a beautiful landscape in their district. Even so, there is not much of recreational usage in the small water area since merely 12 per cent use the area for recreation. Only eight per cent answered that they do not experience the small water area to be that significant.

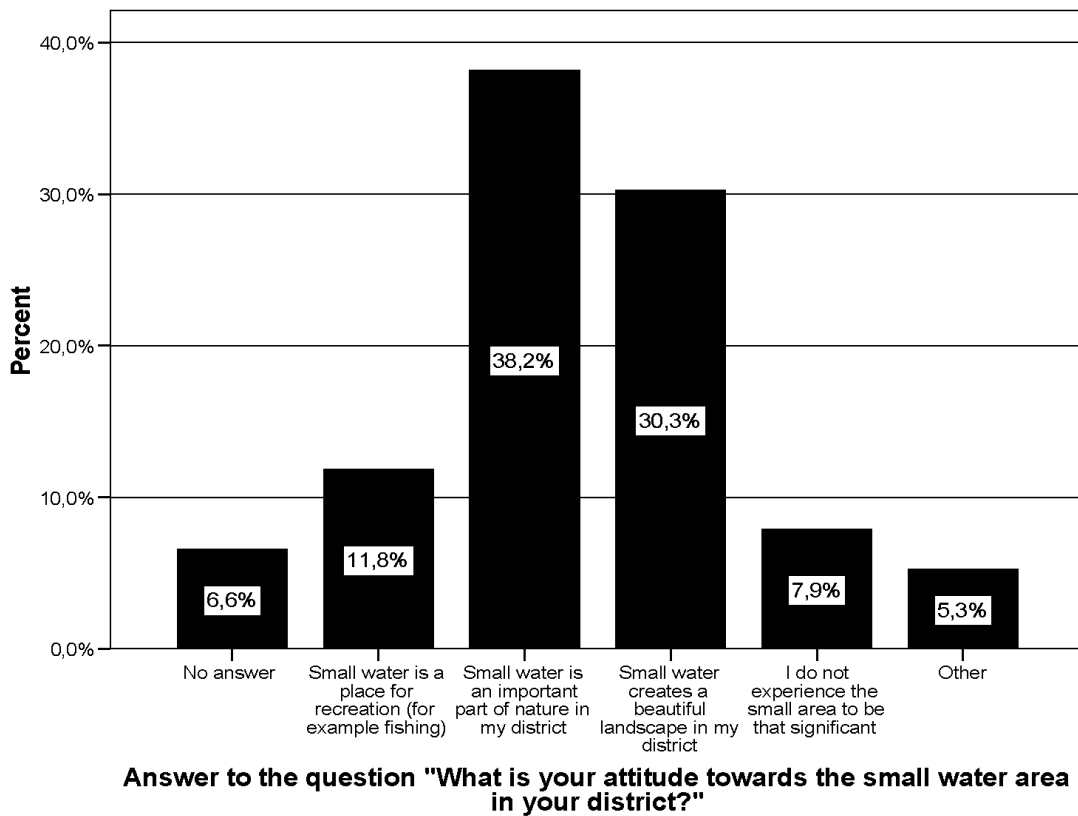


Figure 10. Landowner's attitudes towards small water area.

40 per cent of the respondents answered that they would be willing to participate in planning small water restorations in their district and 49 per cent would not be willing to participate in planning them. 37 per cent answered "yes" to the question "if there were to be stream restorations in your district, would you be willing to participate in realizing them?" 51 per cent answered they would not be willing to participate in realization of small water restorations. The respondents would mainly be willing to take part in possible stream restorations in two ways. First, citizens would like to participate in voluntary work. Second, citizens would like to operate as experts in their own areas. The respondents seem to expect several things from the restorations (see Figure 11). 25 per cent of the respondents expect the quality of water to get better. 19 per cent expect the amount of fish in the water to multiply. 15 per cent expect that the landscape would be more beautiful and also that biological diversity would increase.



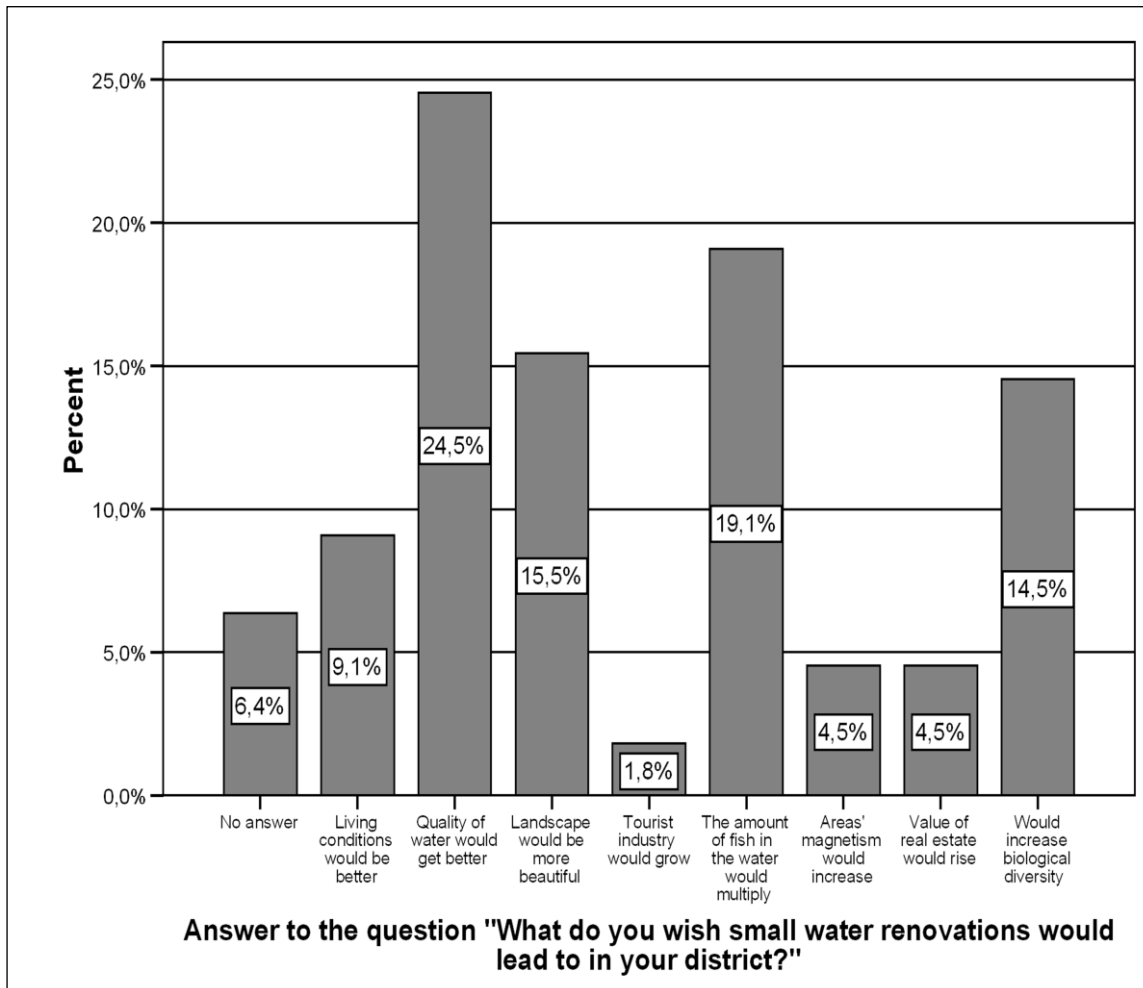


Figure 11. Landowner's expectations on from effects of small water restorations.

Majority of the respondents (65 %) agree with the claim "It is important that the water area is in a sufficiently good condition, so that it can be used for recreation", 26 per cent have no opinion. Over half of the respondents (54 %) agree with the claim "I regularly visit my small water area to admire its beautiful landscape", 28 per cent are neutral or have no opinion on the matter. Majority of the respondents (40 %) have no opinion to the claim "I regularly visit my small water area to enjoy peace and quiet". Over third of the respondents (35 %) agree with the statement. 35 per cent have no opinion to and nearly half (49 %) disagree with the claim "I visit my small water area to refresh myself (for example fishing or swimming)".

44 per cent of the respondents have no opinion to and merely 35 per cent agree with the claim “The waters in my district should be renovated”. Over half of the respondents (61 %) have no opinion to the claim “I am ready to small water restorations in my district, if possibilities for fishing get better and recreation use becomes more reasonable”. Nearly half of the respondents (47 %) have no opinion to the claim “The diversity of aquatic nature is an essential reason for the need of small water restorations”. Answering to the claim “I am ready for my areas small water restorations, if the water gets into a better state with the restorations”, half of the respondents agree and 37 per cent have no opinion. Half of the respondents (51 %) have no opinion to the claim “I am highly motivated to take part in small water restorations in my area”. Third of the respondents agree.

Majority (68 %) of the respondents agree with the claim “It is important that the information concerning small water restorations is given in a clear and concrete way”. Majority of the respondents (74 %) agree with the claim “The local knowledge of the inhabitants is needed when possible restorations are started” (see Figure 12). Moreover, majority (70 %) of the respondents agree with the claim “During possible restorations sufficient and continuous amount of reporting about the restorations and their impact is important”. Majority (67 %) of the respondents agree with the claim “I wish that during possible restorations co-operation between different actors is extensive”.

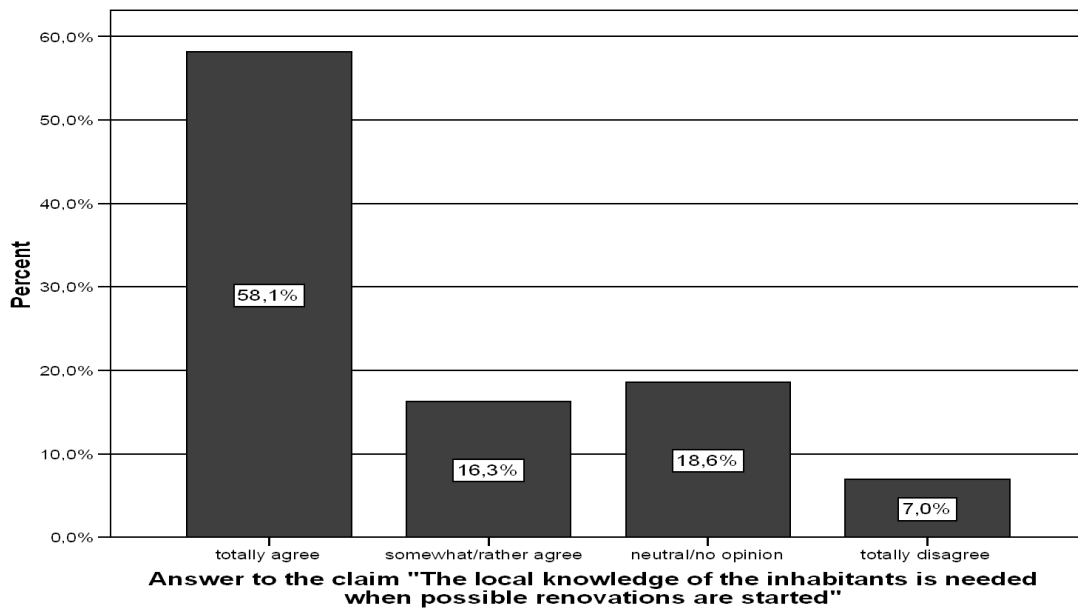


Figure 12. The importance of local knowledge in small water restorations.

On one hand, 42 per cent of the respondents have no opinion, and on the other hand 47 per cent agree with the claim "In my opinion, stream restorations are possible if it does not incur for me to lose income". Over half of the respondents (54 %) have no opinion to the claim "The most important thing for me is that I get financial benefit from my district's small water". 42 per cent of the respondents agree and 35 per cent have no opinion to the claim "I am ready for my areas small water restorations, if I do not need to offer financial support for them".

When asking about the importance of small water areas in their districts, over half of the respondents (54 %) see the meaning as important, 40 per cent have no opinion. Majority (63 %) have no opinion to the claim "Human action has had a negative impact on the state of my district's small water" (see Figure 13). Over half of the respondents (54 %) have no opinion to the claim "The state of my small water area has impaired". Majority (74 %) agree with the claim "It is important that fish and water plants feel great". Majority (63 %) of the respondents agree with the claim "Waters are at their best at their natural state", a third has no opinion. 42 per cent of the respondents agree and 47 per cent have no opinion to the claim "The state of my district's small water is good".

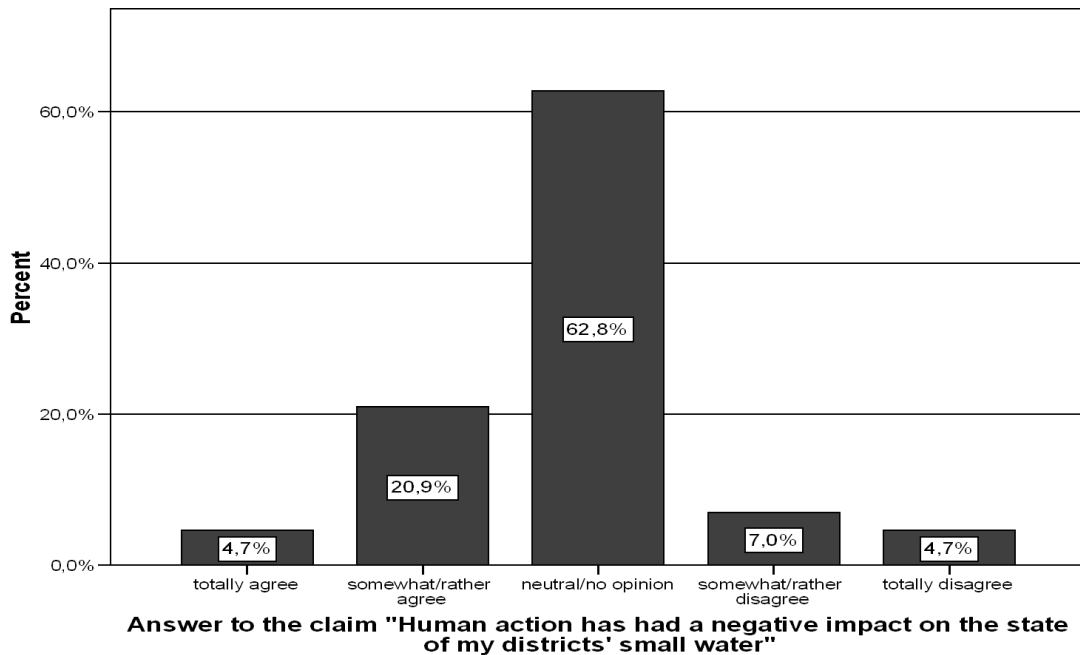


Figure 13. Negative impact of human action on small waters.

#### 5.4.2. Results in Sweden

In Sweden the results were similar to Finland's, with somewhat more positive attitudes though. Majority of the respondents (69 %) were male. Over half of the respondents (56 %) were over 60 years old, 38 per cent were 50 to 59 years old. Concerning the respondent's education, most (31 % of the respondents) had been to vocational school, 25 per cent had an academic degree and 19 per cent had been to upper secondary school. Nearly all (81 %) answered that they are landowners nearby a small water area. The respondents mainly use the small water area for three things. First, 35 per cent are permanent inhabitants in the small water area. Second, 31 per cent use the small water area for recreation. Third, 23 per cent use the small water area for fishing. All of the respondents from Sweden were landowners by small water area called "Slössbäcken".

Equally large proportions of the respondents (36 %) feel the small water is an important part of nature in their district and that small water creates a beautiful landscape. 26 per

cent answered that the small water is a place for recreation. Only one of the respondents answered that he does not see the small water area to be that important. Majority (69 %) of the respondents in Sweden answered they would be willing to participate in planning possible small water restorations in their area. Half of the respondents would be willing to participate in realizing possible stream restorations in their area, half would not be willing. The respondents would be willing to participate in small water restorations mainly by participating in voluntary work. Also Swede's expect several things from the restorations (see Figure 14); the amount of fish in the water would multiply (24 %), biological diversity would increase (20 %), quality of water would get better (16 %), landscape would be more beautiful (16 %), value of real estate would multiply (14 %).

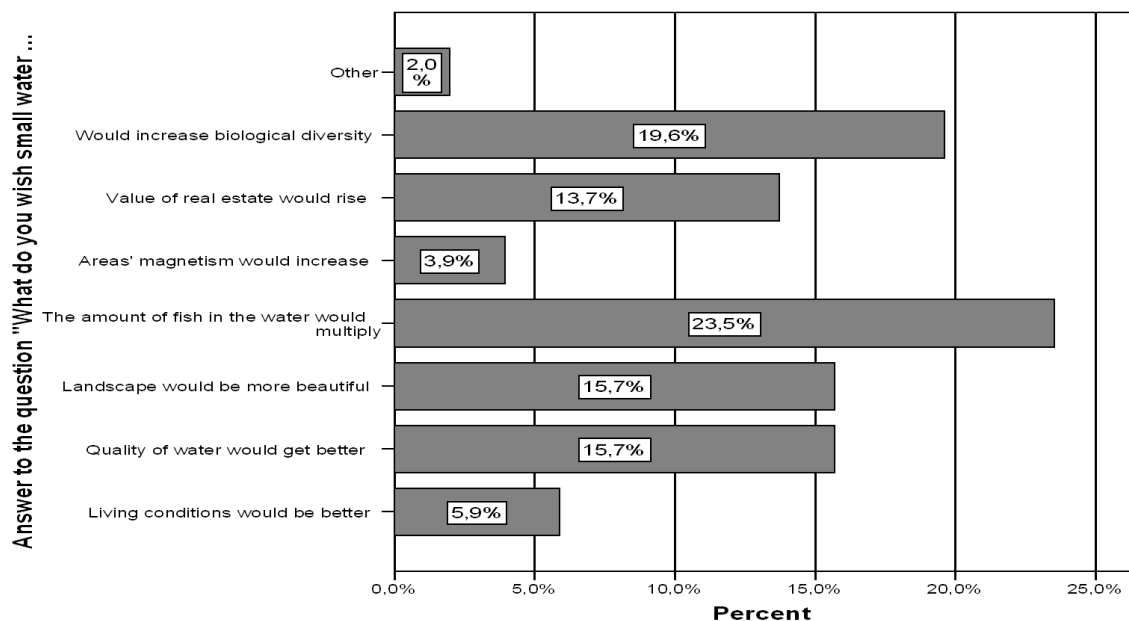


Figure 14. Expectations from the effects of small water restorations.

Majority (75 %) of the respondents agree with the claim "It is important that the water area is in a sufficiently good condition, so that it can be used for recreation". Half of the respondents agree with the claim "I regularly visit my small water area to admire its beautiful landscape", 25 per cent disagree. 63 per cent agree with the claim "I regularly visit my small water area to enjoy peace and quiet". Majority of the respondents (69 %)

have no opinion to the claim “I visit my small water area to refresh myself (for instance fishing)”.

Majority (69 %) of the respondents agree with the claim “The waters in my district should be renovated”. Same percentage of the respondents also agree with the claim “I am ready to small water restorations in my district, if possibilities for fishing get better and recreation usage becomes more reasonable”. Majority of the respondents (69 %) agree with the claim “The diversity of aquatic nature is an essential reason for the need for small water restorations”. Majority (75 %) of the respondents agree with the claim “I am ready for my area’s small water restorations, if the water gets into a better state with the restorations”. 63 per cent of the respondents agree with the claim “I am highly motivated to take part in small water restorations in my area”.

Nearly all of the respondents (88 %) agree with the claim “It is important that the information concerning small water restorations is given in a clear and concrete way”. Nearly all of the respondents (87 %) also agreed with the claim “The local knowledge of the inhabitants is needed when possible restorations are started”. Nearly all of the respondents (88 %) agree with the claim “During possible restorations sufficient and continuous amount of reporting about the restorations and their impact is important”. Clear majority of the respondents (87 %) agree with the claim “I wish that during possible restorations co-operation between different actors is extensive”.

Majority (75 %) of the respondents agree with the claim “In my opinion, small water restorations are possible if it does not incur for me to lose income”. 44 per cent of the respondents had no opinion to the claim “The most important thing for me is that I get financial benefit from my district’s small water”. 75 per cent of the respondents agree with the claim “I am ready for my areas stream restorations, if I do not need to offer financial support for them”.

Majority of the respondents (69 %) see the meaning of their district’s small water as important”. 63 per cent of the respondents agree with the claim “Human action has had a negative impact on the state of my district’s small water”. Over half of the respondents

(56 %) think that the state of their district's small water areas has impaired. Nearly all of the respondents (88 %) agree with the claim "It is important that fish and water plants feel great". A clear majority of the respondents (87 %) agree with the claim "Waters are at their best at their natural state". 69 per cent of the respondents have no opinion to the claim "The state of my districts' small water is good".

#### 5.4.3. Comparison of the two countries

This chapter discusses the empirical setting of this study. The possibility to compare results between the two countries is weakened by the fact that Finland and Sweden have an extensive difference in the responsive rates. As earlier mentioned, Sweden's responsive rate was 34 per cent while in Finland it was 46.4 per cent. Moreover, the comparison is weakened by the difference in the amount of questionnaires sent to each country – in Finland it was sent to 97 landowners, whilst in Sweden to 47 landowners.

As assumed, Finland and Sweden differed in willingness to participate in small water restorations. There is a quite significant difference in willingness to participate in planning possible small water restorations between the countries; in Finland 40 per cent and in Sweden 69 per cent of the respondents would be willing to participate. Half of the respondents in Sweden and 37 per cent in Finland would be willing to participate in realizing possible small water restorations, half of the respondents in both countries would not be willing. Moreover, majority (69 %) of the respondents in Sweden agree with the claim "The waters in my district should be renovated", while in Finland 44 per cent of the respondents had no opinion to and merely 35 per cent agree with the claim.

The respondents in Finland would mainly be willing to take part in possible small water restorations in two ways. First, citizens would like to participate in voluntary work. Second, citizens would like to operate as experts in their own areas. The respondents in Sweden would be willing to participate in small water restorations mainly by participating in voluntary work. According to Bovaird et al. (2001: 4–5) four challenges should be overcome when it comes to voluntary work. First, information about the possibilities and challenges of volunteering should be available to all of the population.

Second, combining inflexible working schedules with voluntary engagement might be challenging in some cases. Three, there should be enough financial support received from the private sector. Finally, the governance structures of local authorities, companies, associations and other voluntary organizations should be flexible enough to accommodate the needs and wishes of potential activists.

Niemi (2008: 54) argues that individuals have two reasons to act for a common cause. First, the group of individuals is supposed to be quite small so that a common interest can more easily be found. Second, finding common interest is essential for common action. In addition, those who participate are generally those who have knowledge and education and who are wealthy. That is, highly educated citizens participate more often than those with lower education. Does this argument come true in this study? According to the questionnaire the respondents from Sweden have a higher education than those from Finland. 33 per cent of the respondents in Finland and 13 per cent in Sweden answered their highest degree of education to be comprehensive school. More or less same percentage (approximately half) of the respondents in both countries answered their education to be upper secondary education. The Swede's answered their education to be higher vocational diploma by 25 per cent of the respondent, while merely 2 per cent of the Finns answered so. However, 12 per cent of the Finns had a master's degree while 6 per cent of the Swedes had one. In general it can be said that the Swede's were more highly educated than the Finns, which can explain the fact that the Swede's were more willing to participate in small water restorations.

Arnstein's (1969) ladder of participation will be the theoretical base of the comparison in this study. Informing is one of the characteristics of Arnstein's ladder of participation. Informing includes for instance pamphlets, posters, and responses to inquiries to the citizens about their rights, duties and options. Information should be distributed in a way that is continuous and most appropriate to particular audiences and it should be accessible to as many people as possible. Information about restoration projects spreads the project's acceptability and engages people with them. In the questionnaire it was perceived that information about the restorations is seen as an important factor in both countries. In Sweden 88 per cent, and in Finland 68 per cent of the respondents thought,



that it is important to give the information concerning water restorations in a clear and a concrete way. Moreover, 70 per cent of the Finns and 88 per cent of the Swede's thought that during possible restorations sufficient and continuous amount of reporting about the restorations and their impacts is important. The local inhabitants should have a clear idea about why the process is realized, who will participate, what are the different stages that are gone over and what are the aims of the project.

Information is clearly an essential part of participation. Political knowledge in particular predicts strongly with active political participation. The same perception of relation between knowledge and participation concerns participation in general. Moreover, according to Grob (1995: 209–211), the more people know about the environment, the more appropriately they will act. Therefore, knowledge is an essential factor concerning participation in small water restorations. According to Savolainen (2007: 349) people do not completely understand what affects water quality. For instance, activities and influences in catchment level are not clear. Similarly, the questionnaire revealed that in Finland there is not enough information given to citizens concerning small waters. The differences respondents in each country have concerning knowledge about small waters can explain the difference in willingness to participate in restorations. In Finland, majority (63 %) have no opinion to the claim “Human action has had a negative impact on the state of my district's small water”, whilst 63 per cent of the respondents in Sweden agree with the claim. Over half of the respondents in Finland (54%) have no opinion to the claim “The state of my small water area has impaired” while approximately the same percentage in Sweden (56 %) agree with the claim. In Finland 47 per cent have no opinion to the claim “The state of my district's small water is good”. Looking at these results, it seems that the Swede's have more knowledge about the state of small waters than the Finn's. It can partially mean also that the Swede's have different, more positive, attitudes compared to the Finns. Even so, the Finns consider the state of waters important. Majority of the Finns (74 %) think it is important that fish and water plants feel great and majority (63 %) think waters are at their best at their natural state.

One of the reasons for the fact that small water restorations are not begun is that their

current state is seen as good, even if the small water is not at its natural state. Small waters should be as natural as possible to ensure their diversity. For instance ditching and dams alter the natural hydrology of waters, and some of the respondents suggested these kinds of actions that in fact worsen the state of small waters. Citizens could therefore be motivated to participate in stream restorations by informing them about restorations, the importance of natural small waters, and the future of small waters. Moreover, there was dependency between the feeling of need for restorations and the feeling of worsening state of small waters in the responses from Sweden. Therefore it is possible to reason that the knowledge about the state of small water would increase the interest for small water restorations. However, Coenen et al. (1998: 5–6) explain the lack of enthusiasm of participatory projects by arguing that even if the public is informed, say about need for small water restorations, environmental problems may not be understood and thus the right decisions are not taken.

According to WWF (2009: 16) attitudes affect people's behaviour as much or even more than knowledge. In this regard people's attitudes concerning small water restorations can be considered important. Moreover, Grob (1995: 209–211) states that the more intense the emotions with which people react to the worsening state of the environment, the more accordingly they will act. The attitudes were quite similar in both countries. Approximately third of the respondents in Finland and 36 per cent in Sweden felt that small water is an important part of nature and that it creates a beautiful landscape in the area. Over half of the respondents in Finland and half in Sweden visit the small water area to admire the beautiful landscape. The importance of small water as a unique ecosystem, the beauty of natural small waters and possibilities to recreational use should be clarified and emphasized to people. If people had a better knowledge and understanding of these factors, the interest to restorations could increase. This implication is supported by the fact that when analysing the results I noticed dependency between the importance of small waters and participating to planning and realizing of small water restorations. Even though in Finland the respondents did not feel that strong a need for restorations, they still had plenty of expectations concerning the advantages from restorations. In contrast, majority of the Swede's felt restorations should be done, and they still expected many benefits to be acquired from restorations.

In addition to ecological benefits, stream restorations have social and financial benefits. If people especially in Finland were to realize that these advantages are in fact possible, their enthusiasm could grow. In other words, people could be motivated to participate in restorations, if they had more knowledge about the advantages restorations bring to both nature and people. In addition, restorations could be an exhilarating factor for recreational use since at the moment respondents did not use the small water area for recreation very much.

The countries had vast differences regarding opinions about reasons for restorations. In Finland over half of the respondents (61 %) have no opinion to, and 69 per cent of the Swede's agree with the claim "I am ready to small water restorations in my district, if possibilities for fishing get better and recreational use becomes more reasonable". Nearly half of the respondents in Finland (47 %) have no opinion to the claim "The diversity of aquatic nature is an essential reason for the need of restorations", while majority of the respondents in Sweden (69 %) agree with the claim. Half of the respondents in Finland (51 %) have no opinion to, and 63 per cent of the Swedes agree with, the claim "I am highly motivated to take part in small water restorations in my area". According to these answers the Swede's have a more positive attitude towards the possible advantages from small water restorations. The reasons could also be the better knowledge of the Swede's. As we have learned, the Finns did not seem to have knowledge about small waters.

Even though informing is an important part of citizen participation, it is not sufficient. Arnstein situates informing as tokenism in his theory about citizen participation. The problem with informing is that there is often no channel provided for the citizens to give feedback, nor power for negotiations. In fact, the local knowledge of the inhabitants is needed in Sweden according to nearly all of the respondents (87 %) and in Finland according to 74 per cent of the respondents. This suggests that merely informing is not considered as sufficient, but the citizens also want to have a say in small water restorations. Rotko and Lyytimäki (2004: 7–8, 38) also encourage two-way interaction; fluent interaction that should continue throughout the project is a prerequisite for the restoration projects. A fundamental part of the interaction is passing of information from

officials and researchers to volunteers in a clear and a concrete way. However, the local knowledge should also pass on to the experts. Björkell (2008: 138) adds that by offering the citizens possibilities to declare their own opinions it is possible to increase the project's acceptability and motivate the officials to offer this possibility.

It can be said that consultation about small water restorations was realized in the form of this survey. The aim of the survey was to measure landowner's attitudes towards small water restorations, all though the survey is merely indicative, that is, it does not bind the respondents to anything. The problem of this level of participation is that participation is measured by how many come to meetings, take brochures home, or answer a questionnaire and the decision-makers do not truly involve the citizens. Consultation is also part of tokenism in the ladder of participation. At this level of participation citizens are allowed a possibility to hear and to have a voice. However, when citizens are able to hear and to be heard, they still lack the power to insure that their views will be taken into account by the powerful.

Improving citizen participation requires collaboration of several different actors. There should be active citizens, political decision-makers and administrative personnel, good and attractive procedures, and preparation and decision-making processes which may take direct participation into account. Partnership is another characteristic from the ladder of participation and it means in practice that planning and decision-making responsibilities are distributed in shared planning committees. In fact, according to the questionnaire, the respondents wished that during restorations co-operation between different actors is extensive (87 % of respondents in Sweden and 67 % in Finland thought so). Savolainen (2007: 347–348) clarifies that participation of a wide range of people is important in all phases of the project, and it helps in at least four ways. First, it helps in including all groups' views and knowledge. Second, it helps in developing a joint understanding of and view about the development needs, objectives, actions and activities of the project. Third, participation of a wide range of people helps in developing trust and confidence between partners. Finally, it helps in laying the basis for sound and productive working relations.

Delegated power means that citizens have either decision-making power concerning certain plan or program or citizens have a veto-power in case disagreements cannot be solved with negotiations. Concerning small water restorations, landowners need to give their permission in order for restorations to be at all possible, which gives them sort of veto-power already from the beginning. Partnership and delegated power are a part of citizen power in the ladder of participation. Open availabilities throughout the decision-making process are very important for citizen participation. In short, public involvement should be included to decision-making processes from A to Z.

## 6. CONCLUSIONS

The aim of this study was to examine participative governance in the sphere of cleaning waters. The main research question was: What are the possibilities and limitations of participative governance? This was followed with sub-questions: a) What is participative governance? What does it signify concerning small water restorations? b) Water governance both in Finland and Sweden. What are the laws, officials and procedures behind small water restorations? c) The key elements in encouraging people to participate in small water restorations, both in Finland and Sweden. Are there differences between Finnish and Swedish landowner's views? When protecting small waters, laws affect in the background but the best results are achieved when the citizens are involved. Therefore it is important to receive information on how to make people participate. The method of this study was comparison. The comparison included landowners near three small waters in Finland and near one small water in Sweden. The cases are analysed using a quantitative approach; a questionnaire was sent to study the matter. The assumption was that landowners in Sweden are more enthusiastic about small water restorations than those in Finland. Moreover, Swedish landowners are assumed to be more informed about water issues.

In the beginning citizen participation was dealt with to lay the ground for the theoretical part. People are a part of the society and in some issues should also get position as stakeholders. Full citizenship is not only about formal civil, political and social rights but also about the idea that everyone has enough resources and confident to take advantage of these possibilities, and citizenship is therefore both participatory and egalitarian. Arnstein (1969) defines citizen participation as a synonym for citizen power. Participation gives the citizens a possibility to join to determine how information is shared, goals are set, programs are operated, and benefits like contracts are split. There is a critical difference between going through the empty ritual of participation and having real power needed to affect the outcome of the process. Participation in small water restorations can be considered as somewhat special topic, which is followed by the fact that perhaps it cannot be paralleled with all kinds of participation. However, participation in water governance can be used as an example for similar kinds of

participation models. For instance, it could be helpful in developing devices for local participation in municipalities or in constructing participation in the sphere of land use and building managed by the Ministry of the Environment.

It was also necessary to discuss water governance and the general idea of stream restorations to clarify the basic idea behind these matters. In Finland the authorities behind water issues are: the Finnish Environment Institute, the Centres for Economic Development, Transport and the Environment, and the Regional State Administrative Agencies. In Sweden the water authorities are: the County Administrative Board, the Geological Survey of Sweden, the Swedish Forest Agency and the Environmental Court. It can be said that the tasks and goals of these authorities are somewhat similar. The Finnish Environment Institute and the Geological Survey of Sweden have similar functions. For instance, these two authorities are both experts in water issues and responsible for the status of ground water. The Centres for Economic Development in Finland and the County Administrative Board in Sweden also have similar tasks. Both of these work in collaboration with municipalities and other officials. The County Administrative Board monitors and analyses the state of the environment, while the Centres for Economic Development, Transport and the Environment are responsible for monitoring the water supply, steering related planning, and steering financial support within their own areas. Permits for water operations are the responsibility of the Regional State Administrative Agencies in Finland and the Environmental Court in Sweden. The Finnish Forest and Park Service takes care of environmental protection in land owned by the government. The main function of the Swedish Forest Agency is to realize two objectives: environmental goals and production goals. As one of the aims of the Swedish Forest Agency the following is mentioned: “increasing general knowledge on all the benefits our forest ecosystems provide, and the important role of natural environments for recreation and public health”. This is a goal the Finnish officials should also aim at, since according to the respondents of the questionnaire, there is a considerable lack of knowledge on water issues in Finland. In Sweden, the respondents seemed to be more aware of the importance of diverse water ecosystems.

The idea for the study came from the Centre for Economic Development, Transport and

the Environment of South Ostrobothnia and the programme called “Botnia-Atlantica”. The new European Water Policy influenced in the background with the goal of getting polluted waters clean again, and to ensure clean waters are kept clean. The challenge of cleansing waters is answered with two tools; (1) getting Europe’s waters cleaner and (2) getting the citizens involved. There are three reasons for the need to get citizens more involved. First, the public needs to know about decisions concerning water management that will affect them, and in particular, citizens need to be able to have an effect on the decisions concerning these waters. When it comes to reconditioning small water bodies, landowners will be in a very important part. Without permissions from landowners no restorations can be done. Secondly, transparency is an important measure in the process of cleaning waters. Finally, restorations are usually mainly done as voluntary work, so it is important to get citizens to participate. However, it can be said that the current participation of citizens in the area of caring for water is not enough, and more involvement of citizens, interest parties and non-governmental organisations (NGOs) is required. The objective is to share information in a manner that all affected individuals or communities receive adequate information in a timely and meaningful manner. To achieve this, information must flow from governments in ways that genuinely support people’s informed participation.

### *Main conclusions*

Concerning the possibilities and limitations of participative governance, the following main conclusions are drawn from the analysis of the comparison. First, willingness to participate is limited when the citizens are not offered with a sufficient amount of information. According to Arnstein’s ladder of participation, information should be distributed in a way that is continuous and most appropriate to particular audiences and it should be accessible to as many people as possible. As assumed, Finland and Sweden differed in willingness to participate in small water restorations. The Swede’s are more interested especially in planning stream restorations than the Finns. The differences respondents in each country have concerning knowledge about small waters can explain the differences in willingness to participate in restorations. The questionnaire revealed that in Finland there is not enough information given to citizens concerning small



waters. Moreover, highly educated citizens participate more often than those with lower education. In general it can be said that the Swedes were more highly educated than the Finns, which can explain the fact that the Swedes were more willing to participate in small water restorations. In addition, it was perceived that information about the restorations is seen as an important factor in both countries. Information should pass from officials and researchers to renovators in a clear and concrete way. The local inhabitants should have a clear idea about why the process is realized, who will participate, what are the different stages that are gone over and what are the aims of the project.

Even though informing is an important part of citizen participation, it is not sufficient. Arnstein situates informing as tokenism in his theory about citizen participation. The problem with informing is that there is often no channel provided for the citizens to give feedback, nor power for negotiations. Therefore the local knowledge of the inhabitants is needed – the citizens also want to have a say in small water restorations. Consultation, that can be said was realized in the form of this survey, is also problematic since the decision-makers do not truly involve the citizens.

Second, the willingness to participate is limited because of attitudes concerning for instance small waters and their importance. Since attitudes affect people's behaviour as much or even more than knowledge, people's attitudes concerning small water restorations can be considered important. As a developmental idea I suggest that the importance of small water bodies as original water ecosystems, the beauty of natural small waters and the possibilities of water area's recreational utilization ought to be clarified and stressed to people. One of the reasons for the fact that small water restorations are not begun is that their current state is seen as good, even if the small water is not at its natural state. Moreover, communality and knowledge about the benefits of small water restorations to both nature and people could motivate people to participate. In addition to ecological benefits, reconditioning small waters has social and financial benefits. If people were made to understand these factors, they could be more enthusiastic towards caring for small water bodies. In addition, restorations could be an exhilarating factor for recreational use since at the moment respondents did not use the

small water area for recreation very much. The countries had also vast differences regarding opinions about reasons to renovate. According to these answers the Swede's have a more positive attitude towards the possible advantages stream restorations may offer. The reason for the differences could also be the better knowledge of the Swede's; it could be that the Finns do not know these advantages are at all possible.

Third, it is possible to increase the willingness to participate by developing better opportunities to cooperate. As we have learned, one of the cornerstones concerning water restoration projects is fluent interaction, and it should always continue throughout the entire project. Partnership is also another characteristic from the ladder of participation. Improving citizen participation requires collaboration or partnership of several different actors. The respondents wished that during restorations co-operation between different actors is extensive. Delegated power means that citizens have either decision-making power concerning certain plan or program or citizens have a veto-power in case disagreements cannot be solved with negotiations. Concerning small water restorations, landowners need to give their permission in order for restorations to be at all possible, which gives them sort of veto-power already from the beginning. Citizen power is attained when partnership or delegated power is achieved. Open availabilities throughout the decision-making process are very important for citizen participation.

Why is citizen participation such an important matter? For one, one of the main characteristic of governance is government's ability to ensure political transparency and accountability, as well as voice for citizens. The purpose of governance is to create optimal conditions for collective action. In the relationship between public and government as a part of democracy, it ought to be remembered that government belongs to its citizens. When good governance comes true, other interest groups besides authorities are able to participate in decision-making. Participation is therefore closely connected with good governance. Moreover, it is often interpreted that the existing worries of reduced citizen participation focus on the condition of legitimacy, which makes questions of legitimacy important. Without participation, decisions taken will not be legitimate nor will they reflect the will and values of the people. The fact is that it

will be difficult to gain legitimacy for decisions without active public involvement and communicative interaction. Open civic discussion is a prerequisite for the legitimacy and validity of democracy.

As a conclusion, it can be said that on one hand, the goal of the officials to get citizens to participate in restorations and to work together in collaboration has not succeeded so far. On the other hand, despite the fact that the public is not participating in small water restorations in a sufficient extent, the citizens are nevertheless more aware and worried about the state of small waters. The question therefore is, why is citizen participation still not enough in the area of caring for waters, and what could be done to increase it? However, in any case the decision to participate is the citizen's own and a government cannot force its citizens to participate.

#### *Evaluation of the research process*

This study could be realized in another way. Even though there were quite a mediocre amount of responses compared to expectations, the response rate was low. It might have been wise to make another kind of questionnaire, which might have increased the amount of responses. Moreover, there could have been two reminders. It is challenging to evaluate whether a different kind of questionnaire and another reminder would have risen the responsive rate though.

#### *Some further consideration*

Possible topics for future studies can be proposed on the base of this study. It would be interesting to study the attitudes of citizens who already have taken part in small water restorations; do they have similar views than those who have not yet participated. Another topic for future study could be to find out how water restorations have progressed in Finland and in Sweden and to compare how well the execution of the New European Union Water Framework Directive has come true in each country. Furthermore, citizen participation could be studied in other contexts besides water governance.

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## APPENDIX 1. Questionnaire in English.

**Landowner's attitudes towards care and restorations of small waters**

Cross/Circle those options that are closest to your view. **If there have already been small water restorations in your district, you may still answer the whole questionnaire or move over to question number 30.** Small waters refer to brooks, ponds, trickles and springs.

1. Are you a landowner nearby a small water (for example in the beach front of a brook or a pond)?

Yes  No

2. I utilize the small water district (You may cross several options):

- For fishing  
 For recreation  
 I am a permanent inhabitant in the area  
 For summer house settlement (cottage etc.)  
 Other, what: \_\_\_\_\_

3. What is the name of the small water area in your district?

- Lillån  
 Nörrskogsdiket  
 Krokån  
 Slössbäcken

4. What is your attitude towards the small water area in your district? (You may cross several options)

- Small water is a place for recreation (for example fishing),  
 Small water is an important part of nature in my district,  
 Small water creates a beautiful landscape in my district,  
 I do not experience the small area to be that significant,  
 Other, what? \_\_\_\_\_

5. If there were to be small water restorations in your district, would you be willing to participate in them?

a. Planning:

Yes  No

b. Realization:

Yes  No

6. In what way would you be willing to take part in possible small water restorations? (You may cross several options):

- To participate in voluntary work,  
 To operate as an expert in my own area,  
 By taking an initiative for restorations,  
 By gaining funding for restorations,  
 In other ways,  
 which? \_\_\_\_\_

7. What do you wish small water restorations would lead to in your district? (You may cross several options):

- Living conditions would be better,  
 Quality of water would get better,  
 Landscape would be more beautiful,  
 Tourist industry would grow,  
 The amount of fish in the water would multiply,  
 Area's magnetism would increase,  
 Value of real estate would rise,  
 Would increase biological diversity,  
 Other, what? \_\_\_\_\_

Please circle the right option, in your opinion, to each of the statements.

On a scale 1= totally agree, 2= somewhat/rather agree, 3= neutral/no opinion, 4= somewhat/rather disagree and 5= totally disagree.

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 8. It is important that the water area is in a sufficiently good condition, so that it can be used for recreation.  | 1 | 2 | 3 | 4 | 5 |
| 9. I regularly visit my small water area to admire its beautiful landscape.   | 1 | 2 | 3 | 4 | 5 |
| 10. I regularly visit my small water area to enjoy peace and quiet.   | 1 | 2 | 3 | 4 | 5 |
| 11. I visit my small water area to refresh myself (for example fishing or swimming).  | 1 | 2 | 3 | 4 | 5 |
| 12. The waters in my district should be renovated.  | 1 | 2 | 3 | 4 | 5 |
| 13. I am ready to small water restorations in my district, if possibilities for fishing get better and recreation usage becomes more reasonable.                    | 1 | 2 | 3 | 4 | 5 |
| 14. The diversity of aquatic nature is an essential reason for the need of small water restorations.  | 1 | 2 | 3 | 4 | 5 |
| 15. I am ready for my areas small water restorations, if the water gets into a better state with restorations.  | 1 | 2 | 3 | 4 | 5 |
| 16. I am highly motivated to take part in small water restorations in my area.  | 1 | 2 | 3 | 4 | 5 |
| 17. It is important that the information concerning small water restorations is given in a clear and concrete way.  | 1 | 2 | 3 | 4 | 5 |
| 18. The local knowledge of the inhabitants is needed when possible restorations are started.  | 1 | 2 | 3 | 4 | 5 |
| 19. During possible restorations sufficient and continuous amount of information about the restorations and their impacts is important.                             | 1 | 2 | 3 | 4 | 5 |
| 20. I wish that during restorations co-operation between different actors (e.g. individual people, partners, officials, summer inhabitants and firms) is extensive. | 1 | 2 | 3 | 4 | 5 |
| 21. In my opinion, small water restorations are possible if it does not incur for me to loose income.   | 1 | 2 | 3 | 4 | 5 |
| 22. The most important thing for me is that I get financial benefit from my district's small water.   | 1 | 2 | 3 | 4 | 5 |
| 23. I am ready for my areas small water restorations, if I do not need offer financial support for them.  | 1 | 2 | 3 | 4 | 5 |
| 24. I see the meaning of my district's small water as important.  | 1 | 2 | 3 | 4 | 5 |
| 25. Human action has had a negative impact on the state of my district's small water.   | 1 | 2 | 3 | 4 | 5 |
| 26. The state of my small water area has impaired   | 1 | 2 | 3 | 4 | 5 |
| 27. It is important that fish and water plants feel great.  | 1 | 2 | 3 | 4 | 5 |
| 28. Waters are at their best at their natural state.  | 1 | 2 | 3 | 4 | 5 |
| 29. The state of my district's small water is good.   | 1 | 2 | 3 | 4 | 5 |

**The next questions are for those who have already taken part in restorations previously. Others move to question number 31.**

30. Have you previously participated in small water restorations?

Yes  No

a. Which water did you renovate? Name of the water and place the water is located in.

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b. In what way did you take part in restorations?

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c. What kind of advantages/disadvantages have the restorations caused in your opinion?

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d. What kind of information, in your opinion, is needed of the restorations and how should it be given?

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31. Gender.

1  Male

2  Female

32. Which age group do you belong to:

- Under 29-y.
- 30 - 39-y.
- 40 - 49-y.
- 50 - 59-y.
- Over 60-y.

33. Educational background. *Cross only your highest level of education.*

- Comprehensive school (elementary school)
- Matriculation
- Vocational school
- College-level training
- Polytechnic
- University- or academic degree
- No vocational degree
- Other education, what?

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## APPENDIX 2. Questionnaire in Finnish.

**Maanomistajien suhtautuminen pienvesien hoitoon ja kunnostuksiin**

Rastittakaa/ympyröikää ne vaihtoehdot, jotka parhaiten vastaavat näkemystänne. **Mikäli alueellanne on jo tehty pienvesikunnostuksia, voitte silti vastata koko kyselyyn tai siirtyä kysymykseen numero 30.** Pienvesistöillä tarkoitetaan puroja, lampia, noroja ja lähteitä.

1. Oletteko maanomistaja pienveden lähistössä (esimerkiksi puron tai lammen ranta-alueella)?

Kyllä  Ei

2. Käytän pienvesialuetta (voitte rastittaa useamman vaihtoehdon):

- Kalastukseen  
 Virkistykseen  
 Olen vakituinen asukas pienvesistöalueella  
 Kesäasumiseen (mökkeilyyn tms.)  
 Muuhun, mihin: \_\_\_\_\_

3. Minkä niminen pienvesistö alueellanne on?

- Lillån  
 Nörrskogsdiket  
 Krokån  
 Slössbäcken

4. Mikä on suhtautumisenne alueenne pienvesistöön? (Voitte rastittaa useamman vaihtoehdon)

- Pienvesistö on virkistyskäytön kohde (esim. kalastamiseen),  
 Pienvesistö on tärkeä osa luontoa alueellani,  
 Pienvesistö luo kauniit maisemat alueelleni,  
 En koe pienvesialuetta kovinkaan merkittäväksi,  
 Muu, mikä? \_\_\_\_\_

5. Jos alueellanne ryhdyttäisiin pienvesikunnostuksiin, olisitteko valmis osallistumaan niihin?

c. Suunnitteluun:

Kyllä  Ei

d. Toteutukseen:

Kyllä  Ei

6. Millä tavoin olisitte valmis osallistumaan mahdollisiin pienvesikunnostuksiin? (Voitte rastittaa useamman vaihtoehdon)

- Osallistumalla talkootyöhön,  
 Toimimalla oman alueeni asiantuntijana,  
 Tekemällä aloitteen kunnostuksesta,  
 Hankkimalla rahoitusta kunnostukselle,  
 Muuten, miten? \_\_\_\_\_

7. Mihin toivoisitte, että pienvesikunnostukset johtaisivat alueellanne? (Voitte rastittaa useamman vaihtoehdon)

- Asumisviihtyvyys lisääntyisi,  
 Veden laatu parantuisi,  
 Maisema kaunistuisi,  
 Matkailuelinkeino vahvistuisi,  
 Kalojen määrä vesistöissä lisääntyisi,  
 Alueen vetovoimaisuus lisääntyisi,  
 Kiinteistöjen arvo nousisi,  
 Lisäisivät biologista monimuotoisuutta.  
 Muuhun, mihin? \_\_\_\_\_

Olkaa hyvä ja merkitkää ympyröimällä mielestänne oikea vaihtoehto kunkin väittämän kohdalle.

Asteikolla 1= täysin samaa mieltä, 2= jokseenkin/melko samaa mieltä, 3= neutraali/ei mielipidettä, 4=jokseenkin /melko eri mieltä ja 5= täysin eri mieltä.

8. On tärkeää, että vesistö on tarpeeksi hyvässä tilassa, jotta sitä voi käyttää virkistykseen.	1	2	3	4	5
9. Käyn säännöllisesti ihailemassa alueeni pienvesistön kauniita maisemia.	1	2	3	4	5
10. Käyn säännöllisesti alueeni pienvesistössä nauttimassa rauhasta ja hiljaisuudesta.	1	2	3	4	5
11. Käyn alueeni pienvesistössä virkistäytymässä (esimerkiksi kalastamassa tai uimassa).	1	2	3	4	5
12. Alueeni vesistöjä tulisi kunnostaa.	1	2	3	4	5
13. Olen valmis alueeni pienvesistökunnostuksiin, jos kalastusmahdollisuudet paranevat ja muu vesistön virkistyskäyttö tulee mielekkäämmäksi.	1	2	3	4	5
14. Vesiluonnon monimuotoisuus on yksi keskeinen syy kunnostustarpeille.	1	2	3	4	5
15. Olen valmis alueeni pienvesistökunnostuksiin, jos vesistö saadaan parempaan tilaan kunnostusten avulla.	1	2	3	4	5
16. Olen erittäin motivoitunut osallistumaan alueeni pienvesistön kunnostuksiin.	1	2	3	4	5
17. On tärkeää, että vesistön kunnostuksiin liittyvä tieto ilmaistaan selkeästi ja konkreettisesti.	1	2	3	4	5
18. Aukkaiden paikallista tietoa pienvesistöstä tarvitaan mahdollisiin kunnostuksiin ryhdyttäessä.	1	2	3	4	5
19. Mahdollisten kunnostusten aikana riittävä ja jatkuva tiedotus kunnostuksista ja niiden vaikutuksista on tärkeää.	1	2	3	4	5
20. Toivoisin, että kunnostusten aikana eri toimijoiden (esim. yksittäisten ihmisten, osakaskuntien, viranomaisten, kesäasukkaiden ja yritysten) välillä on laajaa yhteistyötä.	1	2	3	4	5
21. Vesistöjen kunnostus on mielestäni mahdollista, mikäli siitä ei aiheudu minulle tulonmenetyksiä.	1	2	3	4	5
22. Tärkeintä minulle on, että saan taloudellista hyötyä alueeni pienvesistöstä.	1	2	3	4	5
23. Olen valmis alueeni pienvesistökunnostuksiin, mikäli minun ei tarvitse toimia kunnostusten rahoittajana.	1	2	3	4	5
24. Koen alueeni pienvesistön merkityksen tärkeäksi.	1	2	3	4	5
25. Ihmistoiminta on vaikuttanut alueeni pienvesistön tilaan heikentävästi.	1	2	3	4	5
26. Alueeni pienvesistön tila on huonontunut.	1	2	3	4	5
27. On tärkeää että kalat ja vesikasvit voivat hyvin.	1	2	3	4	5
28. Vesistöt ovat parhaimmillaan luonnonmukaisina.	1	2	3	4	5
29. Alueeni pienvesistön tila on hyvä.	1	2	3	4	5



**Seuraavat kysymykset koskevat kunnostuksiin jo osallistuneita. Muut siirtyvät kysymykseen numero 31.**

30. Oletteko ollut aikaisemmin mukana vesistöjen kunnostuksissa?

Kyllä  Ei

e. Mitä vesistöä kunnostitte? Vesistön nimi ja paikkakunta, jossa vesistö sijaitsee.

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f. Millä tavoin osallistuitte kunnostuksiin?

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g. Millaisia hyötyjä ja/tai haittoja kunnostukset ovat mielestänne aiheuttaneet?

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h. Millaista tietoa mielestänne kunnostuksista tarvittaisiin ja miten sitä tulisi antaa?

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31. Sukupuoli.

1 \_\_\_\_\_ Mies

2 \_\_\_\_\_ Nainen

32. Mihin ikäryhmään kuulutte:

- Alle 29-v.  
 30 - 39-v.  
 40 - 49-v.  
 50 - 59-v.  
 Yli 60-v.

33. Koulutustaso. *Rastittakaa vain korkein koulutuksenne.*

- Peruskoulu (kansakoulu)  
 Ylioppilastutkinto  
 Ammatillinen koulu  
 Opistotasoinen tutkinto  
 Ammattikorkeakoulu  
 Yliopisto- tai korkeakoulututkinto  
 Ei ammatillista tutkintoa  
 Muu koulutus, mikä?

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