

FOREST POLICY ANALYSIS

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by

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FOREWORD

Although forest policy is an established course in most European university forestry curricula, apart from a special predilection of the teacher, its content varies from country to country according to the position of the forest sector in the domestic economy and society. In some countries, forestry is the backbone of a strong wood-processing industry, in others, recreational uses and amenity values of forests dominate. Despite these differences, all countries have in common the fact that the diversity of interests in forests has increased. Although timber production will not lose its importance in the future, as timber is a renewable resource, the demand for non-wood products and services has increased considerably. This is best reflected by the new notion of sustainable forest management which strives at the reconciliation of economic, ecological, social, cultural and spiritual interests in forests. In addition, the diversity of stakeholders has increased. Forestry is no longer solely the topic of forest associations and forest administration, but also of a multitude of governmental and non-governmental organisations dealing with activities which either affect forest management or are affected by it. Finally, the relationships of the various stakeholders, with diverse interests and varying empowerment, have become more complex, because in some issues the relationships are compatible, and in others, not. Bargaining on forest issues no longer takes place on a national level alone, but also on European and international levels, because many forest policy issues are transboundary. The increased diversity, variety and complexity of forest issues has rendered forest policy an independent field of political science, namely forest policy studies.

With this book entitled "Forest Policy Analysis" Max Krott, Professor of Forest Policy at the Georg-August University in Göttingen, provides an introduction to this special field of political science, based on his German textbook on forest policy published in 2001.¹ He applies policy analysis to the regulation of forest policy issues in Germany and the rest of Europe. **Forest policy analysis divides the forest policy process into the phases of policy formulation, implementation and evaluation.** At the outset of the political process there are conflicts of diverse interests in forests which should be regulated by means of the appropriate programmes. Participants in the political process are the various forest users, interest associations and

¹ Krott, Max (2001): Politikfeldanalyse Forstwirtschaft: Eine Einführung für Studium und Praxis. Parey Buchverlag im Blackwell Wissenschafts-Verlag, Berlin.

political parties, as well as government and public administration. They are interlinked by way of communication and exchange of their resources, and they attempt to enforce their interests by means of information, persuasion and power. For this purpose, informational instruments (e.g., advisory services, public relations), economic instruments (e.g., subsidies, certification), and regulatory instruments (e.g., laws, EU directives) are available.

Policy analysis represents an appropriate reference framework for employing the theory of political science and other social sciences to explain political phenomena in the forest sector. The author intends to make the reader familiar with this approach, as well as with its potential results. The student will receive an introduction to forest policy analysis, and the forester involved in policy-making will receive orientation for his own work.

The European Forest Institute (EFI) has been supporting forest policy research and studies since its foundation in 1993. Policy analysis is one of the four programme research areas aiming in particular at forest policy issues of European significance. Furthermore, the EFI has been the sponsor of the European journal “Forest Policy & Economics” of which Max Krott is the editor-in-chief. And now the EFI is presenting a series of books on forest policy studies in order to disseminate the scholarly findings in this area among potential users. With the present first volume, Max Krott continues his outstanding contributions to forest policy studies. The editors acknowledge his engagement in this field and wish him the due acceptance and dissemination of this publication. The present book constitutes an important foundation on which forest policy research can be further developed.

Peter Glueck, Vienna
Birger Solberg, Aas
Ilpo Tikkanen, Joensuu

Editors of the series “Forest Policy & Economics”

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CHAPTER 1

PROFESSIONALIZATION OF FOREST SECTOR POLICY MAKING

The concept of the forest sector as a peaceful green sector, far removed from any problems, constitutes a false image of forestry in Europe today. Pollutants, climate change and the utilization of forestlands are stressing the forest ecosystem. The economic leeway of forestry enterprises is diminishing; small forest owners are giving up their forestry enterprises; state forest offices are closing; and some aspects of sustainable forest management, practiced over centuries, are even being criticized nationally or internationally by environmentalists. The forest sector rightly refuses to accept such problems as the inevitable consequence of economic and social developments, and is demanding political solutions to end the crisis. Yet whoever becomes involved in forest policy will experience an endless political process in which numerous conflicts may arise as a result of any one specific problem. In the phase of confrontation, practical arguments and legal claims are made for the purpose of lobbying, rather than on the basis of their content. The solutions found with such great effort are only applicable as long as they have the support of the powerful stakeholders. On the whole, fast-changing political support, vacillating alliances, as well as the varying strength of practical arguments and bases for decision making, render it difficult to predict the results of political resolutions. In comparison to the great effort required, the rate of success always remains very modest.

Those involved in the field can become influential forest policymakers on the basis of their persistence and refusal to give up despite the endless labyrinth of politics, rather than on account of a speedy rate of success. However individual policymakers have achieved surprising effects by tipping the scales of power and interests and gaining a new margin for action. A pollution protection bylaw has been passed despite the resistance of the powerful automobile industry lobby; national parks have been created despite the concerns of landowners; forest promotion programs have been initiated; and hunting quotas have been altered in view of making it easier to reduce the overpopulation of wild game. Whether or not a lesson can be learnt for the future from forest policy conflicts, no matter whether they are won or lost, is the central issue and the challenge which faces forest policy

studies. As an empirical field of study, it responds affirmatively. It attempts to identify the success factors of the forest policy process using its own methodology, as well as to document them in theories. Consequently, these scientific findings are to be made available to policymakers to provide them with a better basis for choosing their political strategies. Forest policymakers advised by scholars have the advantage of being able to make use of the scientifically systemized findings compiled by scholars over decades of forest policy making. They can thus avoid the trial and error of their own experimentation in the policy-making process.

This introduction to forest policy in Europe is intended to provide the basis for such a professionalization. **Professional forest policymakers can be characterized by the fact that they correctly evaluate their own strengths and weaknesses, as well as their scope of action in the political environment.** To do this, however, they require a wealth of detailed facts, as well as the personal competency for taking action, neither of which can be conveyed by this book. Yet it should succeed in illustrating the basic power processes in forest policy making to the reader. **Although the political regulation of forest management always involves power, one of the principles of political practice is to cover up power processes to increase its effectiveness for the purpose of realizing self-interests.** Forest policy analysis takes a contrasting approach here. Scholarly analyses do not have any personal stake in the forest and can therefore afford to deal openly with power processes. However, it is precisely this contrast which makes scholarly findings interesting for the forest policymaker and renders them useful for his or her own application.

In the political analysis of forest management, the diverse interests in protecting and utilizing forests come into the focus of attention first. If forest users did not have so many different goals, from timber production to recreation and climate or biotope protection, then less conflicts and problems would arise for individuals and society as a whole. Due to the great diversity of their interests, their position in public opinion and their psychological dimension, they influence forest policy, thus becoming a topic of forest policy studies.

Policy making counters self-interests with general programs which standardize public goals for the protection and utilization of forests and provide instruments for their implementation. The content of federal or state Forest Acts essentially constitutes a forest policy program. Political analysis examines the content of these programs and their strategies which are intended to influence human behavior. Special emphasis is given to

illustrating how the various instruments function, whereby a differentiation is made between informational instruments, mandatory instruments, economic instruments and planning instruments.

Political confrontations can only be explained if the positions and the activities of the political players are also taken into consideration. On site in the forest, it is the state or private forest owners, the forest workers and employees, as well as the residents, who are behind the conflicts of utilization. Their declared interests, as well as their vested interests, also need to be illustrated, in addition to the instruments of power used to integrate them in forest policy. The associations, whether they be forestry or environmental protection associations, play an important role in forest policy along with state administration bodies, in general, and state forest administration, in particular. Important decisions in forest policy cannot be made without the participation of top-level administration, parliament and the political parties. The means of cooperation between the various political players, in drafting and implementing forest policy, are illustrated by the model of the political process which is summarized in the final chapter.

The elaboration of forest policy studies involves the various aspects of the forest sector and political science. Forestry aspects, such as the forest area, timber production, forest rejuvenation and forest damage, etc. will be brought into connection with the respective political institutions and processes. Only by this means, is it possible to describe policy making in the forest sector with the terms used in political science. For example, there is no such thing as a "theory of forest owner associations." However, if described in terms used in the general theory of political associations, then comprehensive political findings on associations can elaborate the role played by forest owner associations in forest policy. Of course, not all political science findings are relevant to forest management, yet whenever clear social scientific terms and related political factors indicate a connection to political science, those cumulative research findings can be applied to analyze problems in forest policy.

This book can be seen as a bridge between the forest sector and political science. However it is not a simplified form of political analysis. On the contrary, its application to the field of forest policy is an endurance test for the performance of political science theory. Only those political science theories, which are backed by precise terms and definitions, can contribute towards describing and elaborating the process of forest policy. It is the task of forest policy studies to find the most suitable theory. The search for it involves recording developments in the forest sector in the form of

politically relevant factors, such as the associations, informal goals, incrementalism, joint alliances, etc., which are introduced in this book.

The empirical-analytical political theory, applied herein to political players and processes, is of general informative value, meaning it provides descriptions and elaborations of forest policy, comprising the key factors for the countries of Europe. However the examples cited do not claim to be equally relevant everywhere in Europe. The European forest sector is so diverse that the examples are only fully valid for one specific country. Moreover, these examples cannot be applied directly to other countries. For example, there is a central state forest administration in some countries, whereas separate administrative bodies have been established for state forestry enterprises and general forest administration in other countries. The individual forms of administration can therefore neither be directly compared, nor directly applied. However, the formal and informal action orientation of state forest administration, its power resources and its margin of action are determined by those political factors which are described in political science theory and which define the power resources and the information and negotiation processes in each administrative organization.

The universal validity of the theory, on the one hand, and the limitation of the examples to specific countries, on the other hand, are correlated in this book using the following approach. Forest policy is elaborated on the basis of empirical-analytical theory, and the content is structured according to the policy concept summarized in the final chapter in the form of theoretical references. The cited examples are all based on Germany. They merely serve to enhance the theoretical description and elaboration of forest policy. Only the theoretical descriptions and the elaborations are directly relevant for other countries. The German examples render the theories more easily understandable, however they are not at all meant to be models for other countries. On the contrary, the author has even taken the liberty of openly elaborating critical issues on the basis of German forest policy.

The theoretical orientation and references made according to the example of Germany also determined the literary references. A comprehensive survey of German-language literature is given in this book. Reference is also made to further European literature on forest policy, if it is available in English and is of particular relevance and topicality. The book recently published by Fraser in 2002, "Making Forest Policy Work," elaborates essential factors of forest policy based on global experience and is illustrated with examples. In contrast to the present introduction to forest policy, however, Fraser does not illustrate the systematic connection to political science, instead he

emphasizes practical aspects in the context of his own forestry concept. Concerning American forest policy literature, reference should be made to the two American classics on forest policy, with special regard to social science, published by Ellefson (1992) and Cabbage et al. (1993). Both of these textbooks are also suitable for the purpose of establishing links to further English-language literature.

At the end of each chapter, references have been made to relevant forest policy research. This summary concentrates on selected publications in which specific literature, not covered in this textbook, is comprehensively documented. On account of the extensive social scientific research in international and German-language forest policy research, these references will not easily be outdated in terms of their findings, however they will require the further supplementation of new insights.

On the whole, the reader should become familiar with the concept of policy analysis in the forest sector, as well as its most important findings. The student will be introduced to the field of social science in forestry; whereas those active in forest policy making will find critical standards, which differ in many ways from common patterns of thinking in the forest sector, for evaluating their own experience. According to the concept of empirical political research, whenever an individual's practical experience contradicts theoretical findings, his or her practical experience should be considered valid. Yet it is to be expected that superficial contrasts between the findings of this book and practical experience in forest policy can be positively resolved upon closer scrutiny, when additional political factors become visible, even though the descriptions and theoretical elaborations may not be directly comparable to one's own observations. This broad, in-depth view of the familiar landscape of forest policy will enable anyone involved in forest policy making to draw new conclusions on the basis of forest policy studies.

CHAPTER 2

INTERESTS AND CONFLICTS IN THE FOREST SECTOR

2.1. Interests as the Driving Force of Politics

"Nowhere is the newly acquired power of those, who profit from nature, or their reactionary master-of-the-house airs, clearer than in the areas which were previously allotted the highest level of legal protection in better times: Germany's national parks.... The Minister of Agriculture personally called... upon the farmers to use their tractors to tear down the gates which were to have lawfully protected the National Park Unteres Odertal. And now on the North Sea coast, those who profit from nature – fishermen, farmers and restaurant owners are openly rebelling and resorting to threats of violence against the unpopular little twin National Parks of Schleswig-Holstein and Niedersächsisches Wattenmeer. "Put the biologists behind bars!" and "Long live the Greens – hang one from each tree!" read their placards. (Example 1: source: Stern 1996).

The confusion, contradictions, selfishness, hypocrisy and unfair attacks in the course of this political conflict concerning the national park (cf. Example 1) characterize the political process. The question is whether, despite the confusion of practical politics, there might be steadfast positions hidden beneath the surface images, which determine the course of political conflict resolution. Do landowners really advocate the dismissal of a national park director one day, even employing violent means, only to become his good friend the next day, making their actions unpredictable; or do landowners regularly adhere to a certain action orientation? Action orientation, effective over long periods, can be found in all political processes and refers to 'interests' in social scientific terms.

Interests, based on action orientation, play a major role in determining all measures taken by politicians. Political players are be subject to legal obligations, and they acknowledge certain values and proclaim high goals. Yet, when it comes to the action they take, all these goals are hardly binding; politicians tend to follow their self-interests in as far as possible.

Interests are based on action orientation, adhered to by individuals or groups, and they designate the benefits the individual or group can receive from a certain object, such as a forest.

Since interests unveil the truth, they are not all openly displayed, but kept secret according to the respective tactics. And because interests determine the actions people take, they constitute one of the most important factors describing the political process. In general, interests constitute the cornerstone of modern social sciences (Abromeit 1993, p. 13) and, in particular, of pragmatic political analysis, ever since the writings of Niccolo Machiavelli dating from around 1500, for the purpose of rendering human political action clearly recordable and predictable, regardless of its outward diversity.

The interests determining the destiny of forests were not hidden from forest policy scientists in twentieth century Germany. Dietrich (1953, p. 16), for instance, warns of "difficulties and contradictions" between the individual groups of people, which need to be overcome in forest policy. Hasel (1971, p. 31) names harmony between common welfare and the contrasting interests in forests as a "key issue" in forest policy. Despite the practical scrutiny of interests by researchers, Glück (1976) was first to recognize interests as the driving force of all forest policy, rather than an unavoidable disturbing factor without which forest policy would run more smoothly. Adopting the analytical term of interests, a sound bridge was built to social scientific policy analysis, which is also used without restraint in policy analysis.

Interests are geared to the benefits gained by the political player or stakeholder. As is known, the forest provides a great number of diverse benefits; one only needs to think of timber, the protection afforded for settlements and transportation routes, water and climate protection or recreation space. Further benefits of forests are hunting, biotope protection reserves, or even land for property development. Various stakeholders can also see further benefits above and beyond those "forest products" mentioned. They want to be able to decide for themselves how they use forests, or they may want to boost their social prestige by calling themselves forest owners. The expectations regarding possible benefits span the entire political and social scope. In many cases, forest products are intended to

make a profit, and the sociopolitical field is called upon to fairly distribute the burden of forest maintenance. An overview of the possible benefits of a forest makes it clear that a statement of interests, which strives to elaborate the deciding political benefits for each stakeholder, would have to be highly diverse.

To reveal the key interests, the three dimensions of "ecology, economy and social factors" can be of help. As a rule, each interest is embedded in these three areas. The ecological aspect of an interest lies in its "material basis." Regarding the interest in timber production, this means the state of the forest, as well as the logging technique. Concerning the ecological dimension, policy analysis avails itself of the forest sciences, including forestry technology, whereas the economic aspect of an interest results from its interplay in the economic system. In practice, these interests are linked to cost and profit. Economic sciences, and particularly forest economics, provide information of this dimension. Finally, interests also have a social aspect. This comprises "non-material" aspects, such as the prestige of a forest owner, freedom of decision regarding a forest, the aesthetic experience of nature in a forest, objective management decisions, as well as anxieties or threats (Grundmann 1998). As a "non-material" dimension, the economy also counts among social relationships, in the widest sense. However, it can be viewed separately on account of its specific orientation towards "scarcity and efficiency" (Cansier 1993, p. 13). Social and cultural studies provide orientation regarding the social interests in forests. These three dimensions are not only helpful in properly defining the key interests, they simultaneously point towards their development, potential benefits and regulatory capacity. The realization of interests in timber production thus requires, for instance, both a correct estimate of the ecological production potential of the forest and a financial evaluation of the economic productivity of timber sales, as well as a social evaluation of the property rights and rights of disposition.

Interests can always be traced back to certain stakeholders, since they indicate only those benefits from which a stakeholder can profit. Timber production interests therefore have to be traced back to a specific forest owner to become a sufficiently precise analytical factor. This will not mainly focus on the beneficial goal of timber production. Instead, the forest owner casts his eye on making a profit, in addition to his other personal values. The question as to how the stakeholder identifies his interests in the forest results from this very connection. This constitutes an active process of interest-finding in which the stakeholder requires as much information as possible

about the various possible benefits, and chooses according to his own concept of assessment.

The free individual can recognize his interests on his own. This ideal vision has not only been the basis of free enterprise ever since Adam Smith, but also became a basic postulate of the philosophy of enlightenment through the hand of Immanuel Kant (cit. according to Abromeit 1993, p.15). According to the postulation and hope that the individual will recognize his personal benefits by himself, the economy offers a simple method for determining benefits or interests. In political practice, the expectations of economists are only fulfilled in the exceptional cases where the individual has sufficient information to freely determine his own objectives. In as far as he lacks the basis upon which to make his own judgement, the stakeholder will have great difficulty in realizing self-interests. For instance, due to his scanty knowledge of growth conditions, a forest owner might plant spruce trees where they could be badly damaged at an early stage by the wrong climatic conditions. In this case, the forest owner has incorrectly determined it to be in his interest to plant spruce trees. If he had been privilege to more information, he may have defined his interests otherwise. The subjective view of self-interests did not reflect the "objective" interests, i.e. the benefits which the forest owner may have gained by planting spruce trees in a site more suitable for them.

In practice, **the subjective view of the stakeholder deviates strongly from his interests** (Dahrendorf 1957), i.e. stakeholders do not sufficiently recognize the potential benefits provided by the forest. Yet the stakeholders do have many opportunities to investigate these potential benefits thus becoming the better advocate of their self-interests. **Realization of one's own potential benefits is closely connected to the term of interests and constitutes an important aspect of political activity.**

The standards by which stakeholders evaluate their potential benefits are also of diverse origin. Values play an important role. They provide orientation for the stakeholders by characterizing their life philosophies, as well as being an additional emotional anchor. The value systems of forest stakeholders are determined by a high estimation of timber production on the one hand, as well as of nature, on the other hand (Glück 1987; Krott 1989 (1)). A good deal of the interest in forests is geared towards the protection of nature. The change from "materialistic" to "post-materialistic" values, which Inglehart (1977 and 1995) determined in industrialized countries, meant an increase in the values of creativity, political participation and environmental protection in contrast to the values of economic stability and

order. This promotes a protective interest in forests. In addition to values directly related to the forest, politically and socially related values also deserve mention. The left-wing/right-wing scheme has determined stakeholders' views ever since the beginning of the 19th century. In this connection, the promotion of equality, democracy and the acceptance of foreigners are considered leftwing values, whereas rightwing values are represented by performance, hierarchy and order (cf. Prittwitz 1994, p. 20).

Since the stakeholders involved are mainly individual persons, it is only natural that needs also determine the standards. Needs are directly derived from the psychological and biological factors of humankind. The well-known classification according to Maslow, constituting a diminishing importance of 1) physiological needs; 2) security needs; 3) the need for belonging and love; 4) the need for respect; and 5) the need for self-actualization, illustrates these factors in relation to the determination of interests (Heinze 1981, p. 34). The psychological and biological needs of mankind, which have not yet been satisfactorily defined, make it all the more difficult to define this area of human interests. Despite the lack of clarity, the term of interests remains very useful in policy analysis, since it serves well to explain the action taken by the various stakeholders who use or protect forests.

2.2. Forest Policy for Regulating Conflicts of Interest

Each interest is primarily determined by a certain stakeholder's point of view. Yet when the various stakeholders and their different forest-related interests are brought together, a wide-scoped economic and social structure is formed. The main conclusion of this statement lies in the fact that society and economy are formed by individual interests, because a society formed by interests is fundamentally different from a holistic society formed upon the basis of a good social order. In a holistic society, each individual and institution has its fixed place; one member of society supports another in harmony. Interests deviating from the principle of "common welfare" constitute disturbing factors which are to be avoided. The aspiration or postulation of a society, in which all members naturally strive to attain a harmonious whole through reason or moral powers, has characterized political thinking since the times of Plato. In Germany, forest policy studies and forest policy practice have traditionally been strongly attracted towards a harmonious image of forest policy. For instance, the widespread concept of "multifunctional forestry" is an attempt to define the optimal use of the forest for the "common welfare" of the people (Dietrich 1953, p. 21). By

using wide-scoped forest expertise, it should be possible to ascertain which sustainable uses of forests are in the interest of common welfare. Those who advocate an environmentally friendly policy also argue strongly for rational standards of common welfare. Nature knows no compromise; a good social order can be derived from the laws of nature and the environment to ensure a sustainable economy and society in "partnership and harmony with nature" (Saretzki 1989).

The hope for a clearly recognizable 'good social order' with concern to forests, as well as forestry, is not inherent to the concept of interests. It does not perceive the forest industry as being environmentally compatible according to principle. Instead it assumes there are numerous policy fields formed by individual stakeholders, each with their self-interests in forests. Diverse conflicts characterize the *status quo* where a political order still needs to be found that can build upon interests. For those people following the concept of interests, this political approach appears to be more suitable for defining and regulating practical forest policy. In contrast, the concept of harmony runs the risk that only some interests manage to prevail in the name of a forest management which is supposed to optimally serve the common good. In addition to the concept of interests, expertise on optimizing forest management is also significant, however this does not constitute the keystone of forest policy.

When interests come together in a world of limited forests resources, conflicts are bound to evolve. Such conflicts involving forest owners wanting to utilize timber and environmentalists hoping to protect a biotope of old logs for wild orchids, e.g., represent the norm, and they manifest themselves in diverse manners. In practice, those utilizing and those protecting forests may pursue very different physical paths of action that are socially, familiarly, economically and culturally integrated. Policy making is only one of the diverse methods of conflict resolution.

Policy making is a social bargaining process for regulating conflicts of interest. Forest policy is that social bargaining process which regulates conflicts of interest in utilizing and protecting forests according to the programs of the forest sector.

Through the "social bargaining process," policy making differs from the conflict resolution efforts of individual stakeholders. Policy making should

be limited in definition to mean the actions of "society as a whole." The measures and tactics of individual enterprises or persons are important, yet they follow such diverse principles that they cannot be considered one and the same as the social bargaining process. They can be summed up under the term of "policy-related action." "Regulation" means that conflicts of interest are swayed in favor of political goals. Within the scope of the general definition of policy, the field of forest policy now requires definition. On the one hand the criteria for protection and utilization of the forest serve to set the limits. Yet, on the other hand, forest policy is characterized by the emphasis on forest policy programs. This outlines its contrast to forest-related environmental protection policy as a separate policy field.

The chosen definition of forest policy provides a good prerequisite for analyzing forest policy-related processes and new paths of practical action. To a great extent, it complies with the self-image of politics in the parliamentary democracy of Germany, as well as forestry practice (Krott 1996). Through its orientation towards the social bargaining process, which often implies a special role of the state, this definition of forest policy has much in common with the traditional view of German forest policy scholars, such as Dietrich or Hasel. The special reference to forest policymakers incorporates a basic aspect of Niesslein's concept (1985). The simultaneous compliance with a statement of interest includes this attribute which was emphasized by Glück (1976), in particular. The hope of achieving a fruitful combination of all these aspects is derived from the scientific basis of analytical policy theory (Windhoff-Heritier 1987) as well as successful, wide-scoped research based on this definition of forest policy (Krott 1990 (1)).

2.3. Conflict Resolution Based on Information and Power

Forest policy employs a great number of different measures for the purpose of regulation, such as legal prohibitions, sovereign supervision, advisory services or financial support. Despite the endless means of political intervention in forest-related conflicts of interest, their impact is based upon only two different elements of social bargaining, namely information and power (Krott 1990 (1)).

By means of information, the stakeholders can make themselves a picture of the real situation. They can determine which methods of utilizing the forest interest them, as well as the internal interconnections, i.e. between timber production and hunting wild game. Information is also needed to see how

the interests of other stakeholders are affected, as well as to find suitable measures for achieving a consensus of interests or warding off foreign usufruct claims. The most important aspects of information are clarity, consistency and truth in terms of corresponding to reality. Fulfilling these basic preconditions leads to multiple problems which are the subject of many social scientific theories (Brewer et al 1983). Information content is augmented by straightforward terminology that avoids logical contradictions and veritably reflects reality. Such statements closely describe conflicts of utilization and make allowance for comprehensive solutions. This ideal state of information needs to be sought in order for policy making to have the power of regulation. General policy stipulations, such as the goal of "multifunctional forest utilization," are without regulatory power as long as information criteria remain unclear concerning the type and scope of forest utilization and its optimization. **In political practice, regulatory processes encompass numerous formulations that are very poor in information content. The degree of quality in information is thus an important attribute for determining the regulatory potential or enhancing it by suitable reformulation.** Practical efforts towards improving forest policy regulations and respective scientific analyses are, for the major part, aimed at quality information. For instance, difficult issues pertaining to information need to be resolved by improved terminology and decision-making criteria for being granted financial support or contractual environmental protection.

By achieving a high information content, however, forest policy regulation has only taken the first hurdle towards becoming effective. **The second challenge involves its implementation, since even the best intentions cannot alleviate a conflict, if the corresponding stakeholders do not adhere to them. In this case, politics avails itself of power and forces those utilizing forests to adhere to certain limitations.** According to the classic sociological definition by Max Weber (1972, p. 28), **power can be described as the "probability that a person can assert his own will in a social relationship, despite resistance....". This is at issue in forest policy.** Those who utilize or protect forests are forced to subordinate their interests to politically determined programs in the face of conflicts. In contrast to its conciliatory self-image, political regulation only has little to do with a voluntary path of action. In actual fact, stakeholders and political players both avail themselves of power. In practice, power is a factor that comes in many forms and is often concealed where it is strongest – **the powerful do not need loud voices.** Power resists scientific analysis; all other aspects of forest policy are easier to discuss than that of power in this sector.

Since power is of such great significance for political regulation, policy analysis deals specifically with power, in all its different forms. Legally anchored power is simple to define in a nation, such as Germany, which is bound by the supremacy of law, because the laws dictate measures leading to forced imprisonment as a last consequence, if a person violates them. However, the hidden power of those profiting from forests, as well as that of the authorities making the regulations, has to be uncovered indirectly. Instruments of power and potential threats also point towards hidden power processes, even in cases where the conflicting parties have supposedly negotiated a voluntary agreement (Etzioni 1975). The "preconditioned obedience" apparent in administration, or the expert's influence based on his superior know-how, as well as the forest owner's potential to put up local resistance, are all examples of those power processes required to thoroughly describe practical forest policy.

By using information and power, forest policy can achieve three different types of conflict resolution (Krott 1990). By means of (1) raising public awareness via information, policymakers hope to influence the stakeholders' views that were formed according to their self-interests. Upon the basis of improved information, a process of "rethinking" is to take place, serving to alleviate the conflict. One great hope of the forest sector is that an increased availability of information will convince people that an increased use of wood products lies in their self-interest. An understanding of the advantages of using wood products should help to alleviate the conflict between total protection of forests and their utilization for forestry, as well as counteracting the need for forest protection areas with a logging prohibition. The use of information for the purpose of raising awareness is widespread and obvious in the forest sector. However, its political impact remains very limited in complete contrast to the great hopes and effort made.

Forest policy making has achieved far more success in regulating conflicts by using information to promote (2) practical solutions. A practical solution is a brilliant achievement simultaneously offering all those, who utilize or protect forests, greater fulfillment of their contradictory interests through intelligent forest management. In as far as clever silvicultural and technical procedures can save costs in timber production, as well as making concessions benefiting environmental protection and recreational interests, conflicts can be effectively eased. The traditional concept of multifunctional forestry offers a great potential of practical solutions along this line. Forest policy has an opportunity to strengthen practical solutions by promoting such concepts.

The limits of providing information and practical solutions are found wherever different interests in a forest cannot be realized simultaneously. The regulation of such conflicts follows a pattern of (3) negotiation. Various interests, instruments of power, threats, as well as executive power, are engaged until a regulation is found. Negotiating involves power in all its diverse forms. All the different instruments of power, including physical force, are represented in politics. The peaceful nature of forest policy regulation in Germany should not hide the fact that the utilization of forest resources is also the object of violent conflicts around the world.

These three types of conflict resolution have a direct impact on the various stakeholders and their interests. On the one hand, they are directly applied by the stakeholders in the course of the conflict, in as far as the information and power potentials of the stakeholders are sufficient. And on the other hand, forest policy enables regulative processes of raising awareness, practical solutions and negotiations to be promoted by means of additional information or executive power. Illustration No. 1 elaborates the interrelationships of forest users, various interests and forest policymakers. As far as conflicts evolve concerning interests in forests, the stakeholders involved will avail themselves of information and power to realize their respective interests. Such conflicts may also be resolved involving the public sector. As a social bargaining process, forest policy provides an additional opportunity to use regulatory pressure in a conflict by means of applying forest policy measures. Just as the individual stakeholders employ the forces of information and power, so do forest policymakers. However this constitutes a social bargaining process in contrast to the conflicts between the individual stakeholders.

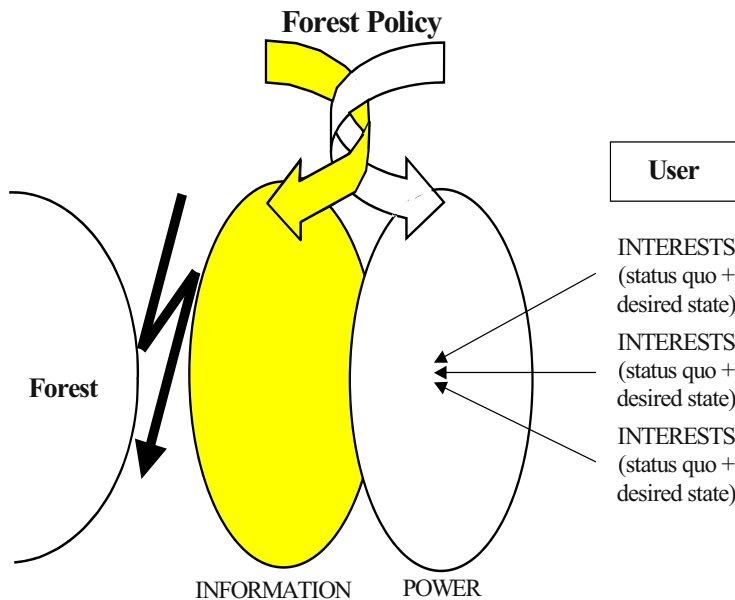


Illustration 1: Components of Forest Policy

2.4. Further Forest Policy Research

The important term of "interests," proposed in connection with the present definition of forest policy, was introduced by Glück (1976 & 1982) as a central concept of forest policy studies at the beginning of the 1980s. This term, which had only been marginally dealt with in forest policy studies in the past, became the focus of analysis at that time. Consequently, the majority of forest policy research in Germany, Austria and Switzerland adopted the basic notion that forest policy process can only be elaborated through close observation of the diverse interests in forests. The decision-making potential dealt with by Niesslein (1985; p. 113) is directed towards the potential forms of use for various stakeholders and also includes an aspect of the power processes which is the politicians' aim to gather votes. Essmann (1984) used a profile of preferences for researching forest conservation conflicts, which explicitly mentions conflicting positions of interest. Using a "call for conflicts," Krott and Maier (1991) developed a process by which the interests in protection and utilization of forests were able to be recorded in all their diversity. In an academic publication, Suda (1991) differentiated between various types of interests, according to Von

Prittwitz (1990), and illustrated their analytical applicability according to the example of "water protection reserves." In general, however, only a few publications have dealt comprehensively with the concept of interests, and usually this basic concept is part of an analysis based on other focal points. Yet it would only seem to be a question of time until the concept of interests becomes the focus of a critical discussion in political science (Abromeit 1993), and it is conceptually refined.

In the 1990s, scholars dealt with the various areas of the concept of interests. The expectations of the general population concerning the forest, which provide an important point of orientation for the establishment of interests, received a lot of attention amongst researchers. The analyses led to an important transformation in elaborating expectations regarding the forest sector. Early forest policy research preferred to analyze the expectations of recreationalists and the general population with concern to forests (overview in Schmithüsen et al. 1997). The popularity of certain tree species, or the value of forest functions, were determined with a methodological precision, which was initially low, yet improved increasingly. Despite modern statistics, these surveys only provide little information about the opinion of the people, because the surveys are too strongly oriented towards the notion of recreationalists and the general population in accordance with forest research concepts (Heeg 1971 & 1973). Numerous interviews are founded on the basic assumption that the recreationalist or the layman is a "hobby forester," for whom the type of silvicultural management, the tree species, or the evaluation of forest functions, play an important role. Researchers have trouble realizing that the average citizen is pursuing entirely different interests on his or her walk through the forest, rather than anything to do with tree species or silvicultural methods. The average individual experiences the forest as a part of nature, as well as a place for recreation and sports. And each individual experiences and/or values the forest differently. The present state of research confirms that we are dealing with more than one single person with one uniform list of expectations concerning the forest, and that the essential characteristics of a layman's view of the forest cannot be recorded in the terms used by foresters or forest scientists. In contrast those analyses, which are too highly influenced by the forest scientist's point of view, Annette Braun (1999) has succeeded in empirically describing the expectations of people from different social milieus with concern to the forest, under application of Schulze's milieu theory. The "elder woman," who experienced the shortages during World War II, will value the use of timber far more than today's average teenager, who grew up in a world of material abundance, and romantically views the

forest as pristine nature, above all. The progress of this finding lies in the equal weight allotted to the all the stakeholders' opinions regarding the forest and the world, in general. Only a deferment of the forest scientist's view makes it possible to register the expectations, experiences and opinions of various individuals, which form their interests concerning the forest. By drawing upon each stakeholder's individual view of the world, or the forest, as defined by the concept of interests, recent forest policy research has been able to record the political state of affairs in-depth.

The analytical and critical dedication of research to the forest user's own forest values results from the equal consideration of all interests. Forest sector values and interests are thus transformed from general standards, valid for everyone, to the subject of research, just like the values in any other field. Freidhager (1988) compares the values of the forest sector to those in the field of environmental protection. His results illustrate the diversity of values in both fields, as well as their common factors, which opens up numerous opportunities for alliances and negotiation in the practical application of forest policy. Schanz (1994) delves into the central concept of sustainable forestry in his empirical survey of forest office managers in Germany. Although all foresters value sustainability highly, the diverse interests of state and private forests are clearly apparent in their individual opinions. While state foresters would rather depend on improved planning and control, the others hope that securing sustainability will result in higher yields from timber sales on the market. With these analyses, forest policy research is on the right path towards a better elaboration of forest sector values in all their diversity, as well as internal sectoral conflicts.

Based on his own results concerning the concept of sustainability, Schanz (1996; p. 62) not only finds an indication of how interests are linked to value assessment, but also an apparent contradiction when various different concepts of sustainability are seen in those forest sector groups which have the same interests. His analysis touches upon the basic problem of interests, in that forest stakeholders are not only pursuing different values, but have also evaluated the potential of forests differently. For example, many foresters consider the forest to be a highly sensitive ecosystem threatened with collapse if it is too highly disrupted. Whereas some foresters consider the forest to be a largely self-regulating ecosystem which can independently overcome any disturbance. According to their basic convictions, the former group will be much more careful to use sustainable forest management, whereas the latter group might consider full-scale production or introduction of foreign tree species a method of sustainable production. The corresponding basic convictions of each individual are not random, rather

they are a result of his or her lifetime experience in family, the education system and everyday life. Using the "cultural theory" postulated by Thomson et al. (1990), Schanz adopts a social scientific theory for forest policy studies, which is suitable for explaining to some extent the development of world views, in general, and basic convictions about the forest, in particular. Since the factor of the "ideal culture" plays an important role for each stakeholder in recognizing self-interests, it can be applied towards an in-depth analysis of interests.

Interests provide an orientation for forest stakeholders concerning the state of the forest and their evaluation of it. However, they furthermore provide the motivation for the actions taken by forest stakeholders. This would mean that interests constitute far more than values, even if the latter be honest convictions. There is a current doubt as to whether values form a basis of action, albeit only to a very limited degree. This is why surveys on the values of small private forest owners, for example, do not provide sufficient information on the actions taken by them in practice. In addition to values, in the sense of a consistent publicly and/or subjectively desired state of affairs, the value assessment of how a forest can be affected also plays a role. Not only does the small private forest owner want to sell his timber for a good price; he also pays attention to the opinion of his neighbor, as well as the forestry administration office, regarding his timber production and the chance of successfully harvesting, transporting and selling his timber. Altogether, these considerations constitute the "timber production interests" of a small private forest owner. Judmann (1988; p. 24) illustrates according to the example of a small private forest in Baden-Württemberg that in-depth evaluations of diverse interests can be made based on the "Theory of Planned Action" developed by Ajzen & Fishbein (1980), as well as Ajzen & Madden (1986), which breaks down the motivation for taking action into the following three components: 1) the personal values established by the small private forest owner; 2) consideration of how his environment evaluates his actions; and 3) his estimation of how the forest can be affected. This analysis serves to further explain the active interest determination process.

The need for regulation through forest policy results from conflicts of interest in the forest. Most forest policy analyses choose states of conflict as the basis of their research, and have described these explicitly, particularly over the past decades. However a uniform set of terms and categories has still to be developed for conflicts of interest in the forest sector. The analyses usually proceed from a general illustration of the conflicts to the details of attempts at forest policy regulation, which constitute the focal point of research. Only a few studies are dedicated to the theme of conflicts,

including Hellström et al. (1995 & 1996) and Mann (1998). Mann refers to the sociological theories postulated by Endruweit et al. (1993) and develops a concept of conflicts with manifold dimensions. When applied to the forest sector in Germany, his analysis provides evidence of continuing conflicts among forest policy stakeholders, despite the public demand for a mutual concept. The stakeholders routinely get caught up in manifest conflicts of varying intensity. However these are the result of latent conflicts of interest and differing basic positions with concern to forest policy. The polarization of forest policy issues is strongest between the representatives of private forest owners, on the one hand, and the representatives of forest workers and employees, including the representatives of forestry groups with particularly environmentally friendly forest management concepts, on the other hand. The state forest representatives assume a position in the centerfield.

Hellström chooses to apply a very general concept of conflict, and this constitutes the focus of her comparative analysis. It deals with conflicts concerning values, interests, political programs, implementation, forestry production and other forms of utilizing the forest. She illustrates a multitude of conflicting issues in Germany, particularly between forestry and nature protection groups, regarding the protection, maintenance and management of forests. However the various individual conflicts have not escalated into a large-scale conflict concerning the whole German forest sector, or within it. Instead, the numerous small conflicts create constant pressure for the more widespread adherence to environmental standards in the forest sector (Hellström et al. 1996; p. 51). Conflicts, as unpleasant as they may be for those involved, will contribute towards the renewal of forest sector policy.

The two above-mentioned examples for general concepts of conflict theory illustrate the wealth of tasks which forest policy has to deal with. On the other hand, although it is obvious that important basic material is made available through the results of comprehensive conflict analyses, it remains too general to be of use in developing forest policy instruments. The goal of policy analysis is therefore to limit the concept of conflicts to the "political dimension," which is to be derived from the (forest) policy control mechanisms, as illustrated in the following.

In the scope of English-language studies on European forest policy, the concept of diverse interests in the forest, leading to conflicts, often finds basic application. With few exceptions (Ottisch 1998; Solberg & Miina (eds.) 1997), however, the analyses do not expand the concept of political interests and conflicts. Instead, they usually deal with economic concepts for the purpose of illustrating methods of optimization (Gong 2002; Tarp &

Helles 1995). With regard to interests, the dimension of values with most commonly examined (Pregernig 2001).

CHAPTER 3

PROGRAMS FOR FOREST PROTECTION AND UTILIZATION

Forest policy checks the unrestricted play of powers in the conflict concerning forest utilization. In terms of forest policy, it makes a difference whether roads and settlements encroach upon the forest, whether pollutants threaten the survival of the forest, whether the forest industry can no longer afford to manage and tend the forest on its own, or whether environmentalists are making an effort to have a certain forest excluded from logging. Policy-making facilitates critical evaluation of the problems cited in the above examples and is geared towards goals that were generally formulated in a social context for the forest. Policy making lays claim to actively organizing the protection and utilization of the forest in the interest of the public. It is oriented along the lines of programs.

A (forest) policy program constitutes statements by (forest) stakeholders made in a social context concerning the utilization and/or protection of a forest.

In practice, forest policy programs rarely exist in a comprehensive form. Instead, they comprise a great number of primarily public statements regarding forests. An important component of the programs is constituted by the corresponding laws. However, administrative guidelines and concepts of unions also contribute to programs. Contributions to forest programs include the "Forest Policy Concept" of the German Minister of Nutrition, Agriculture and Forests, (Brochert (1996) and the "Positions: Sustainable Forest Management" of the Trade Union "Bauen-Agrar-Umwelt (1996), as well as the "Position 30: Forest for the Future" of the Federal Government (1995) (as cited by Volz 1997). The "Bund für Umwelt und Naturschutz Deutschland" concept counts among the nature protection programs which are striving to gain competence over the forests and are competing with the forest programs. The "National Forest Program" (See Chapter 10 Land –use planning) is the most recent contribution to the forest program. The scientific term of "program" helps in systematically finding those "forest policy

statements" from amongst the diverse contributions, which provide political orientation in practice. In science a program is an instrument which supplies the clearest possible depiction of the practical positions.

Programs only take into account statements that have been made in a social context. Goals pursued by a forest user in his private sphere do not constitute programs. As long as environmentalists develop their own internal concepts about compatible forest utilization, they have not yet assumed the quality of a program. Only if these statements are brought into public debate, as was increasingly the case in the 1990s, do they become program contributions, since they are meant to help determine measures taken by forest policy making.

The political impact of programs depends upon three different dimensions: Programs define a certain policy based upon the (1) scope of a statement. They do this using (2) various qualities of information, and (3) diverse power strategies to underline the significance of their statements.

3.1. Scope of a Statement

Scope of a statement defines the program content. Here the forest sector is fundamentally separate from other task fields. Forest policy has a long tradition in Germany, which explains why the existence of separate forests programs, with the specific task of defining forest policy, are taken for granted today. However the forest sector is the result of active political organization which has formulated the tasks of maintaining and utilizing forests as independent "forest policy" programs. Since other forms of defining forest-related tasks are thinkable – such as including them in the agricultural sector, or forest sector, or natural resources sector – the sectoral definition is under constant pressure from other programs. Forest policymakers give their sector a name in their programs, as well as defining their task fields and detailing content. They claim to have a particular responsibility and competence for these tasks.

Forest legislation is a major pillar which serves to politically secure the forest sector. It is standardized in the Federal Forest Act as well as the laws and regulations pertaining to forests passed by the individual states of Germany. The Federal Forest Act defines the forest legislation framework, which can be broadened and consolidated by the states, since the states have the major legislative competency regarding forests (Klose & Orf 1998, p. 9). With regard to forest legislation, the German Republic and its states rely on

legislative competencies which have been standardized by the constitution or Basic Law of the Federal Republic of Germany. The legal competency results from reference to various articles of the Basic Law, which span everything from the promotion of forest products to nature protection and maintenance of natural landscapes, or property rights and regulation of ownership. In the division of tasks among the Republic and the states, forest legislation is founded upon exclusive competence (legislation is either drawn up by the Republic or the states); conflicting competence (legislation is drawn up by the states "in as far as" the Republic has not made use of its legislative competence); or framework legislative competence (the Republic draws up framework stipulations for the legislation of the states). On the one hand, the multitude of competencies upon which the legal regulation of forest utilization and protection are based, and the various stakeholders (the Republic and its sixteen states), which have drawn up their own forest legislation, open up a wide-scoped political margin for the structure and organization of the forest sector. Until the present time, the Republic and the states have for the main part clearly focussed the competencies on their own forest legislation thus giving the forest sector programmatic independence and significance. The independent status of the forest sector is under pressure from other sectors, such as that of nature protection and regional planning, which are also creating their own forest-related programs and are striving to avail themselves of legal competencies. The limits of the forest sector's political program are however not the same as "nominal" forest legislation. Instead they surpass the basic area in the form of influential forest programs which currently predominate in Germany. The forest sector takes on tasks, which are also to be included in the analytical instrument of a "program" in terms of "functional" forest legislation, which had its origin in areas of competency other than that of the forest sector.

The forest programs include "technical functions" and "basic rules of procedure." The technical functions of forest policy have been traditionally described as the "functions" of the forest ever since Dietrich (1953). Dietrich differentiates among the "land-area function" which includes the positive effects of the forest on climate, water management, erosion and landscape, as well as the primary-resource function, the working function, the income and asset functions. In recent times, the talk has also been of a cultural function which describes the role the forest plays for the whole culture (Harrison 1992). The scholarly discussion on forest policy has made use of the above to elaborate the functions of the forest, as well as those of forestry (Krott 1985). Three functions have merited special attention in practice and have become technical terms in forest legislation: (1) The utility function as

the epitome of the economic utilization of a forest in the form of income, jobs and assets; (2) the protective function as the totality of the physical, chemical and biological effects of the forest in the scope of the natural environment; (3) the recreation function as the effects of the forest on human wellbeing (Klose & Orf 1998, p. 45). These functions demonstrate the diverse uses of forests and lead us to a forest model which basically calls for us to take all of its uses into consideration and seek an equilibrium that is suited to the specific local circumstances. Striving exclusively to maximize the proceeds earned from timber production is explicitly condemned. These basic goals have characterized all forest programs for many decades. Leading representatives of the sector do not consider the discussions of the 1990s, which were distinguished by increasing ecological demands, to be a reason for departing from the goals of multifunctional forest policy.

The basic rules of procedure refer to those processes which define how forests should be utilized. The leading principles are sustainability, the market economy and democracy. "Sustainability" demands a long-term orientation for all forms of forest utilization. Speidel (1984) characterizes it as "...the capacity of a forestry enterprise (or of the forest, M.K.)..., to continuously and optimally provide timber production, as well as non-timber goods and services, for the use of current and future generations." The key to sustainability, namely the forest and its diverse uses in the present and future, dominates the present-day discussions in Central Europe (Schanz 1996; p. 42). The basic concept of forest sustainability, as has been discussed since the end of the 17th century (Steinsiek 1999), entirely corresponds with the concept of sustainability that the World Commission on Environment and Development formulated in 1987 (Brundtland Report, Hauff 1987), and the principle for dealing with natural resources that was standardized for world-wide implementation in 1992 at the "Earth Summit" or United Nations Conference on Environment and Development in Rio de Janeiro. It is in implementing programs for the individual sectors in the scope of various international initiatives that diverse problems arise concerning sustainability (Grayson, Maynard 1997). The realization of the principle decides how the forest should be used and for whom, to which degree and in which order. Issues arise here regarding a greater or lesser degree of economic interest in the forest in contrast to ecological interests, or issues regarding owners' rights and the population, etc., which affect forest sector concepts, in general. The struggle to find concepts for sustainable forestry serves to clarify the essence of the principle as well as its limits (Renn 1996). Sustainability is a basic standard for the temporal management of forest utilization. However it does not have any relevance upon the distribution of

the forest benefits among the various existing groups. Agreement concerning sustainable forestry leaves the issues of distributing cost and benefits unanswered, along with the majority of the political conflicts.

Of the two other deciding principles of forest programs, the principle of democracy will be elaborated in the following, whereas the norms of the market economy will be discussed within the framework of economic instruments. Democracy means the "rule of the people" (cf. Prittwitz 1994, p. 99). The principle of democracy demands that the political control is in the hands of the people, and that it is realized by the people in their self-interest. In the course of history, the principle of democracy has taken on many different forms, and presently has been standardized in the German constitution (Böhert et al 1988). The practical realization of this principle requires a process that ensures representation and participation. The opportunity for the people to directly participate in decision making is strongly anchored on regional and community levels, but only plays a very minor role in the forest sector. Most decisions are made by representatives, whose power is based upon legitimization by vote and an independent mandate, that is to say the right to make responsible decisions. Participation means that those responsible are involved in the process of forming a political goal. This process takes place in manifold ways. Representation through associations is of particular significance in the forest sector. The public sector and the basic principles of freedom of opinion, speech, assembly, demonstration and the press are the preconditions for democracy. In principle, all citizens should have access to public debates and may become involved in issues regarding the forest sector.

The democratic process of decision making gives citizens and their representatives the final word in political decisions concerning the protection and utilization of the forest. In practice, this means that laymen, or persons without expert training, can decide how to resolve issues regarding forests. In sectoral policy making, this results in the difficult problem of providing laymen with sufficient know-how. Both the exchange of information between (forest) experts and laymen, as well as the comprehensive resolving of special issues by the people and the politicians, pose a great challenge to democracy, which can lead to tension between experts and politicians (Zippelius 1994, p. 369; Krause 1987, p. 334). The more diverse the problems of protecting and utilizing the forest become, the stronger the need for the advice of experts in democracy. Even though forest experts are well acquainted with the issues and their possible solutions, they rarely find suitable means of sharing their expertise with the people and the politicians concerned (Krott 1994(1)). The democratic process is highly threatened by

the patronizing of experts, or lack of expertise leading to decision making that is based upon false assumptions about the forest. The problem of incorporating expertise in democracy takes on particular relevance in sectoral policy making, and even more so in the scope of economic decision making in forestry enterprises.

A further problem has accompanied democracy ever since its beginnings. Democracy expects the powerful to share their right of decision making with other social groups. In practice, the power of decision making is only handed over when a loud call has been made for involvement in a decision. Democratic rights are not voluntarily bestowed upon passive citizens or groups of them (Ucakar 1985). It is therefore unrealistic to assume that the present decision-makers in the forest sector consider it important to increase the democratic quality of forest policy. Democratization can only be promoted by those groups which do not perceive themselves to be sufficiently represented in forest policy making. In fact, democracy questions the existing decision-making processes in forestry. If democracy is to be meaningful, it cannot help but be a source of unrest for the powerful.

3.2. Quality of Information

The informative performance of political programs varies greatly in quality. General experience has shown that much remains unclear in forest policy concepts, declarations of intention made by political players, parliamentary speeches or party programs, and this is due to the incompleteness of statements which purposely cover up or conceal a great deal. Vaguely formulated goals cannot be realized for lack of information. The quality of information is thus an important aspect for recognizing the possible impact of programs.

The quality of information characterizes the clearly defined statements in a program.

The model of rational control provides a meaningful benchmark for the quality of information (Brewer et al. 1983). According to Jann (1985, p. 49) the elements of a rational program can be listed as follows:

- specific issues which need to be dealt with

- goals which are objects of the program
- postulations regarding the intended impact and its realization (impact stage), and
- information about the institutions concerned and their task fields (implementation stage).

Specific issues of forestry are always the logical point of departure for a program. For instance, the above-described forest policy concept designates the poor profits of forestry enterprises, the increasing demands society makes on forests, and the ecologically weakened state of forests as the central issues. This problem diagnosis has characterized the forest sector for decades. To be significant in keeping with ideal of rational politics, these issues have to be sufficiently defined on the basis of facts. To claim that profits are unfavorable is not sufficient, this has to be proven. The present-day political discussion among experts is not satisfied with the reference to individual forestry enterprises that are threatened with financial loss. Instead, its diagnosis is based upon comprehensive scholarly surveys of forestry profits. The availability of data, or the possibility of acquiring data, is decisive in the diagnosis of problems. According to the concept of rational politics, forest expertise, reinforced by science, should be fully and directly available to policy programs.

A program sets up objectives for solving problems. Strictly speaking, problems cannot be recognized as such, until a state of affairs is properly described on the basis of facts and evaluated according to the preconditions of specific objectives. Since problems are essentially missed targets, they are directly dependent on the set objectives. Whoever does not share the objective of financially independent forestry enterprises, cannot perceive the issue of profits. However determining objectives already means dealing with the specific aspects of these objectives, themselves. In the world of practical interaction, objectives have an effect upon each other, as a rule. An increase in profit-oriented timber production often has an adverse impact on the environmental or recreational qualities of a forest. Programs require that the interrelationships between goals, which can be neutral, augmentative or competitive, are comprehensively described. Goals can be organized in hierarchies of general targets and various kinds of specific targets. Priorities make it possible to easily set clear standards for goals in the face of conflicting objectives. The temporal dimension is particularly significant in forestry due to the production processes which are very long-term in contrast to other economic sectors. For all these issues, a well-developed tool has

been available to policymakers for decades for defining objectives along the lines of forest economic analysis (Kroth et al. 1976), and which has been comprehensively supplemented by the modern planning concept (Spitzer 1995). In addition to a scientific approach, setting objectives requires active and personally responsible evaluation by politicians, and this cannot be replaced by science alone.

The impact stage is based upon a course of action which is usually only implicitly evident in programs. The course of action makes certain postulations about the interdependencies involved in the issue. As is made evident by the new forms of forest damage, there is a great degree of uncertainty in determining the cause of problems in the natural sciences. There is even greater uncertainty concerning social and political courses of action. For instance, according to the representative survey by Schanz (1994, p. 49), German forest experts indicate the following threats to sustainability, listed according to their decreasing frequency: (1) anthropogenic environmental changes (70%); (2) the financial state of forestry enterprises (55%); (3) society (40%); (4) type of forestry and management (30%); and (5) abiotic and biotic damage (20%). Depending on the cause referred to by a program, measures even differentiate greatly for the same goals, and may include reducing environmental changes to forest protection. The rationality of a programs increases with the clear description of the assumed course of action.

The impact stage also includes details of instruments, target groups and intended impact. The impact itself can be characterized according to (I) the object of change; (II) the direction of change; (III) the degree of change; and (IV) the period of change. Determining the course leads to greater program quality in terms of rational control.

The implementation stage clarifies who should complete which tasks to conduct the program. The division of tasks between the state and private stakeholders is particularly significant. The valid criteria for the individual tasks include: where (place), what (object), how (instrument), when (time), by whom (institution), for whom (targeted body), and how much (volume).

Those making an effort to establish forest programs with a high informative quality are confronted with great problems pertaining to know-how and data in their attempt to comply with the standards of a rational program. Diagnosis of problems, setting of objectives and political measures can only be incompletely provided for the diverse uses of the forest ecosystem in keeping with the present state of know-how. In practice, political programs

are regularly far below the standards of rational programs. The unsatisfactory form of the programs should not be blamed on the oversight of politicians; it is unavoidable, since programs always simultaneously link power strategies to the stipulations required for regulation.

3.3. Strategies of Power

Programs exist in an immediate political context, in which the individual stakeholders are intent upon improving their positions. They not only judge the programs according to the scope of their statements and their informative quality, but primarily according to whether they will be able to use them to their own avail. First of all, programs need to find a minimum of acceptance with the stakeholders, otherwise they will not reach the stage of formulation. Their acceptance depends upon the kind of propositions they make as well as the way they are formulated.

3.3.1. Factual and Evaluative Statements about Forests and Forestry

Programs encompass two entirely different kinds of forest policy statements, which are to be distinguished as value-judgments (normative statements) and factual judgments (empirical statements) (Chmielewicz 1979).

Judgments concern ecological, economic or social facts and interrelationships about which empirically proven statements can be made.

The truth in factual statements can be determined by means of scholarly observation. This involves the entire scope of the laws of nature, which describe the natural resources and depict the useful or damaging effects they can have. Political players are not capable of changing the laws of nature, or passing legislation to undo damage already done. Facts and nature's interrelationships maintain their validity, regardless of whether or not they are accepted in political processes. Political power does not encompass the laws of nature, which constitute the absolute limits.

The factual statements made by a political program thus do need not to be confirmed or supported by politicians. Either they are empirically correct

(i.e., they can be observed in nature) or not. This sound basis established for findings and statements was an achievement of modern science. It has provided politics with valuable information about threatening problems and their possible solutions. Yet factual statements will not suffice to solve a single political problem. Only value-judgements provide orientation for the problem-solving process.

Value-judgements refer to desired standards. They provide people with directions for the right course of action.

Desired standards are the objectives set by the programs, including many instruments which stipulate the right course of action to be taken by the general public. Value-judgements claim a normative validity which is established over the course of the political process. There is thus a large organizational margin of play in politics for value-judgements. Neither experts nor science, itself, can force politics to comply with value-judgements. It may be a waste of time and energy to want to prove the great value of a mixed deciduous forest according to the science of forest ecology, since this value is based on human assessment, as determined by mankind and its institutions, rather than solely by the natural sciences.

Despite the organizational margin of play in value-judgements, politics by no means constitutes the only creator of values. For decision-making processes, politics primarily employs values that are anchored in society. A small sector such as forestry is highly dependent on the predominant values in politics and society to secure acceptance of objectives and interests relating to forests.

3.3.2. Strategies for Enforcing Value-Judgements

Policy making avails itself of different strategies for the purpose of enforcing value-judgements. A constitutional or democratic decision-making process legitimizes political evaluation of programs and strives towards harmonizing their (I) legitimacy, i.e. compliance with good social order and (II) legality, i.e. compliance with the law. The processes of forest policy formally attempt to combine utilization and protection of forests in the name of public welfare while adhering to a legal framework, i.e. in full harmony with legal stipulations. In contrast, the legitimacy of forest policy programs in democracy is based upon public debate. For the purpose of publicly

establishing standards, Habermas (1996) developed a model of discourse which lays claim to general validity. He suggests a discourse which leads to general public welfare by means of public access and "reasonable" argumentation, for which he lists further guidelines. The closer that forest policy making comes to this democratic ideal, the greater the legitimacy achieved by its forest programs. Further details will be discussed regarding the important formal tasks of forest policy in the scope of the decision-making process and information tools.

In addition to formal demands, informal strategies should also be mentioned at this point. These are not entirely openly employed, but this does not mean they are less effective. Forest policy programs can improve their acceptance with these strategies.

- **Acceptance based on empty formulas**

Empty formulas are extraordinarily effective in achieving approval. Unresolved issues are described in such general terms that neither party of interest can find anything disapproving. In legal programs there are so-called 'gray' legal concepts which require interpretation in each individual case. 'Sustainability' or 'multifunctional forest utilization' are often only generally cited in forest programs without any detailed description of meaning. For instance, the famous H1 Resolution of the Ministerial Conference on the Protection of Forests in Europe (Helsinki 16-17th June, 1993) stipulates that: "Sustainable forest management is the stewardship and use of forests and forest land in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions at local, national and global levels, and that does not cause damage to other ecosystems."

Groups with completely different interests in forests are able to agree with this definition, since it promises that "relevant ecological, economic and social functions" are to be fulfilled. Each and everyone may hope that his or her self-interests will be recognized and taken into consideration. The setting of general objectives and the ambiguous formulation "relevant... functions" cover up internal contradictions and signal a greater degree of consensus than actually exists. Only by means of this informal strategy did the international Helsinki Resolution achieve acceptance among the individual nations.

- **Acceptance based on short and long-term impact**

Political programs have various short and long-term impacts. Economic plans usually promise short-term advantages. Ecological programs are often disadvantageous on a short term, whereas they have a positive impact on the long term. The targeted selection of individual short or long-term effects enables programs to be presented in a particularly advantageous light. The programs for combating the new forms of forest damage, e.g., are currently based upon long-term impact, meaning large-scale damage that poses a future threat, since large-scale damage does not usually take place in the forest on a short term.

- **Acceptance based on partial facts**

The strategy of acceptance based on partial facts begins with the targeted selection of arguments and the elaboration of the problem, the solutions, and the cost and benefits instead of the time factor. From a wealth of facts, only those which support one's own position are brought forth as arguments. Acceptance on account of partial facts is always based upon the factual truth, yet it nevertheless generates an image geared towards certain interests because of the unilateral choice of arguments.

- **Acceptance based on falsehoods**

Acceptance based on falsehoods involves the introduction of factually false claims. As long as the other side does not see through the false claim, false acceptance can achieve a high rate of success. For instance, companies that pollute the environment often try to claim that their emissions are completely harmless, until the damage can be proven in each individual case.

- **Dogmatic acceptance**

The credibility of a value-judgement increases with the reference to universally valid standards. Political ideas from socialism or nationalism to democracy and free enterprise prefer to cite those general dogmas and natural laws which are said to be true. Religious, political, economic and ecological dogmas are characterized by the fact that they do not seriously consider any counterarguments. If forest programs cite environmental compatibility as their standard goal and consider it their general obligation to take courses of action that are "close to nature" without exception, they are

establishing a dogmatic argument. In practice, dogmatic program statements may have a considerable political impact.

- **Ideological acceptance**

Ideological argumentation makes its claim to truth by camouflaging value-judgements as apparently factual statements. Empirical evidence is provided for the factual statements to provide fictitious proof. A very common ideological formula is the so-called "Wake Theory" (Glück 1982). It claims that a properly managed forest simultaneously fulfills all expectations made by the public. This statement is correct with regard to many forested areas where there are no conflicts of use. However in forests where there are conflicts of use, asserting the validity of the Wake Theory means denying the conflicts, since it claims there are no conflicts in forests which are properly managed. The Wake Theory uses this fictitious proof to legitimize the management of an entire forest region in the face of criticism. The open value-judgement would be the goal of utilizing the entire forest for production. The ideological legitimization is provided by the fictitious proof that the other expectations of the forest would be served best, since "most welfare effects (follow) in the wake of normal forestry management..." (Rupf 1969, as cited by Glück 1982). Ideological argumentation has a deep and long-lasting impact on political conflicts, since the hidden reference to values is rarely transparent. Those politicians employing such an argumentation generally believe the apparently factual arguments themselves, and hotly refute the critical unveiling of their arguments as an ideology.

- **Symbolical acceptance**

Concepts gain additional acceptance through the use of symbols. Condensation symbols do not indicate a special meaning; instead they indicate the fear of impending dangers and/or the hope for a solution (Edelman 1990). Like a banner on the battlefield, a condensation symbol provides orientation and hope in a dangerous situation. However it does not have an exact meaning. Condensation symbols always have a strong impact when the general public do not have sufficient understanding of a problem. Since an individual person usually does not or can not know enough about the problems, symbols play an important role in the acceptance of political programs. The general public is not always able to understand the complex threat that emissions pose to the forest. However the symbol of "acid rain" confers the idea that the forest is threatened by emissions and that political

action must be undertaken to prevent it (Krott 1987). Although the information is symbolical and its meaning is therefore entirely indeterminate, it still has a strong political impact. German society has allotted a great number of symbols to the forest; and symbolical communication thus plays a decisive role in forest policy, whether this is intended or not.

3.4. Further Forest Policy Research

Forest policy programs have received varying degrees of attention as a topic of forest policy research over the past decades. The high phases of the programs cover everything from central research issues concerning traditional normative forest policy studies to analytical regional planning research in the forest sector and the current discussion on national forest programs, however economic program analyses are lacking entirely.

The major research topic of normative forest policy research concerns the optimum forest sector program (Dietrich 1953; Hasel 1971). Niesslein (1964) makes a comprehensive proposal for Austria in his book entitled "*Aufgaben der Forstpolitik in Österreich*". The scholarly argumentation for this program is very similar to the programmatic statements made by experts in the field, i.e. when they were aiming towards a long-term overall concept for the Swiss forest and wood-processing industry (Tromp 1970). In Germany, Plochmann (1976 & 1982), among others, has published contributions on the orientation of the forest industry, combining an analysis of existing programs with his own programmatic assessments. The list of normative programmatic statements in forest policy studies could be continued to the present times without any effort. However they became less common beginning in the 1980s when empirical-analytical forest policy research began gaining ground. Since the present book is limited to the empirical-analytical approach, the reference made to normative forest policy program research should suffice.

The advancement of regional planning, which began in 1960, gave rise in forest policy studies to an intensive confrontation with forest land-use planning (Zundel 1968; Essmann 1980; Glück 1980; Niesslein 1981). Since targets play a central role in planning and planning research, forest land-use planning concentrates on this important element of programs. Scholarly publications formulate normative contributions to goals, as well as criticism, and are closely interconnected with forestry in practice. Regional planning studies in the forest sector cannot be differentiated to any great extent from

practical forest land-use planning. Corresponding to its practical orientation, scholarly research on these programs has been drastically reduced since the euphoria regarding regional planning subsided in 1985. However, this topic experienced a revival at the end of the 1990s through international forest policy. International programs and the integral instrument of 'national forest programs' have been dealing anew with the former issues concerning systematic forest policy (Glück et al. 1999). In this case, practical forest policy making is also the source of momentum, and forest policy studies are torn between making analyses and evaluative contributions.

Forest policy studies have occasionally integrated economic analyses of forest programs in their cases studies which focus on the entire political process from the perspective of specific objectives in the forest sector. For example, the examination of forest conservation policy in Austria (Krott 1990) or the forest reserve policy in Bavaria (Weber 1993) deal with issues concerning the development and effects of the respective programs. However, comprehensive findings on the formal and informal characteristics, or the power processes in forest sector program development, are not available. On account of a publication by Pleschberger (1981), "forestry ideology" was intensively discussed as an individual factor. However, empirical studies have not yet resulted from this scholarly controversy. Volz (1997) deals with the factor of legitimacy by illustrating the content and procedures in the political discussion of forest utilization concepts, while focussing on an informal strategy: The forest industry cannot expect a consensus of nature and environmental protection associations simply because it approaches their standpoints, since these associations have based their existence and credibility on the fact that they criticize the forest industry. A consensus would devoid the nature and environmental protection associations of their argumentative resources. On account of this political reasoning (and not only due to ecological considerations), these associations avoid the rapprochement of the forest industry by increasing their ecological standards so that the offers to compromise made by the forest industry are not entirely successful.

In contrast to the restraint evident in analytical forest policy research on the topic of programs, forest economics has always dealt comprehensively with the issues regarding goals and programs. Particularly closely related to forest policy are national economic concepts which analyze the efficiency and distribution of forest policy goals and instruments (Bergen 1993). Based on political-economic concepts, the scientific council of the German Federal Ministry of Nutrition, Agriculture and Forests presented an expertise in 1994 regarding general forest policy conditions and conceptual considerations on

forest policy. Even if such an expertise, as an aspect of political consulting, is not conceived solely as a scientific analysis, this still clearly illustrates the contrast between it and the present political program analysis, according to a current example. Political-economic program research is solely dedicated to the formal "rational" scope of the programs, whereas the informal power processes are ignored. The respective expert assessment would indicate that forestry has improved in keeping with the principles of economics, however it gives no evidence as to the acceptance or implementation of these demands in political practice. In this respect a political program analysis would not be in contradiction to the economic ideals. Instead, it would more comprehensively illustrate which of these interests are touched upon and how, as well as which political processes determine program development and implementation.

Finally, general policy research should also be mentioned (Windhoff-Heritier 1987; Ellefson 1992). The analysis of programs plays an important role in the research that has taken place in Germany over the past three decades, particularly in the field of environmental policy (Maynz 1983). Forest policy research has not taken up such issues in a comparatively systematical form.

English-language literature in Europe has recently dealt more intensively with the issue of programs under the aspect of 'national forest programs' (Glück et al. 1999; Gislerud & Neven 2001; Glück & Humphreys 2002; Tikkanen et al. 2002). The issue of how a forest program can be developed in the scope of a national planning process is the focus of research. Political resistance and supporting factors are elaborated on the basis of political science theory. New lines of conflict are indicated and strategies for solutions are developed. The orientation to a planning process dominates, and it is also deemed as such by the political players. This perspective is limited in comparison to the program policy concept, because a policy program comprises all the elements that can be assembled to constitute an entire program, which only serves as an analytical scientific category. A policy program also includes the legal basis and financial promotion criteria which are not dealt with in the process of the 'national forest program.' The national forest program is only one part of the programmatics which are setting the trend in the forest sector. The differences between a national forest program and the whole policy program of the forest sector would present an interesting topic of future research, in order to determine the degree to which the public national planning process has any effect on forest policy and forestry in practice.

CHAPTER 4

FOREST USERS: OWNERS, WORKERS & EMPLOYEES, AND THE GENERAL POPULATION

A forest policy that aims at effecting the regulation of forest utilization and protection, has to include those stakeholders directly involved with the forest. Forest users comprise greatly varying social groups from forest owners to those working in forestry and the general population. As a rule, each individual belongs to several groups of users. For example, a forest owner assumes the social role of owner, yet in many cases he is at the same time also a hunter, farmer, conservationist or hiker. In modern society, the division of a person's activities into different roles is taken for granted. Since each role involves different forest-related activities, policy making should begin with the various kinds of forest users.

Forest users, program goals and interests are closely interrelated (cf. Illustration 2). Forest users orient their interests, which include ecological, economic and social dimensions, towards the forest, and these are either supported or limited by program goals. In as far as their interests succeed, they are realized as forest benefits which often become the subject of conflict. Private and public forest owners largely agree with the program objective of timber production. They are neutral or negatively inclined to the objective of protection; and generally sceptical towards the objective of recreation. Conflicts arise especially when forest programs place economic limitations on forest owners. This is also the reason for the disapproval of nature protection programs which are against timber production or reject high-yielding foreign tree species, e.g. However in the ecological sector, there is largely agreement on environmentally compatible forestry management and forest protection concepts, especially regarding public forestland. The goals of hunting programs contrast with the interests of forest owners in many ways. Hunting is valued by many forest owners for both economic and social reasons. Yet they do not want to do without profitable timber production. Conflicts concerning damage caused by browsing wild game not only arise due to the disparities between forest and hunting programs, but also because of the owner's internal interests. The interests of forest sector employees do not basically differ from those of forest owners with regard to forest, nature protection and hunting programs,

since their focus is on financial proceeds. Differences arise concerning profit distribution and workload. This calls for programs pertaining to labor policy and social politics.

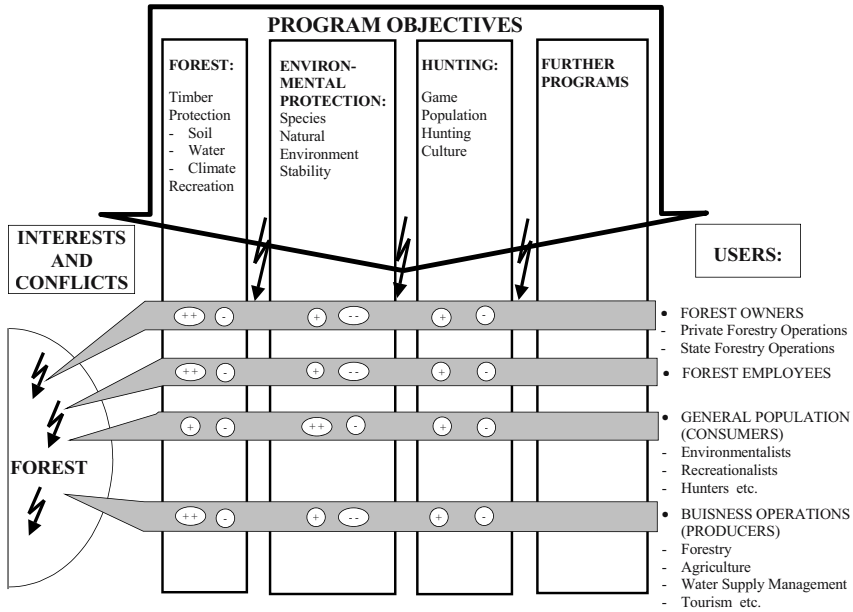


Illustration 2: Program Objectives, Interests and Those Benefiting from Forest Policy

The general population forms a large and varied group. They have in common that they benefit from the effects of the forest, whereby their consumption is partially regulated by markets and partially by means of other social or political control mechanisms. In this sense, most of the general population's nature protection interests are realized through nature protection programs, whereas the legal right of access to forests facilitates forest recreation. Public groups with hunting interests will find their major support in hunting policy programs. However environmentalists and hunting adversaries, which are also significant public groups, are opposed to hunting interests. The forest program objectives of protection and recreation mainly conform with the interests of the general population, whereas timber production awakens far less interest in the average person.

Another group of users constitutes the sectors of timber production, pulp & paper industry, agriculture, water provision and tourism, among others. These sectors give rise to special interests in forests, e.g. timber, forest meadows, water provision, protection for transportation routes, or landscape and recreational space. Forest programs provide positive incentives for these sectors by substantially promoting the use of forests for protective and recreational functions. As a rule, nature protection programs are opposed to economic exploitation interests.

Development and opportunities for regulating a specific forest conflict depend upon the stakeholders involved and the particular ways they want to use a forest. Neither forest owners nor members of the general population pursue solely economic or ecological interests. Each stakeholder has his own bundle of interests, the diversity of which results in conflicts as well as potential for compromises. Since the stakeholder or forest user defines and protects his self-interests, he is the key factor in forest policy. As forest users, all the diverse stakeholders have to be taken into consideration with each of their special interests and implementation tools. A preliminary overview is provided by the following elaboration of the three groups of forest users who are directly active in the forest: forest owners, forest workers or employees, and the general population.

4.1. Forest Owners

The phenomenon of property ownership has characterized the order of society and economy as a whole. In law it is given a place of priority and counts among the most important factors of forest economics. In Germany the law differentiates among the following forms of ownership: state forests, corporate forests and private forests. The purpose of these categories is to standardize the various rights and obligations of the respective forms of ownership (Klose, Orf 1998, p. 119). In Germany, as the following example shows, all three categories are well represented with a share of 33%, 20% and 47% each (cf. Example 2). The following example is distinguished by the historical peculiarities of forest ownership in Germany and does not reflect other European countries. It is, however, suitable for illustrating the universally valid theoretical idiosyncrasies of the owner.

Example 2: Forest Ownership in Germany 1997 (Source: Federal Ministry of Food, Agriculture and Forestry: Forst Holz 1997/1998, Bonn)

➤ *Type of ownerships*

	<i>Forest area in million hectares</i>
<i>State Forests</i>	3.6
<i>Corporate Forests</i>	2.1
<i>Private Forests</i>	5.0
<i>Total</i>	10.7

➤ *Enterprises According to the Size of Forest Area*

	<i>Number</i>	<i>Forest area in million hectares</i>
<i>Less than 1 hectares</i>	86,396	0.04
<i>1-50 ha</i>	350,898	1.85
<i>50-200 ha</i>	6,790	0.66
<i>200-1000 ha</i>	3,187	1.39
<i>Total</i>	1,526	5.55

Note: Including the smallest forest area under 0.5 hectares, which is not recorded in the statistics, the total number of the forest owners of less than 50 hectares is estimated about 1.2 million hectares.

➤ *Cooperatives*

<i>Number</i>	5,317
<i>Members</i>	435,593
<i>Forest area belonged to the enterprises</i>	3.14 million hectares

In Germany, state-owned forests have been organized into seventeen independent forest administration bodies, each answering to the respective public administration. The sixteen state forest administration bodies and the national forest administration are like large forestry enterprises in keeping with Central European standards. In Bavaria, e.g., they manage a forest area encompassing 730,000 hectares and in Lower Saxony 340,000 hectares (cf. Appendix 3: Forest Ownership Distribution in Selected Countries). Their shares in the corresponding forestland of each state, spanning from 13 to 40%, indicate a strong presence. Shares of state forest over 30% are high in comparison in Europe. The role of the state as a managing forest owner is closely connected to its role as public administrator of all the forestlands. Ownership gives the state additional opportunities to intervene by managing the utilization and protection of its own forests. Above and beyond its economic goals, the state-owned forest has an obligation towards the public functions of a forest, in particular those of recreation, nature conservation and protective cover.

Corporate forests are also publicly owned forests that are usually in the possession of municipalities. Their size ranges from a few hectares to several thousand. In total, the share of corporate forests is largest in the German states of Rhineland-Palatinate, Baden-Wuerttemberg and Hesse at 54%, 41% and 37%. The goals of the municipal owners are characterized by the public duties which differ significantly between cities and rural municipalities (Krott & Nilsson 1998). However the protective and recreational benefits of a forest are particularly important for the population of a municipality, but less so, the production goals (Lückge 1991; Henne 1992). In addition to the municipalities, other public corporate bodies have forests in their ownership. In particular, this includes "Realverbände", which are a legally protected form of community/joint ownership and amount to 10% of the forests in Lower Saxony.

Private forests constitute the largest group in Germany, with regard to their share of forests. They can be divided into private operations of greatly differing scales. Around 1200 forest owners have forestry enterprises of over 200 hectares; 350,000 forest owners have forestlands of between 1 and 200 hectares in size; and 850,000 owners have very small forests of less than 1 hectare (Niesslein 1985, p. 32; Volz & Bieling 1998). In addition to the economic and social position of their owners, the size of the forestry enterprise significantly determines the objects they set pertaining to their forests. The large-scale operations are mainly specialized in forestry production. The owners of medium-scale forests are traditionally engaged in

farming and manage their forests accordingly. The economic position of small forest owners is strengthened by forming cooperatives, of which 5300 share 30% of the forestlands. Over the past decades many small forest owners have lost their farming function and value their forests according to different standards in contrast to those who are involved in agricultural and forestry production.

In 1990 the new federal states in the East of Germany contributed around 3 million hectares of forestlands to the former territory of the Federal Republic of Germany. These forests, which were managed entirely by the state in the scope of the planned economy, and were expropriated from their owners before the end of WWII (8th May 1945) or after the founding of the German Democratic Republic (1949), are to be returned to the states, municipalities or private owners according to the Unification Treaty (Zundel & Schwartz 1996). The national forest that was expropriated in the scope of the land reforms between 1945 and 1949, and encompasses 672,000 hectares, will not be restituted, instead it will be privatized through sale. Restitution and privatization through sale are intended to create privately owned forests which are comparable to those in the old states of the Federal Republic of Germany.

The political role of the owner, who is at the center of focus in this discourse, superimposes the legal and economic diversity of forest ownership. In political terms, ownership is a form of domination (Burghardt 1980) which encompasses both the legal term of "title-holder," i.e. the holder of rights, as well as that of the "landlord" who has the power of control over his own lands.

The forest owner is the stakeholder who has the immediate power of control over a certain forest.

The power of control gives the owner the right to refute claims of others to his forest or their attempts to utilize it. By reserving the right of access to the owner, forest ownership very effectively regulates many conflicts of use. Without setting further goals, it provides a political guideline on how to proceed in the face of conflicts. One certain individual, namely the owner, decides upon the desired means of utilization. Without the social "institution" of property ownership, conflicts would constantly arise among those involved regarding who may determine the means of forest utilization.

The simplicity of this principle and its general applicability have made it a major institution in all societies with the concept of property ownership.

Freedom of choice is an aspect of ownership. The owner's principle freedom of decision does not depend upon his values or expertise. It is even possible that a specific forest owner has no objectives at all in mind for his forest. Freedom is a major component of ownership. The degree of freedom indicates whether the owner actually has attained the power of control over his forest, or whether he may only formally call himself owner, although he is obligated to follow stipulations, e.g. those made by the state. Privately owned forest property, which is fully managed according to state programs, does not involve the power of control and therefore does not comply with the above-defined quality of ownership. The handing over of decision-making power to private forest owners is a necessary political measure in the scope of privatizing communist planned economies (Krott, Marosi & Goyla 1996). The political system has to go through this process, if the forest sector is to be based on private property. Only if the owners have achieved this principle freedom, are policy making and the market economy called upon to set up a framework in which forest ownership can develop to usefully fulfill public objectives. According to the manner they function, economic and political control are targeted to freedom of choice in ownership.

The owner's authority over his own forest does not have to be asserted by him alone, instead it must be politically guaranteed. A central power, no matter how it be organized, supports the realization of owners' claims (Willgerodt 1980). Political guaranties provide an essential aid. However this safeguarding also requires the owner to take special measures. In practise, property claims require the owner to make a considerable effort which far surpasses maintaining the property delineation on site. The relatively large sizes of property and multiple points of contact with other users necessitate a great deal of engagement to secure property, and particular effort is required in highly frequented regions with settlements and individuals seeking recreation.

The freedom of decision in asserting one's rights against other claims determines how an owner manages his forest. The result depends upon the owner's interests as well as his instruments of power. Both areas can be more closely characterized for forest owners in Germany.

4.1.1. The Interests of Forest Owners

A forest owner's interests are geared towards maintaining his own authority as well as the various forms of utilization he expects from the forest.

- **Maintaining one's own authority**

Owners refute any attempt made by others to influence them. Like any other form of authority, forest ownership is constantly challenged by other stakeholders' claims. Certain social groups would like to use the forest for their own purposes, in particular, recreation. The state stipulates general objectives – environmental protection or proper forest management – which are standardized for forest owners as decision-making guidelines. The forest owner has to assert himself in the frame of his own forestry enterprise. Here it is the managing staff and the workers who hope to realize their self-interests in the forest. The diverse expectations made on any forest owner have twofold results.

On the one hand, there are various different property rights. The owner is forced by the state and the other stakeholders to share many areas of his decision-making power, or to make his decisions dependent on certain preconditions. These limitations have been standardized by law, and they result from the limits set by the information status and the physical presence of the owner. For instance, a small forest owner, whose formerly expropriated forest has been officially returned to him, is not able to take on his role as owner until he has been on site and seen his property, as well as having access to forestry expertise. With these preconditions, which can in practice only be fulfilled with great effort over the course of denationalization, the owner cannot take over the formal authority of his right of ownership, and he remains dependent on state advisory services in order to informally fulfill the role of the actual owner.

Secondly, the owner is forced to actively recognize the components of his property and to defend it against competing influences. The forest owner always aims to secure his power of decision, or to ensure that other stakeholders cannot secure any power of decision in unregulated areas. Simply protecting one's power of decision, or in other words, maintaining one's own authority, determines the majority of political conflicts regarding forests. Independent of any objective problems, whether they pertain to environmental protection of forests, access to forests for those seeking recreation, or ensuring of sustainability, the owners and their political representatives always attempt to maintain the largest possible freedom of

influence. This interest counts among the lasting and uniform objectives of forest owners and can also be presupposed for the future.

- **Sustained value**

In general, property has the potential of being maintained on a long term. This long-term orientation is particularly relevant for landed property or forest property. The land may be put to use, but the assets remains the owner's property. The assets of forest property are perceived by the owner in physical or economic terms. The natural asset of forest property may be precisely assessed nowadays in many aspects without great difficulty by using forest surveying and assessment techniques. The details and dynamics of stock, increment and state of soil are factors known to any interested forest owner today. However, new aspects may arise, the assets of which are usually unknown to forest owners. For instance, there are very few detailed surveys of the species of flora and fauna found in forests and their significance for biodiversity. Forest owners have the formal authority over an ecological asset of which only very few of them actually have any practical knowledge. Information on the economic assets of a forest is even more incomplete. The valuation of a forest is a considerable problem for experts, mainly in connection with its long-term production period (Bergen et al. 1998). The benchmark figures change so drastically in a century, especially the prices for the valuation of forest assets, that property assessment at any specific time always underlies a high degree of uncertainty. However, if the statement of profit and loss does not include assets, this means that the owner, whose forestry enterprise is characterized by high operating assets in comparison to yield, will not know the most important economic key factor. The interest in maintenance is thus more strongly geared towards natural assets, i.e. the maintenance of a forest with certain distinguishing traits. A wealthy stock of diverse species and structure, which can rejuvenate itself, is considered by owners to sustainably secure forest property, without consideration of its economic valuation (Brabänder 1995, p. 279).

The highly incomplete information that German owners have on their forest property assets does not mean these owners have a low estimation of their assets. In contrast, everything indicates that German forest owners are geared towards maintaining their forest property assets on a long term basis. Stocks increase in both state and privately owned forests in Germany, except in times of crisis. The assets of potential yields have the advantage for the individual owner that they are sustainable over many years and can be turned

into sales proceeds over a short term when needed. Forest assets do not attain a comparably high rate of interest, however they are estimated to be very secure according to past experience in Central Europe with the devaluation of currency as well as stocks and bonds. In keeping with the taxation laws in Germany, forest property assets are not directly taxed. This exemption from taxation is highly valued by forest owners (Bergen et al. p. 31). These economic advantages additionally promote the forest owners' strong interest in sustaining natural forest assets.

Sustained ownership of forest property can only be secured by means of inheritance. Inheriting property has become the most common way of obtaining forest assets. Despite its legal security, the course of inheritance always constitutes an unstable phase of property ownership. The authority of the new owner has to be asserted vis à vis other potentially interested parties and the state. Inheritance conflicts, the distribution of assets and the taxes levied by the state have an influence on forest property. The division of forests into many small plots has significantly affected their economic utilization in many regions.

- **Capitalized income value**

A forest provides its owner with various means of achieving financial proceeds. Even if the state taxes a portion of the proceeds, a key factor of property is that all proceeds from it belong to the owner. This rule is not at all taken for granted politically; instead it constitutes a significant broadening of the definition of ownership, which is decisive for its role in the market economy. The prospect of proceeds has a great influence on forest owners. In economic terms, they are able to increase their property assets by targeting the means of utilization that promises the highest profits. This is a given opportunity for forest owners. In Germany, however, owners only pursue this objective while simultaneously considering other important limiting factors (Brabänder 1995).

The official annual figures for forestry enterprises of more than 200 hectares mainly indicate positive net profits for private forests over the past decade, whereas state forests have a negative net income, as a rule (Deutscher Bundestag 1998, p. 59). The figures for forestry enterprises with forestlands totaling 5–200 hectares in Baden-Wuerttemberg from 1998-1997 indicate an annual net income which varies from positive to negative (Brandl et al. 1998). These business analyses and others suffer from methodological weaknesses, however their results still provide evidence that private forest owners make profits. The single year deficits were covered by the profits

made in other years of the same time period (Brabänder 1995). Profits are an important goal for owners of forests larger than 5 hectares in size. However their interest in maximizing profits is not as strongly developed. Forest assets, which reached a figure of 100-200 billion EURO (Köhler 1994) for the former West German states depending on the specific evaluation method, only achieve a negative net income. Limited to the figures for private forestry enterprises, assets can carefully be estimated at around 50 billion EURO with annual profits of 250 million EURO resulting in interest yields of around 0.5%. Despite the inaccuracy of these estimates, they give evidence that high profits cannot be targeted with forest assets, in contrast to other investments in assets. The inverse state of supply and demand in the conifer timber market also points towards profit making to cover costs without profit maximization. Growing timber prices are not being used to maximize profits; instead the timber supply is being throttled, since the targeted "reasonable" profits can already be achieved with a small volume of turnover (Bergen et al. 1988). Financing forestry enterprises with capital resources gives the owners the leeway to modestly choose their own goal of "reasonable profits" without being pressured by external financiers to maximize profits.

Owners of small forests under 5 hectares have opportunities for making financial profits which are much different from those with larger forestry enterprises. The deciding factor in their financial considerations is not the forest. Instead, their main financial engagement determines how they use their forests. Linking small, private forestry enterprises and farming led to the concept of "agroforestry" (Abetz 1955). The structural changes in agriculture have greatly reduced the number of farmers who own small forests over the past decades, and have resulted in a group of small forest owners without involvement in agricultural production. Today's small forest owners have varying interests in profits due to their greatly differing lifestyles and economic involvement. Financial profits from forests are only important for less than 50% of them according to a survey made in 1999 in Baden-Wuerttemberg (Judmann). For the majority of small private forest owners, forest assets no longer involve having a forestry enterprise geared towards profit making.

- **Sales value**

Owning forest property also includes the prospect of selling the forest and thus achieving an increase in assets. Growing real estate prices can result in large profits for property owners, especially if the property is rezoned from

cropland or forestland to building land for property development. Real estate speculation plays a very important role for property owners (Holzheu 1980). The property increases in value not only according to the market demand, but also in direct relation to the measures taken by the state. Land zoning and road access have a very strong effect on the prospects for property utilization and prices. Property rezoning can also result in devaluation of forestland, e.g. in the face of increased access for tourist recreation purposes. Little is known about the significance of the sales value on the forest owner's decisions. Surveys of small private forest owners have regularly indicated only a very low readiness to sell over the past decades. However, it is questionable to which degree the survey indicates refusal to sell even if there is a corresponding demand by buyers (Judmann 1977).

Above and beyond the sales value of forest property, it also has a general value based upon all the prospective methods of forest utilization. If new prospects arise for forest utilization, and there is an ensuing demand, the owner has the right to use them. Taking into consideration the long-term development of a forest and the diversity of its effects, the chances for new means of utilization are not slight at all. The demand for environmental protection or adventure sports has given rise to new uses of forests, however these are generally outside the jurisdiction of the property owner. Nevertheless, the forest owner may still hope that new demands will increase the value of his forest.

- **Sentimental Value**

The sentimental value represents an interest in forests which does not involve any economic exploitation (Burghardt 1980, p. 68). Yet the sentimental value can be transformed into potential sales value or earning power as a result of business activity. For as long as this is not the case, the sentimental value designates a separate interest which has great significance on the activities of forest owners.

In rural communities in Germany, owning forest property has a positive note of prestige. Historically, forest ownership was closely linked to the aristocracy, since other social circles were prohibited from purchasing forestland until the civil revolution. The forest thus bestows prestige upon its owner, which is still often associated with a feudal lifestyle, despite the present-day bourgeois social order. The interdependence of sentimental value on the values of the social environment is particularly clear regarding this aspect. The positive image of the forest owner is only very limited in the new federal states in the East of Germany where the enemy image of the big

landowner was upheld throughout the communist era. The connection of owning land with the tradition of hunting also contributes to the sentimental value for many owners (Schraml 1998). As a consequence of widespread economic exploitation, the owners also often aim at achieving short-term profits from hunting.

The sentimental value is increasing in significance due to the conversion of agricultural lands into small private forests. The highly estimated value of recreation in one's own forest superimposes the interest in financial profits from forest assets for a greatly increasing number of landowners (Judmann 1998). As such, forests are of great importance to their owners; however their financial resources accrue from activities other than forestry operations.

Traditionally, the goals of publicly owned forests do not only aim towards economic exploitation. They follow the foremost objective of "common welfare," as shown in Example 3: Objectives of State Forests. The safeguarding and improvement of the protective and recreational objectives of state forests are called for, even if this is not linked to a profit. The state, as owner, is obligated to realize objectives apart from economic exploitation. The great significance of these objectives for the general populace makes it clear that the aims of public or private owners, which are linked to the term of "sentimental value," do not have less political impact than earning power does.

Example 3: Objectives of State Forests (Source: Bavarian Forest Act 1982, Article 18)

State forests specifically serve the public welfare. Therefore they have to be managed in an exemplary manner. In particular, the responsible authorities are to maintain or establish environmentally compatible, healthy, potentially productive and stable forests. Furthermore, they have to:

- 1. safeguard and improve the protective and recreational functions of the forest, as well as considering the aspects of nature protection, landscape protection and water management, before taking any measures*
- 2. increase timber production, maintain the necessary stock required, utilize the resources according to economic principles, and*
- 3. protect the forest from damage.*

4.1.2 Objective Setting and the Political Tasks of Ownership

An overview of the varying factors of owners' interest in their forests shows that each type of ownership has a variety of objectives. All owners give priority to safeguarding their authority and maintaining of their forest assets, no matter whether they are private or state owners. The objective of making a profit does not dominate, although it is more strongly apparent in the case of private forests. Sentimental values are diverse, however state forests are always geared towards the public task of providing protective and recreational functions.

Setting objectives in the scope of this general state of interests constitutes a multi-faceted process for each owner. Each individual has such difficulty setting his objectives as an owner, that surveys repeatedly indicate a lack of formulated objectives. In cooperative forests, the setting of objectives needs to consider the interests of all those owners involved. A number of responsible persons, who represent the public interests, formulate the goals for public corporations or state administration bodies. Formal processes only result in a list of priorities for the administrative management up to a point. The lack of wide-scoped priorities set by the owner is often criticized in business administration concepts. Business administration gives the owners the chance to autonomously set their objectives, yet at the same time, it criticizes the lack of rational or meaningful goals that are listed according to priority and are free of contradictions. The owners' process of setting objectives only takes place rationally in part. This is valid both for individuals as well as public bodies in which internal conflicts hinder a uniform setting of objectives. The distinguishing feature of property ownership is the freedom of choice in setting one's own objectives, rather than the setting of clear objectives.

Policymakers link great political expectations to forest owners' freedom of decision, both for free enterprise as well as democracy. The market economy is based upon individual autonomous decisions made possible through decentralized ownership of business operations. Its mode of operation will be further elaborated later in the scope of economic instruments.

The major democratic task of private ownership constitutes the distribution of power. Property owners are a counterweight in the face of the central political power. Owners have their own resources for strengthening their independence and can thus participate democratically in political decision making. The tension between private owners and state politics is therefore a political expression of state regulation. At the same time, democracy calls

for a widespread distribution of property ownership. The more highly concentrated property is in the hands of a few individuals, the less they can contribute to a democratic equilibrium. As is the case in the whole of the German economy and society, forest ownership is far from being evenly distributed, since around 1% of the forestry enterprises manage 65% of the forests. The small forest owners, whose number in Germany can be estimated at around 1.2 million (Volz & Bieling 1998), thus have great significance on the democratic objectives of land management policy (Essmann & Niesslein 1996). The equal distribution of property, conducive to democracy, is mutually related to the dwindling concentration of business property in the economy. In Germany this process of concentration has not (yet) begun with forest owners. In contrast, the (re)privatization in the new federal states in the East of Germany has resulted in a great number of small forest owners whose economic problems still need to be solved. The political tasks of private owners are not the same as their economic tasks concerning forests.

4.1.3. The Realization of Owners' Interests

The realization of owners' interests is characterized by the strained relationship between individual freedom and involvement in society. On the one hand, the owner's freedom means that he has to realize his self-interests by himself. On the other hand, politics has created a framework which both supports and limits private ownership.

Within his own bounds, the owner's most important resource is the direct access to his own forest. This is especially evident concerning farmers with small private forests. The owner can go into his forest anytime and fell, plant or tend his own trees without having to ask anyone beforehand. The owner directly controls the activities in his own forest without needing to involve the state or any other stakeholders. Direct access to their own forests gives competent owners a very great margin of action for implementing their own objectives. Such owners are best informed about their own forests and their potential utilization. They take the initiative and directly manage the numerous forms of utilization in their own forests. The proceeds also go directly to the owners. In essence, forest property ownership functions without outside intervention. Political regulation, in contrast, only takes hold in a later phase. Policymakers first have to inform themselves about the business activities in order to implement their instruments. The great number of owners and the daily measures they take already imply that activities

concerning forests are mainly determined by the owners, whereas political regulation is only selective.

Precondition for active implementation is that the owner has a high degree of expertise, as well as the material resources to conduct the measures he takes in the forest. Large forest owners built up these resources as forestry enterprises which comprise organized special know-how, physical labor and material resources. From the owner's point of view, the business operation is an instrument for the direct realization of his interests in the forest.

In the scope of the market economy, owners of small forests, particularly those with less than half a hectare, have numerous disadvantages. Only with great effort can they come about sufficient expertise and material resources to manage their forests. As suppliers of small volumes of timber, they have difficulty finding buyers and obtain low prices. By merging their forests, the owners can improve their position. Private mergers of individual forestry enterprises are legally known as "forestry cooperatives," and public mergers as "forestry corporations." Forestry cooperatives and corporations may also establish greater organizations known as "forestry associations." These organizations are given preferential treatment in the form of advisory services and financial support from the state for the purpose of improving the structural weaknesses of small private forests (Niesslein 1985, p. 90). The owners welcome the expertise and material resources resulting from the merger, while at the same time, the merger means that they partially renounce their freedom of action concerning their own forest (Dürstein 1996). Each owner has to come to an agreement about his decisions with the other owners and can only take action through the business management. Since the business manager usually has a great influence over the numerous individual owners (Neumann 1984), the individual owner's freedom of decision is additionally restricted. The generally limited willingness of small forest owners to enter into business cooperatives reflects their experience that even this loose form of merger visibly restricts their freedom as property owners. A merger improves the group's success in asserting itself at the price of reducing the individual member's influence.

On a social level, property ownership is highly protected by law (cf. Example 4).

Example 4: Property Rights in the Basic Law Code of Germany (Article 14)

- 1) *Property rights and the law of succession are guaranteed. Object and limitations are regulated by the law.*
- 2) *Ownership obligates the owner. The use of his property should also serve towards public welfare.*
- 3) *Expropriation is only permitted if it serves towards public welfare. It may only take place according to a law which regulates the type and extent of compensation. Compensation is to be determined by justly weighing the interests of public welfare and those involved. In the case of a dispute regarding the extent of compensation, it may be contended in public court.*

By guaranteeing property ownership as a "basic right," the basic law code makes a value-judgement in favor of ownership (Niesslein 1980; p. 76). The forest owner is granted the right to refuse all other claims. The legislator assumes that the utilization of forest property will simultaneously serve towards public welfare. The model forest owner realizes private interests in utilizing his forest and at the same time manages it so that the public services from protection to recreation are provided, in as far as necessary. This means that forest property can only be limited in terms of its property lines, rather than by means of public demands, such as those made by the people, special administrators or political players. Moreover, the laws are not free to limit forest ownership, instead they are bound by the nature of the basic guarantee of property ownership. The abolition of forest ownership, even in a limited scope such as urban recreation areas or avalanche protection forests, would not be upheld by law either.

Since laws alone determine the limits of forest ownership, politics can define forest ownership by further developing those laws. Based upon the various political objectives and powers, the special obligation of forest ownership towards public welfare is standardized accordingly. Public welfare can also call for expropriation in special cases. Then the owner is always entitled to compensation.

This approach to the legal protection of property leads in practice to three main problems, which are the subject of legislation, law enforcement and jurisdiction: 1) definition of ownership; 2) compensation for restrictions; and 3) limitations for expropriation and compensation.

- 1) Forest ownership is defined according to numerous legal norms, including the Federal Forest Act, in particular. Among others are the duty to maintain the forest and properly manage it, the afforestation limitations, the special regulations for protective and recreational forests, and the general right of access for the purpose of recreation. Politics limit the owner's freedom in the interest of public welfare, without abolishing ownership as such.
- 2) The owner has to accept the limitations to a certain degree in the sense of "social obligations," without expecting compensation. In return for accepting these reasonable burdens, however, he may expect voluntary "compensation payments" from the state as a reimbursement for special use of individual forests. In connection with compensation payments, the state can restrict forest ownership more than it otherwise could, without going as far as property expropriation (Wagner 1994). This is related to interventions which partially or completely prohibit a formerly permitted utilization of forest property, or which result in a significant reduction of value. The limits are drawn for each individual case with respect to further legal considerations which cannot be covered by a general stipulation (Klose & Orf, p. 158). Those legal forest regulations surpassing social obligations generally apply to the area of compensatory stipulations. The laws stipulate various fees to be paid in the case of failed conversion, maintenance costs for failed re-afforestation; or subsidies if forestland is declared to be a protective or recreational forest.
- 3) If the limitations are extensive, this will result in expropriation obligating the state to compensate the owner. Expropriation is an official act which takes away a certain piece of property from its owner. It always requires a specific legal basis. A value guarantee takes the place of a stock or inventory guarantee in the course of legal expropriation. For the purpose of legal certainty, the corresponding compensation is not determined according to a general norm, instead the individual forms of reimbursement are stipulated by law.

In addition to the law, the acceptance of the general population influences property ownership in society. The high esteem held by private property owners in Germany results in a high legitimization of private forest property. Despite this, the concept of forest ownership suffers under the illusion of wealth in comparison to ownership of other assets (Burghardt 1980, p. 74).

The good visibility of large pieces of forestland, belonging entirely to one private individual, potentially gives the impression of being socially inappropriate. The larger the size of private forest property, the greater the problem of public acceptance in comparison with other types of assets. In contrast, ownership of small private forests awakens far more trust in the population (Lenz 1983, p. 84). The small forest owned by a farmer benefits from the traditionally great popularity that farmers enjoy. In comparison, the large private forest owner tries to avoid the public spotlight. He integrates his image into that of the entire sector of private forest owners, which comprises 95% small forest owners. In addition, all forest owners point out their contribution to the maintenance of the forest, a natural element for which the general population has the highest sympathy. Public services, such as that of securing free enterprise and democracy, are also used as arguments to increase the acceptance of private forest ownership.

4.2. Forest Workers and Employees

In addition to the owners, forest workers and employees are a central factor in managing forest utilization, since their work enables forestry production. In contrast to the owners, they do not have autonomous access to the forest.

Forest workers and employees are those who utilize the forest on the basis of a working relationship and thus participate in forestry production.

A working relationship is based upon a private contract between worker or employee and employer. The contract stipulates the working conditions and the payment and thereby justifies working for someone else in a dependent relationship with the employer. Civil servants also have such a dependent working relationship, although in public service they have somewhat different rights and duties.

The number of jobs in the German forest sector comprised around 13,000 civil servants and employees, as well as 40,000 workers in the year 1995. Since 1970, the number of workers decreased by 50%, whereas the number of employees decreased by about 5%. The reduction of employees mainly took place in private and corporate forestry enterprises, whereas state forestry enterprises have only begun to follow the trend lately. Despite this

considerable reduction, the employees and workers are, in addition to the forest itself, the greatest economic production factor, as shown by their share of the operating costs in terms of wages, salaries and social costs, which is around 70% in state forests and 43% in private forests. From the employee's perspective, these are naturally not costs, rather the share in production from which they benefit.

The employees' or worker's interests are in competition with those of the owner. In a specific business situation, the development of interests depends on the general needs of the employees. Employees' or workers' needs may be defined in three groups which are hierarchically related to each other (Alderfer, as cited by Schwarzer 1996, p. 169).

- 1) Job and income security are existential needs. Prevention of job loss has a high priority with employees and workers. However, this cannot be guaranteed by private business operations. A lack of profitability in timber production over the past decades has led to a continuous reduction of forestry jobs, and this has now reached the administrative level, including that of state forestry enterprises. Although forestry is neither able to contribute strongly nor dependably to securing human existence, no matter which policy it follows, the quality of existing jobs is on the increase. Both job security and income have improved lately. Conflicts with the owners regarding income distribution are resolved according to whichever party is able to best assert its interests.
- 2) Interpersonal needs are only developed after existential ones have been secured. These have to do with good cooperation among colleagues and their superiors, and workers or employees repeatedly emphasize how important this is. In this area there are no conflicts regarding task distribution, since good cooperation burdens neither the administration nor the owner and is actually considered to promote productivity according to the concepts of cooperative leadership. Although the concept of cooperative leadership prevails in forestry today, its implementation is lacking in administrative practise (Teutenberg-Raupach 1995). This is also a result of the general conditions in public enterprises, which are based upon the traditional administrative principle of hierarchical leadership.
- 3) On another scope, the need develops for growth and self-fulfillment. Self-management of tasks, self-realization on the job, as well as promotion, are at the focus of attention. These needs become evident

on a subsidiary level, once the needs on the other levels have already been fulfilled. The forest sector encompasses a wealth of outstanding personalities, all of whom were once in interdependent working relationships, although they conducted their forestry work like entrepreneurs. Sooner or later conflicts with the owners regarding business management thus arise, whereby there has been considerable freedom giving rise to the development of leading officials which have characterized the image of the successful "forester."

In promoting their interests, workers and employees rely upon two potential forces. First of all, they alone control their own working force, including their special expertise. The refusal of the collective working force can force production to halt.

Long beforehand the working force and applied know-how will noticeably decrease, and this already threatens to weaken any business operation and adversely affects the owner's interests. However, the refusal to work reaches a limit wherever the employees need the resources from their production for their own survival, if they cannot produce them without the owner's cooperation. These basic power potentials oppose each other in working conflicts, even though they have always been settled mildly in Germany, in particular. Another of the employees' power potentials constitutes the material and procedural rights which are granted to them by the state.

Working relationships are regulated by employment of these instruments of power, resulting in the regulation of conflicts of interest in three processes (Fürstenberg 1985):

- 1) In the case of the model contract, both sides conclude a working contract which regulates working conditions and payment. They are each supported by their own unions, which also conclude general tariff agreements on a higher level. On an internal level, employees and employer face each other like business partners. On a higher level, negotiations among tariff partners take on a strongly political character, and power strategies are more clearly noticeable.
- 2) The cooperative model standardizes procedures in each business so that workers or employees and employer can deal with the problems of a working relationship cooperatively. Through these procedures, employers grant employees the right of information, the right of

hearing and the right of consultation or codetermination to a precisely defined degree. Concerning economic issues, the employer always has the upper hand with the full power of decision making, as well as regarding personnel issues and specific working conditions. However, he does relay information about these issues to his employees. Codetermination mainly takes place concerning the issues of job security and health protection. Works councils are important for ensuring effective procedures. Works councils have not generally been set up in private forestry enterprises, also due to the low number of employees, however they have achieved great significance in public forest administration bodies.

- 3) According to the regulatory model, the state standardizes important aspects of the working relationship. Labor law, including the employee protection law, the dismissals protection law or the maternity protection law, provides a regulatory framework which can be implemented by means of sanctions (German Labor Law 1998).

In the scope of formal proceedings, employees and employers settle their conflicts of interests supported by informal strategies. Generally, the following factors informally repress the worker's or employees' interests: I) domination of property by owners; II) small scale of business operations; III) marginal involvement of workers and employees in the trade union; and IV) strong position in the job market (Trinczek 1995). These predominant factors in private forestry enterprises lead to the postulation that workers and employees have an informally weaker position, although empirical surveys confirming this are not available. In as far as this is the case, either an uncooperative leadership style will be formed in the name of the entrepreneur's freedom, or a patriarchal leadership style, if the family management concept prevails in the business operation. In contrast, a strong works council ensures pragmatic power-related codetermination in public forest administration bodies, where the staff representatives ascertain how much can be achieved and go about implementing it.

Concerning employee or worker codetermination in particular and labor policy in general, there are no special surveys available for the forest sector. Forestry ergonomics and management, which scholarly dwell on the factor of labor, both exclude political issues. The almost complete negligence of such issues by forest policy studies is further indication of the weak position of workers and employees, also regarding forest research policy in Germany.

4.3. The General Population

In addition to forest owners and their workers or employees, who have direct input in managing forestry production, the members of general population are the third important forest users, since they have direct access to forests, as well as managing their own significant business and political activities.

The general population is constituted by the citizens of a political community

Forest owners and their workers or employees also belong to the general population and, at the same time, they participate as such in their various roles in forestry production.

The interests of the general population in the forest are formed by everyday activities which are, in turn, determined by their work and leisure time. In the industrialized society in Germany, e.g., most people's work has nothing to do with forests. In contrast with agrarian societies, the problems related to forestry production are considered far-removed by the members of the general population. Only in during leisure time, which is gaining significance throughout the working world (Opaschowski 1995), does the forest arouse their interest as a part of nature. Both the lacking connection to timber production and equating of forests with nature result in a yawning gap between the average citizen's perspective and the concept of multifunctional forestry, which is the forester's idea of a citizen's interest in "protective and recreational benefits." The world, as experienced by the general population, determines how personal interests are formed, rather than the concepts of forestry.

The distinguishing factors of the general population's interest in forests is the great diversity and internal tendency towards conflict. The great sympathy, which over 90% of the German population has for forests and wood as a part of nature (Institut für Demoskopie, Allensbach 1999), does not automatically result in a marked or uniform interest in forests used for timber production. The general population is little affected by "forestry" factors; its focus is on benefiting from the forest and nature during leisure time. These two aspects are very differently assessed by individual citizens. The milieu a person belongs to has an influence on his (or her) interests in using the forest (Braun

1999). The social circles can be characterized as different milieus according to existential outlook, education and age (Schulze 1996). At present, the "world of self-fulfillment" of those under 50 in an academic milieu contrasts with the "world of entertainment" of the workmen and blue-collar employees. In the age group over 50 years old, those who are highly educated and hold top-level positions in a "sophisticated milieu" contrast with the so-called "integrated milieu" of middle-class employees and craftsmen, and those who lead a "simple life," including workmen and pensioners. Although such a rough classification of the population greatly simplifies the actual diversity of society, it serves to provide a valuable indication of people's varying interests in utilizing forests. As a natural contrast to the everyday working world, as well as a place for recreational activity, particularly the more highly educated individuals like to make use of forests. However many other leisure-time interests prevent those belonging to the world of self-fulfillment from doing so, whereas a work-related lack of time increasingly prevents those who hold high positions in the so-called "sophisticated milieu." In the "integrated milieu," the forest serves primarily as a place for walking the dog or going for a weekend trip. Those who belong to the entertainment milieu" prefer passive, leisure-time entertainment and are too inactive to spend time in a forest, unless they do so with their family and children. According to the respective milieu, childhood experiences in forests, such as gathering mushrooms, watching forest animals, hunting and logging are differently assessed. The significance of forests for society, in terms of oxygen generation and maintenance of clean air, is recognized by most people. However only those in higher positions particularly emphasize the emotional importance of the forest. The phenomenon of forest die-back has primarily disturbed younger people, whereas members of the "sophisticated" or "integrated milieu" may consider the warnings about this danger to be exaggerated.

As confirmed by the insight into the various milieus and by the numerous surveys conducted over the past decades, the average citizen's interests are focussed on conserving nature in forests and on using them as places of recreation. In addition, the forest's contribution towards protecting mankind's living space is valued. Not least of all, forests are considered a valuable cultural good practically attaining the mythical status of a pristine and intact world (Krott 1987).

To realize their interests, people only partially require physical access to forests. The myth and the environmental impact of the forests in preventing looming threats can be secured without a person ever having to set foot in a forest. However the public needs the support of (forest) policy to realize its

very strong interests in forest protection (Pauli 1999). Although politicians always profess to stand up for forest protection in public, the actual protection provided is far less than that expected by the public, e.g. against pollution or conversion. The interests of those seeking recreation can be satisfied through their direct access. In Germany, the forests can be accessed without great obstacle and used for various leisure activities. Correspondingly, walking, hiking, mountain biking, horseback riding and other sports count among the widespread activities that take place in nature, including the forest. These recreational uses lead to diverse conflicts, both amongst themselves, as well as with others who use forests or promote nature protection (Ammer & Pröbstl 1991). Economic burdens on forestry enterprises arising from nature protection and recreational functions of forests are a benchmark of the conflicts with forestry. The additional expenditures for recreational installations, maintenance or surveillance, waste disposal, regulatory measures, etc., and the reduced proceeds caused by damage to stock, prolongation of rotation period, and reduction of hunting, among others, sum up to around 25 EUROS per hectare of forest annually in Germany over the past decade (Dahm et al. 1999). The costs amount to around three times as much in state forests than in private forests. These figures indicate considerable lobbying from those seeking recreation, which public forests also have to accept for informal reasons, even if they do not receive any financial compensation in return.

In Germany, a person can refer to the Federal Forest Act which permits access to forests for recreational purposes, including cycling and horseback riding on paths. This stipulation in the Federal Forest Act, including further regulations in the forest laws of the individual states, legalizes the long established right of access to the open countryside. Although these regulations provide means of limitation and control, they grant the general population the highly significant basic right to forest recreation, which forest owners even have to permit against their will as one of their social obligations.

4.4. Further Forest Policy Research

Ownership is one of the most effective policy control mechanisms in the forest sector, and forest owners thus play a central role in forest policy. This has a dual impact on research. On the one hand, almost all forest sector research touches upon forest ownership, especially in the fields of forest economics and forest law. On the other hand, the analyses, which directly

and critically refer to forest ownership, deal with basic values that are backed up by powerful lobby groups. The elaboration of limits and alternatives regarding public or private ownership is among the research topics which lead quickly to conflicts with forestry in practice.

The significance of forest ownership for society and business is examined in the study of economics more closely in the field of "*Ordnungspolitik*" (i.e. an economy's institutional and regulatory framework). The forms of ownership count among the constitutive elements of the economic system or regime (Thieme 1995). This regime views political economics as a framework which is established outside the field of "policy making." The analyses formulate the regulatory standards and compare them with the state of development in the forest sector. Using this approach, Borchers (1996) examines the state forest operations in detail, with the result that both the interconnection of the tasks of sovereignty and management, as well as state forest management as such, do not fulfill the regulatory ideals. These would be better fulfilled by means of a comprehensive transition into private ownership rights. Full public forest ownership would only be legitimate in regulatory terms in the case of forestlands with public priorities. As a consequence of the large percentage of state forests, the optimum economic efficiency cannot be achieved in forestry, so that the privatization of large parts of the state forests would be called for economically. However, Borchers's analysis is not based on an empirical comparison of private and state forestry enterprises, rather on model assumptions of the behavior of private and state forest owners.

Forest business administration undertakes a detailed examination of the processes in state and private forest operations. It analyzes the economically rational action taken by the business operations, and thus indicates the potential scope of action for the owner of larger forestry enterprises, in cooperatives, as well as small privately owned forests. The main issue deals with the economic optimization of decisions regarding utilization (Möhring 1994). This makes it possible to gather essential information regarding the forest owner as a political player. However the equally important policy-related issues regarding the degree to which the owners want to adhere to economic goals, or the degree to which they can assert their interests within the forestry enterprise or outside it, cannot be resolved by economic studies alone.

This is where forest policy analysis comes into play with studies concerning the human nature. These studies preferably deal with small private forest owners, and the numerous empirical surveys which give information on their

forest utilization goals in both the new and the old states of Germany (incl. Lammel & Plochmann 1977; Steinkamp 1983; Köpf et al. 1995; Volz & Bieling 1998; Judmann 1998; Beck & Spiegelhoff 1999). The studies describe the current goals of forest owners and thus provide basic information for the development of forest policy tools, such as the improvement of alliances. However, the scholarly explanation for the attitude and the actions taken by the forest owners only has a modest rate of success, because it requires psychological theories which naturally have little power of explanation or prognostic capability in terms of the actions taken by a single individual. Psychological findings are helpful in policy analysis, yet they do not constitute the central research topic, since the role of the private forest owner is more politically significant than the psychology of individual persons. This role is characterized by the interests and power resources which determine the political action taken. The restitution of forests to their owners in the new states in the East of Germany illustrates the difference between the owners' psychological state of mind and their political role. Many small forest owners hardly knew what to do with their restituted forests at first, because they were not acquainted with the many possible forms of utilization, nor did they know about their responsibilities in this connection. Only in the course of time are they discovering the possibilities, and their interest-motivated courses of action are becoming characteristic for the role of small forest owners. The psychological capability of these persons influences how fast they become acquainted with the diverse facets of forest ownership.

The numerous legal studies, which examine forest ownership, take an entirely different approach. They are based on normative programs from which they derive the legal leeway and the social responsibilities of the forest owner. Niesslein (1980) developed a catalogue defining the limits between societal restrictions on individual property rights and expropriation. The special feature of this study is the legal assessment of detailed forestry utilization and problematic forest issues. Wagner (1996) elaborates the position of ownership, according to the new legal legislation, with special reference to nature and environmental protection. Wagner has developed a four-stage model regarding legally regulated financial compensation for limits imposed on ownership rights, from the calculation of the area to be compensated to voluntary compensation payments and support in the interest of the public. In keeping with the legal studies, these analyses are considered "legal and/or forest policy commentaries," which also provide information on desired future developments in legislation and jurisdiction (Klose & Orf

1998: p. 158). The real issue in (forest) policy studies deals with the significance allotted to the political process by its inherent legal standards.

There are currently no studies available which focus on the political dimension of forest ownership. Not even the process of privatization in the new states of Germany has yet been analyzed in scholarly terms, although a decisive political process with regard to the former owners and the duties of the state is taking place in forest ownership. However the small amount of research on ownership policy does not indicate a lack of significance of forest ownership. In contrast, it is one of the characteristics of highly influential political factors that they evade criticism, whether it be political or otherwise.

In Europe, studies on private forest owners are primarily to be found in the English-language literature published in Scandinavia. The values and behavioral patterns of non-industrial private forest owners are at the focus of interest (Kuuluvainen et al. 1996; Lönnstedt 1997; Törnqvist 1997; Karppinen 1998; Pykäläinen 2000; Hämäläinen et al. 2001; and Uliczka 2003). This group of forest owners does not conform well with the economic model of the forest enterprise and has therefore caught the attention of researchers interested in sociological and political approaches. The values and behavioral patterns of these owners have been recorded on an empirical basis, however their power of assertion has not become the subject of research. The application of property rights theory to forestry also indicates a close relationship to political science issues (Bisang & Kissling-Näf 2001).

In contrast, the individual person is a highly preferred subject of research in forest policy studies. A great number of surveys has attempted to record the opinions of individuals on forestry, as well as the forest. Schmithüsen (1997) and Pauli (1999) provide an overview of surveys of the general population related to forests since 1960. The results confirm the manifold expectation of the general population regarding the forest, as already discussed in connection with values. With an improved theoretical basis, such as that already cited in Braun's milieu concept (1999), new qualitative insights have been elaborated regarding the relationship of the individual person to the forest, and these can be supplemented by quantitative analyses in the future.

In comparison to the theoretical recordability and explicability of the general population's expectations and interests in the forest, however, it must be cautioned that the course of action of line of thought of any individual

person presents difficult problems in theoretical studies. The difficulties in the theoretical study of individual persons are repeatedly confirmed by election surveys, when the prognoses are proven wrong on election day despite extensive theoretical and empirical work. It is much more promising to postulate theories on the course of action taken by institutions, as well as the options which they give the individual to assert his or her interests. The courses of action taken by business enterprises, associations, political parties and administrative bodies can be more easily recorded, explained and predicted by political science. Forest policy studies should therefore not expect the behaviour of each individual to be explained to formulate an explanation of political interplay. In contrast, the institutions can already directly serve as the subjects of research, in addition to the general population and the forest owners, as elaborated in the following chapters.

Opinion polls of the general population are also a preferred method of research in European forest research, however only few results are available in English (Kangas & Niemeläinen 1996; Jensen 1993; Rametsteiner 1999). One of the focal points in Scandinavia is research on the expectations of the general population regarding the performance of the forest as a place of recreation (Pouta et al. 2000; Sievänen 1995; Sievänen 2000).

CHAPTER 5

ASSOCIATIONS AND POLITICAL PARTIES

The interests in protecting and utilizing forests are, on the one hand, the subject of political regulation, and on the other hand they also play an active role in politics. Through the associations and parties, forest users help to establish forest policy. In keeping with the diversity of interests, an endless number of associations will form in a pluralistic democracy, such as Germany. Of the approximately 4000 associations, 1700 are registered in the lobby lists of the President of the German Federal Parliament (Rudzio 1996, p. 67; Sebaldt 1997, p. 76). Ollmann (1988) estimates there to be around 150 regional and federal associations in the forestry and wood processing sector. In addition, the associations for nature and environmental protection, as well as the hunting associations, also represent direct interests in the forest. People with mutual interests form associations to lobby their interests in politics:

Associations are organizations, which articulate the interests of the groups they represent, and attempt to implement them by lobbying politicians.

The main distinguishing factor of any association with significance on forest policy is the special interest which it represents in the forest. This covers anything from management of forests by private owners, to the interests of loggers, to the continued protection of nature in forests. Associations actively form around certain interests. An organizational capacity is thus a precondition for the development of associations. The opportunity to do so depends on their potential power. Associations attempt to lobby their interests with professional means. This lobbying serves to alter the state's room for maneuver in forest policy. There are various concepts for interaction between the state and the associations, which characterize the overall image of forest policy.

5.1. Forestry Associations

5.1.1. The Interests of Forestry Associations

Forestry associations, like trade associations, are generally geared towards three major tasks: representing the interests of the forest sector, the employer's interests and the employees' interests (Nembach 1993) (cf. Table 1).

Table 1: Selected Forestry Associations in Germany

Association	Mandate	Organization and Members 1994
German Forestry Council founded 1919/1950	Promotion of forestry and conservation of German forests	National Federation, 65 Representatives from state, corporate, private, scientific and forestry associations
German Forestry Association founded 1899/1952	Maintenance of domestic forests and promotion of forestry; training of members	Federal Association of 11 state forestry associations with 7000 individual members, mainly forest workers & employees and forest owners
German Forest Owners' Association founded 1919/1948	Maintenance and promotion of forest ownership; represents privately owned forests	Federal Association of 14 forest owner associations with around 200,000 individual members
Union of German Foresters founded 1949	Represents the Interests of Forest Workers and Employees	Federal Association of 13 state associations with around 10,000 members: civil servants and employees in the forest sector; membership rate 55%
Labor Union Bauen-Agrar-Umwelt (IG-BAU) founded 1949	Represents the interests of forest workers	Federal Association of 12 state associations with around 30,000 members: civil servants in forestry, workers and members in training membership rate: 35 %
Association for the Protection of German Forests founded 1947	Protection and promotion of healthy and productive forests	Federal Association of State associations: with around 26,000 individual members (persons interested in forest protection)

The **German Forestry Council** represents the interests of the entire forest sector. It defines the objectives of the forest sector as the maintenance of the forest and its economic utilization, as well as its ecological contributions to mankind's habitat. Setting objectives in forestry is not exclusively based upon business interests, but also integrates ecological interests. In the scope of business, the call is made for freedom to put the forest to economic use. Ecologically, the German Forestry Council promotes the protection of the forest against damage by third parties. It thus fights against pollution through emissions and for the conservation of forests in areas of industrial concentration. The ecological goals are also valid regarding timber production. The association calls for production to be limited in the sense of sustainable utilization. On the whole, the German Forestry Council always pursues the goal of integrating economic and ecological interests. The Council is able to well formulate its position, in as far as economic and ecological interests in forests may be interlinked. However, in as far as partial objectives become problematic, the Council is confronted with the difficult process of internally weighing its interests, which often only results in general formulations as a way out. The German Forestry Council reflects the integrated objectives of the forest sector, as they have been standardized by the Federal Forest Act. In addition to purely economic objectives, the goal of protecting the forest is represented in terms of sustainable production. However, in the face of conflict, forest sector objectives remain vague.

The **German Forestry Association** serves towards the "maintenance of domestic forests" and "promotion of forestry." Its goals entirely correspond with those of the integrated sectoral objectives of the German Forestry Council, whereby the focus of the German Forestry Association is traditionally placed on further training and education of members. On the one hand, the common goals of the two organizations open up the chance for mutual support, as long as these organizations take on different tasks in the forest sector. On the other hand, they also have the option of opposing each other which results in conflicts, particularly concerning the unclear weighting of ecological and economic objectives in the sector.

The **Association for the Protection of German Forests** and the **Working Group for Natural Silviculture** also promote the interests of the forest sector. The Association for the Protection of German Forests focuses on ecological objectives from its perspective in the forest sector. It acts as a recognized association for nature protection and promotes healthy and productive forests. However it does not want to neglect sustainable forestry production, alongside safeguarding the protective and recreational functions

of the forest. The Working Group for Natural Silviculture promotes similar objectives in the sector, although it does not present any particular solutions. It has created a program for the purpose of closely interconnecting the economic and ecological goals by means of a special method of silviculture. Forestry should thereby become a model sector of sustainable management by establishing a balance between ecological interests and business interests.

The **German Forest Owners Association** represents the interests of "non-state-owned" forests on a federal level. It supports the interests of private and communal forest owners or employers (German Forest Owners Association 1993). It strives to secure business opportunities for private forest owners. The German Forest Owners Association also promotes the sectoral goals of forestry, however it emphasizes the economic issues.

Public chambers of commerce are only significant for forestry in a few German states. Forestry has been assigned a separate department in the **Chambers of Agriculture** in Lower Saxony and North Rhine-Westphalia (Chamber of Agriculture, Hannover 1996). The Chambers primarily promote the interests of forest owners, whereas advisory services for the purpose of self-help focus on small private forest owners.

The largest association representing forest workers and employees is the **Trade Union "Bauen-Agrar-Umwelt"** (lit. transl : Construction-Agriculture-Environment). It has a separate department for forestry issues. Its main tasks include promoting the economic, vocational, social and intellectual interests of those who work in forestry. Tariff politics play a very important role here. The union also takes up a position on issues in the forest sector.

In addition to the trade union, the **Union of German Foresters** (1988) also represents the interests of employees. It is a section of the German Federation of Civil Servants which has avoided being united with the trade union until present. The Union of German Foresters is represented in the tariff union of the German Federation of Civil Servants. It has a special focus on the interests of civil servants in forestry, however it also takes up a position on issues in the forest sector.

The competencies of the **forestry** associations correspond with the various branches of the forest sector, whereby the division according to craftsmen, trade and industry is of traditional significance. In addition to the organizations with an economic interest in these branches, associations of

employers and unions have become organized. An umbrella institution is the German Forestry Council.

The above-mentioned associations are only some of those which are significant in the forest sector. In general, the interests of the forestry associations are not limited to economic utilization, instead they also include objectives concerning forest conservation and the services provided for mankind and his habitat, albeit to a greatly varying degree. Over the course of their development, associations usually broaden the list of their objectives and add new goals to their basic aims. Yet in the forest sector, broadening existing interests is not a common occurrence. The reasons for the continuity of existing tasks are found in the long-established and very wide-scoped list of forestry objectives which goes beyond the key area of business interests. In addition, environmental protection and hunting associations have successfully organized their own groups to represent their interests in forest utilization, and thus afford considerable resistance against broadening forestry objectives to include nature protection and hunting interests. However the lessening interests of small forest owners in agricultural issues presents a great challenge to forestry associations, in terms of following the changes of the times and providing competent political representation for the owners' new interests. Forest interests are politically decisive forces which give rise to the associations' tasks and their existential legitimacy. The future of the associations depends on their ability to grow along with the changing forest interests.

5.1.2. Organization of Interests

The organization of interests is based on the simple principle which holds that several forest users forming a group can more strongly represent their interests in the political process than any single one of them alone. If numerous forest users have similar interests, their alliance can form a strong group with a large membership. The group would be able to realize political improvements which could benefit all members. Paradoxically, this service gives rise to problems in creating associations, which can be clearly illustrated in the case of a silvicultural association. If the silvicultural association successfully promotes forestry and, for instance, achieves a raise in subsidies for afforestation, this would result in a public guideline for subsidies which serves the interests of forest owners. The improved conditions for subsidies can benefit any forest owner, no matter whether he is a member of the silvicultural association, or not. Some of the owners will welcome the services of the association. However, because they benefit in

any case, they will not all participate in the association which always involves monetary contributions, among others. Since the most important services provided by associations are always political or public improvements from which no one can be exempted, there is often such a great temptation for "free-riders," that an association cannot be formed despite considerable common interests.

A scholar, by the name of Olson (1992), first pointed out the basic dilemma of forming associations in 1965 in a paper that was to become famous. The primary problem has to do with the common goods which associations attain through their political work. Since the advantages can benefit all those involved, the collective good is not sufficiently attractive to secure enough members for an association. The second problem has to do with the size of a group. The larger the number of those who are positively affected, the less easily the individual will recognize the importance of joining the association. He will consider his own contribution to be so negligible in terms of the entire group's main goal, that his costs for participation will seem relatively high, and he will decide not to become a member. Only in a small group will a member so clearly recognize the impact of his own contribution towards the group's success, that he is encouraged to participate.

The logic of combining interests for the purpose of group activity, as demonstrated by Olson, is also of basic significance for forestry associations (Glück 1976). Yet strong common interests are not sufficient for the formation of an association; additional processes are also needed for membership acquisition:

- **Legal Membership Requirement**

A simple instrument is the legal obligation for all those who benefit to join the association. The public institution of chambers is usually promoted by a legal membership requirement (Rudzio 1996). This enables the chambers to form large groups of members which have the corresponding resources and political clout. The agricultural chambers have organized all the owners of farming lands. In as far as they have formed their own forestry sections, they have also succeeded in including all forest owners.

- **Ideal Commitment**

The interests represented by an association appear significant and worthy of support to those who benefit from them. Which worker or employee would not agree to a negotiated increase in wages? Which forest owner would not

be interested in combating harmful emissions or introducing lower taxes? As explained, appreciation of the goals and achievements of the association's work does not result in participation or membership contributions. Only the ideal commitment to support one's own group leads to membership. The more convincing the group concept, the more members will be won over. The group's argumentation is strengthened by symbolic acts, such as festive events or commemorative publications, mutual experiences or common values, such as proper "environmentally compatible" forestry management. In traditional German forestry, the ideal bond of the group has a significant meaning, although this has not yet been clearly researched by scholars. The public surveys of the forestry associations regularly emphasize the importance of solidarity in the respective group. The ideal basis brings the members together, however it also defines the forestry interest groups in contrast to the other groups with interests in the forest. The associations are confronted with the task of maintaining an attractive forestry image and values for the core of their membership, and at the same time, appealing to other interested persons through policy renewal.

- **Services Provided**

The pragmatic way of winning over potential forest users as members is to offer additional services for members only. Associations of forest owners provide important information to their members about the legal developments, taxes and the timber markets. The chambers offer active help in the forests. The unions keep their members informed and provide them with benefits, such as legal protection, insurance, holiday homes and further education or training. The forestry associations emphasize further education. To accumulate new members, the associations have to come up with new services in accordance with their members' expectations. Many forestry associations consider there to currently be room for improvement of the services they provide.

- **Exclusion of Nonmembers**

The political achievements of associations, such as wage increases or higher financial support, benefit all those concerned. The formal exclusion of nonmembers is not legally permitted. Despite this, through their political influence and cooperation in many institutions, such as chambers, works councils or business administration, the large associations give potential members the impression that nonmembers run the danger of encountering less than ideal practical conditions. The chance of discrimination makes it

appear preferable to become a member in the corresponding organization (Rudzio 1996, p. 80).

By representing the corresponding special interests and employing the additional above-named incentives, forestry associations have managed to organize a great number of very different forest users. The associations of forest owners include around 200,000 private forest owners in one federal association and fourteen state associations. Their members comprise almost one half of the total private and corporate forests. The trade union "Bauen-Agrar-Umwelt" has 12 state unions in addition to the federal union, and has organized 30,000 members comprising around 35% of all the employees and workers in the forest sector according to an internal estimate from 1998. The Union of German Foresters with its 10,000 members includes around 55% of all civil servants and employees in forestry. The German forestry associations include one federal and eleven state associations and comprise around 7,000 members who are mainly employees active in forestry or civil servants, as well as forest owners. In contrast to these associations, which are geared towards foresters, the Association for the Protection of German Forests seeks members who are interested in protecting forests. It has 26,000 members including its state organizations and the federal "German Forest Youth" Association.

Although the above-named important associations and the numerous additional smaller associations represent the major part of the forest-related interests, the associations are not able to cover all the different interests in forests, in principle. The organizations' hopes that those concerned will also join them, if their interests are only important enough, will not be fulfilled due to the obstacles mentioned. It is not always possible to create the additional incentives required to organize larger groups for all the various different kinds of interests. In addition, the management of the associations is often not capable of thoroughly putting their members' potential to use in professional work. This has two results for policy making.

First of all, the associations can only represent a selected area of forest interests. The doctrine of pluralism (Truman 1951) established in the USA in the first half of the 20th century, according to which sufficient political freedom should ensure that all important interest groups participate in policy making in the form of associations, cannot be implemented in practice. Despite active associations, important political issues remain unacknowledged. This general social rule also applies to forest policy. The decision makers cannot be sure that forestry associations and other forest-related organizations sufficiently represent all the important issues

concerning forest protection and utilization. In contrast, if other advocates, whether it be public (forest) administration, the parties, public interest groups, forest science or other stakeholders, do not raise the issues, important forest issues will remain unacknowledged in politics.

In the second place, the representation of individual interests depends on the efficiency of the association. By offering assistance in establishing and expanding associations, it indirectly ensures that the various interests are taken into consideration. This concept is of great significance for the establishment of private forestry in the new federal states in the East of Germany (Krott, Marosi & Golya 1996). Strong associations are necessary in a viable private sector. Their formation presents a great problem in the new German states. Neither are the new forest owners familiar with the tasks of associations, nor do a large number of them receive any proceeds from their forests or have sufficient forestry expertise to cooperate in the association's tasks. Public forest administration bodies provide diverse means of support in establishing forestry associations. They provide experts, grant financial support, and help with administrative issues at the same time. The associations welcome this assistance. However it should only constitute help towards self-help in order not to make the association dependent on the state. Cooperation between the associations of the old states in the West of Germany is thus more significant than federal support. In the course of unification, all associations came into intensive contact with each other at an early period. The forestry associations in the new federal states in the East were able to pick up the thread of their successful tradition. With great commitment, the unions have also taken over the heritage of the former unions in the German Democratic Republic, and they have often succeeded in integrating elements of the existing unions. The forest policy of the new German states clearly shows how strongly the organization of interests depends on the performance of an active association.

5.1.3. The Internal Structure of Associations

The internal structure of the associations is determined by formal and informal rules and regulations, as in all organizations. Formally, all forestry associations adhere to a democratic structure which enables their members to influence the associations' activities. The associations' statutes provide for a general assembly of members – or a delegates' assembly in the case of unions – which is formally competent to make the weightiest decisions. All other bodies, such as boards of directors, advisory boards and committees, answer to the assembly, and their personnel is determined by the votes cast

at their general assembly. In contrast to the formal regulations, however, several informal decision-making processes have formed by which the members of the various bodies and their competencies are determined.

The personnel of the various bodies is determined according to **rule of proportional representation**, in addition to independent candidacy in elections. This enables them to more closely reflect the diversity of interests and distribution of power among their members. Forest-owner associations allot the right to vote according to the size of property owned by their members. They are concerned with representing private and corporate forest owners, as well as the various regions. In the scope of the federal associations, which unite the state associations in their membership, proportional representation should ensure that state members are considered according to their number and the total area of forestland they own. The German Forestry Council also adheres to a formally stipulated, complicated proportional representation. As a federal umbrella organization, its members include the associations of state, corporate and private forests, as well as professional and vocational organizations, the federal forest administration bodies and the forest science institutions. The number of delegates allowed for each individual member organizations should create an equilibrium between private and state interests in the forest sector in the German Forestry Council's decision making process.

In practice, the associations have the task of formulating a position based on their members' diverse opinions. The association's position has to reflect its members' common interests; it should be founded upon forest expertise, related to the current issues and able to quickly to changing circumstances. These requirements cannot be fulfilled by opinions which are mainly formed on the basis of their members' contributions, since it would overtax the individual members to expect them to formulate their own positions. The individual **members** lack the time and expertise for intensive participation. They consider their possible influence on the common opinion to be so marginal that the necessary effort would not be worthwhile. In contrast to the ideal of democratic opinion forming, members usually remain passive in their associations. Their primarily express their opinions in the process of two forms of election. First, the general assembly of members holds an election to vote its board of representatives and decide upon basic issues. The actual opportunity to make decisions is often minimal, because the ballot system lacks alternatives. General assemblies often limit themselves to acknowledging decisions already made by their boards of representatives.

Due to the very modest opportunities of codetermination in general assemblies, the second form of election is also quite significant. A member can express his disapproval of the association's activities by refusing membership. The threatening loss of members does not fail to have an effect on the board of directors. However this opportunity for codetermination is also strictly limited. On the one hand, the important additional incentives for association membership mean that the members also remain committed, even if they do not see their opinions reflected in the association's political message. For instance, a forester might remain a member just to receive the valuable information and improved access to financial support, even though he does not agree with the political activities of the forest owners' association. On the other hand, a member only has the entire choice of decision if he is able to join an alternative association which does a better job of representing his interests. However such alternative associations do not exist in the forest sector, as a rule. There is only one association of forest owners or one union for each state, instead of several among which the members may choose.

A minimum of willingness to become personally involved, apolitical incentives and few alternatives for decisions result in the decision-making contributions made by members of forestry associations being very modest, as is the case with all associations in general. Their **executive committees**, such as presidiums, or boards of directors and other expert committees, thus attain all the more significance. In an executive committee, the representatives elected by the members work on internal and external tasks and are supported by offices of the association. For instance, the working group of the German forest owners' associations has formed three expert task groups for private forests covering : 1) cooperation among companies; 2) legal issues; and 3) taxes. Experts tackle issues here; the positions are externally represented by the chairmanship which is, in turn, supported by its offices. The chairman's work and cooperation in expert committees take place on a voluntary basis, whereby his expenses are paid in varying degrees.

The chairmanship and the expert committees have at their disposition expert know-how and current information, and they are small enough to work together as a group. In practice, however, the decision-making process is still too slow even in a group of around a dozen board members. The task of elaborating working papers to assist in the decision-making process is thus delegated to working groups consisting of a few established experts. An association's work is highly characterized by individual experts, who have cooperated with the association over a long period of time. The chairman of

the board of directors is highly influential in the generally small boards of management in forestry associations, comprising 5 to 20 persons, although he is only active on a voluntary basis.

The boards of directors is coordinated by its **executive unit** or offices and they also implement decisions. Most of the larger forestry associations have experts working there on a full-time basis. The growing volume of information and contacts necessary for successful association activity poses a great challenge to the executive units, although it simultaneously gives them an informal influence on the association's activities. The chairman of the board of directors is the first person to turn to regarding many internal and external issues. He outwardly represents the association's positions and prepares new tasks to be tackled by the committees. The weight of the executive unit is the third factor which determines the association's decisions and activities, in addition to its members and their representatives in the board of directors. The increasingly professional nature of forest policy has increased the significance of the executive unit in terms of the association's success.

Establishing an executive unit or office requires considerable **financial resources** which are provided by the members of forestry associations. The smaller organizations in the states, such as state forestry unions, do not have sufficient financial means. However, the larger state organizations and federal associations can finance their administrative management with their own financial resources. The financial resource of membership fees is very important to forestry associations in order for them to maintain their independence and political functioning. Other means of financing, such as state subsidies, mutually funded projects for certain groups of users, marketing of services or public donation campaigns, hardly play a significant role for forestry associations. Despite this, several associations do attempt to cover their increasing need for funding through such supplementary financial means. This makes them dependent on the sources of such financing. Public support is always connected to certain state interests. Whoever receives state funds is limiting his capacity for political criticism. On the other hand, services force the associations to come forth with marketable offers. Saleable specialized literature, or special excursions, have to provide a high entertainment value for the client. The association's orientation towards the political interests it represents may seem to hinder these efforts, if it has a negative sales influence. The financial means accumulated through additional campaigns increase its capacity to function, yet on the other hand, they also establish political limitations. Other sectors, such as that of nature protection, illustrate the practical strategy of mixed financing where various

sources of funding have already been in use for a long time. Concerning forestry associations, this would mean that their present sole financial resource of membership fees would remain the main source of funds, however further sources could be used to an advantage.

5.1.4. Action Taken by the Associations

The association's activities are geared towards influencing forest-related politics and their own members. Political lobbying begins with the parliament, government and administration, other associations, international institutions and the general public. The most important tasks concerning members are continued training and education in forestry, on-site advisory services and self-administration.

- **Lobbying in Parliament, Government and Administration**

Legislation formulates the programs concerning the members' interests. For instance, stricter regulations in the Federal Forest Act, fiscal legislation or the Nature Protection Act can considerably limit the leeway of the forest owner and burden his business activities with additional costs. The associations of forest owners fight against such reform plans. The best opportunity for them to gain influence is the pre-parliamentary stage where bills of legislation are drafted. Through direct contact with top-level government officials, who also draw up their own proposals, elaborate the plans of the government and decide upon them, the associations are able to introduce those proposals they consider suitable early on in the drafting of new legislation. An informal meeting in a small circle can have more fruitful results than the formal proposals of the house of parliament or the ministries concerning hearings or written statements on ministerial drafts (Sebaldt 1997, p. 376). The formal instruments of participation better serve the self-presentation of previously determined positions, than the negotiation of new common solutions. However, public hearings make apparent the great diversity of positions in detail and thus provide less experienced lobbyists with valuable information.

The success of lobbying greatly depends on early information regarding new ideas and plans. To this end, informal meetings are also particularly productive. The representatives of associations use their social connections to establish contacts with other important stakeholders. The forestry associations benefit from their traditionally good links to the social environment of the farming sector. However, they do not have such good

social access to the green-alternative circles, although these are also involved in forest issues. Individual political information is usually passed on by means of telephone calls, letters and faxes, as well as via the new mode of communication of the Internet. The more explosive an issue, the more likely an association representative will prefer to have a personal conversation. It is therefore important for the associations to have a representative wherever the seat of the government is located. The forestry associations are thus destined to follow the German government to Berlin, although this is linked to relatively high costs for these small associations.

Although the associations' activities primarily take place on an informal and confidential level, their representatives are not by any means considered conspiratorial in expert circles. Quite the opposite, successful association representatives have to be serious, competent, cooperative and efficient (Sebaldt 1997, p. 68). In addition to seriousness, they need to be strictly discrete and able to maintain their argumentation based upon facts and long-term interaction. Tradition has made it easier for forestry association representatives to become acquainted with these rules of the game at an early time and adhere to them.

- **Negotiation with Other Associations**

Forestry associations do not always have to wait for government institutions to take action; they can also anticipate state policy by directly addressing problems and regulating them amongst themselves. The most important negotiations between associations constitute bargaining over collective agreements. Unions and employers' organizations negotiate autonomously over the central conflicts issues regarding wages and working conditions. Among others, they negotiate pay, working hours, social benefits, retirement and widows' pension, holiday entitlement and special stipulations, such as that concerning protective gear (Collective Agreements 1997). A dense regulatory network has developed for the bargaining process in Germany, which has given the associations a public role in the form of this task. The principle of autonomous wage bargaining, which prevents the state from interfering with labor conflicts, is particularly significant for the associations.

With concern to other fields of conflict in forestry, there are no comparative regulations for settling conflicts amongst the associations. For instance, the forestry associations have complete liberty as to whether or not and how they cooperate with nature protection associations. A willingness to discuss matters clearly exists among the associations. However the exchange of

information rarely leads to negotiation of the conflicting issues, and even more rarely results in concrete agreements. One example is the "Cooperative Declaration of the Working Group of the German Forest Owners Association and Friends of the Earth Germany" (Allgemeine Forstzeitschrift 1996). This declaration records important common interests, such as the call for a reduction of air pollution, a CO₂ energy tax, reimbursements for forest damage caused by emissions, adjustments for stipulations that put the timber trade at a disadvantage, and worldwide forest management in keeping with biological sustainability. The associations have agreed upon common positions on important issues, and hope this clarification will reduce mutual conflicts and improve the strength of their arguments vis à vis third parties. The associations have assured each other of their willingness for further dialogue with concern to the remaining unsolved conflicts.

Regarding associations in Germany, it may be said that they dedicate more attention to seeking new partners in other associations than to their conflicts with representatives of the opposing position (Sebaldt 1997, p. 182). Forestry associations likewise make an effort to establish a stable cooperative basis of common interests in the sector and its related fields. One such important active cooperative institution is the Timber Sales Promotion Fund. By promoting sales and utilization of products from German forestry enterprises, it serves the common objective supported by all forestry associations. By means of the law, the state has regulated its cooperative activity as an "institution according to public law" and secures its resources in the form of a compulsory fee for trade and utilization of domestic timber (German Federal Law Gazette issued on 13th December 1990, amendment dated 1993). The governing board thereby opened up the opportunity for interested associations to cooperate, after negotiating terms, with one representative each of the state forests, corporate forests and private forests, as well as representatives from the German agricultural sector and the German Forestry Council. The Forestry Sales Promotion Fund is a state-promoted, institutionalized, mutual undertaking of the associations concerning a limited common task which is managed according to the model of self-administration.

- **Lobbying International Institutions**

The numerous international political activities concerning forest and forestry issues constitute a growing task field for the associations (Humphreys 1996). Those targeted by lobbying are either international state organizations, such as the European Union, or other "international regimes," meaning task-

oriented groups for international cooperation (Glück 1996), such as the various groups in the framework of the Agenda 21 process towards securing worldwide sustainable development (Grayson 1997).

In the scope of international lobbying the associations are confronted with more complex contacts than in a national scope. International organizations and groups are often comprised of state and association stakeholders, they have diverse tasks and multiple competencies which are mostly strictly limited in comparison to national contacts. By no means do they form a world governing or administration body which could provide a clear and reliable point of initiation for the associations. Identifying influential decision makers, and establishing personal contacts with them is particularly difficult and takes decades. Participation from the start in the establishment of forest-related international regimes has a great significance on the influence of an association. Such participation has very serious consequences on the political strategy of a forestry association, if it is not actually interested in establishing the specific regime, e.g. because it is dominated by environmentalists, Refusal to cooperate makes it more difficult to establish the regime, or if many associations holding the same position group together, they may completely hinder the regime. Non-lobbying is a further option to active and early participation, which enables the associations to assert their interests. The numerous attempts to establish regimes have underlined the importance of non-participation in an international scope.

International lobbying is characterized by a high degree of uncertainty. This gives rise to a higher failure rate, but on the other hand it also results in great coincidental success stories, such as would be impossible in the deadlock of national structures. The energy and expense of lobbying is on the increase due to the higher risk and the vague state of information (Strauch 1993). However only poorly vested international federations, i.e. alliances of national forestry associations, are found on the international level of the forest sector.

On an international scope, further levels of political negotiation and decision making are added to those of the national level. National and international bodies deal with the pending issues, and these levels influence each other mutually. The complex decision-making system opens up new chances for lobbying and forming pacts, or building up resistance (Grande 1996). For each issue the association's contacts multiply, since they have to convince the national decision-makers as well as international bodies. This creates a longer and more difficult path for the politicians to follow towards consensus

which, in turn, favors the associations in as far as they can block unfavorable international political regulation. However, the special administration bodies also know how to use the interplay between both levels for the purpose of warding off the association's influence (Hogl 2000). For instance, the argument that the results implemented by other government representatives in international negotiations are also binding for one's own administration, and leave no further leeway for bargaining with one's own associations, also serves as an excuse for not taking the positions of the association into consideration. The short period allowed for international decision making also limits the influence of the association which has greater access to the preliminary decisions and the following implementation. Until now, experience with international political regulations concerning forests or forestry indicates a significant broadening of the task field for forestry associations, where it will be necessary to investigate and practically employ the new opportunities to take an influence.

- **Public Relations**

The associations know how important public opinion is to support their issues. All associations' programs include the important task of public relations (PR) work. The members of the association's management have already generally learned to use the various PR instruments in practice, since employing PR specialists would go beyond the capacity of the individual forestry associations. The selection of messages and tools is thus not based upon a uniform PR concept, instead the associations repeatedly implement measures established and developed in practice, whereby innovations are only slowly integrated.

The traditional PR work of the individual associations contrasts with the image campaign "Forst & Holz" conducted by the Forestry Sales Promotion Fund. Since 1994 the most important forestry associations have joined together to cooperate in a wide-scoped advertising and public awareness campaign (Holz-Zentralblatt 1995). The equivalent of 15,000,000 EURO were made available over the first two years for employing an advertising agency to professionally plan and conceptualize individual instruments, such as a basic information brochure with a circulation of 400,000 and 100 advertisements in both the general media and the specialized media during the first year. The campaign under the motto "Wood give your world a face again." has been further broadened since its introduction. Its strong financial basis and professional coordination have made it even clearer that the individual associations and their modest resources cannot achieve public

awareness in comparison or even successful advertising in the general public with their own PR work.

Those instruments, which are useful to the association, have to be able to transport the special forestry-related arguments and cannot be too costly. Preference is thus given to self-publications and written press releases. These two instruments enable the associations' experts to formulate their own special issues and arguments. However the success with recipients is limited. The experts' arguments, however well-founded they may be, neither form the journalists' sole criterion for selection, nor the most important one. It poses a great problem for the forestry associations to try to fulfill the main criteria for attracting attention, i.e. prominence or "sex and crime," which can transform an expert statement into a news item for the mass media. The media echo is correspondingly small regarding press releases. In terms of self-publications on the topic of forests or forestry, the bottleneck is found with the target groups instead of at the media. The associations' intention of reaching the entire public, using brochures to reduce costs, cannot be fulfilled. Quite the opposite, forestry publications run the risk of being too specialized for the layman and too general for the specialist to attract any attention. The widespread impact that forestry publications aim for cannot be achieved, despite the fact that they are highly favored by forestry stakeholders.

The meetings of specialists, which are regularly held by the associations, have a great echo in the forest sector and sometimes beyond. For instance, the German Forestry Council makes a strong public appeal at its annual meetings, and the forestry associations also consider their special meetings one of their main activities. The associations make an effort to secure prominent speakers, such as government ministers, who are able to arouse an interest in specific groups, as well as in the general public. At the same time, this enables speakers to be integrated in the whole meeting so that they can help define the position of the association.

The associations also reach out to their own members and decision makers in the forest sector with their own publications, such as "Forstlichen Mitteilungen" published by the Bauen-Agrar-Umwelt Trade Union; "BDF-Aktuell" published by the Union of German Foresters; or the "Bayrische Waldbesitzer." Having a journal to call its own counts among the minimum prerequisites of an association, even if its production creates a considerable burden on the management. Members receive regular information in the form of the journal, as well as it being visible product in return for their membership fee which includes a subscription to the journal.

Dealing with the specialized forestry print media and the general print media is also one of the tasks of PR. Association representatives take the opportunity to make their position on current issues known via direct contributions to the specialized print media. An association's position profits from closely linking its own expertise and its political interests. Contacts with the general print media are primarily established through individual journalists, in addition to press releases. The representatives of the association offer them special information in personal talks which are often conducted by telephone. Press conferences are of lesser importance for the associations.

- **Further Training and Education for Members**

Further training and education, above and beyond providing current information for members, is an important issue for all forestry associations. This should enable the individual member to better execute his or her professional or vocational tasks as a matter of self-interest. According to the particular interests, this may involve forestry training and education for forest owners, forest officials and civil servants, or loggers.

The educational tasks overtax the resources of the individual forestry associations. They thus seek cooperation with the state. For instance, the "Bavarian School of Forest Education," founded by forest owners as a self-help institution in 1937, was transformed into a public educational institution for private and corporate forestry in 1970 (Chrombach 1998). The selection and structure of curricula takes place in close cooperation with the Bavarian Association of Forest Owners, as well as the public forest administration. The associations encourage their experts to participate in teaching. Close cooperation has also developed between associations and the state in other countries with concern to further training and education in forestry.

The forestry associations are also free to cooperate with other associations which represent the same group interests outside the forest sector. The Union of German Foresters has based its further education system on the educational and social system of the German Federation of Civil Servants. Company or union training institutions likewise offer many forms of training and education which can be useful for members of the forest sector.

- **Self-Administration, Advisory Services and Extension Services**

The organization of an association enables it to take over other tasks above and beyond that of its own administration. Thus associations not only

promote improved political problem-solving by the state, they also deal with their members' problems by initiating their own activities. "Self-administration" is particularly well developed in the chambers of agriculture. In states such as Lower Saxony, where the chamber of agriculture has also taken over the task of forestry, the self-administration of forestry tasks, which are carried out elsewhere by public forest administration bodies, is well developed (cf. Example 5: Agricultural Chamber of Hannover 1996).

Example 5: Tasks of the Forestry Section in the Chamber of Agriculture in Hannover (Source: Chamber of Agriculture, Hannover 1996)

The task is to promote the expertise of those employed in the agricultural sector (including forestry) in harmony with the interests of the general public, and to observe their special interests. The economic, social and cultural representation of the agricultural sector (including forestry), and those who are employed in it, is not the chamber's task.

The forest sector has been entrusted with the following tasks as legal obligations, stipulated duties and to uphold public interests:

- *Promotion and growth of forest production through extension and advisory services for afforestation, maintenance and protection*
- *Further training and education*
- *Advisory services for the utilization and sale of forestry products*
- *Promotion of forestry alliances*
- *Forestry extension services (=conducting forestry work) in corporate and cooperative forests on commission*
- *Financial promotion of forestry work (including granting approval)*
- *Site mapping in managed forests*
- *Extension and advisory services in matters concerning hunting*
- *Forest expertises (including forest valuation)*
- *Assisting and approving company reports*
- *Expert assistance in enforcing the State Forest Acts (including cooperation in forest land-use planning)*

- *Expert assistance in enforcing special legislation, such as that concerning nature protection, land consolidation, regional planning and land development.*

For the purpose of self-administration, the central office has a separate forest sector; and there are twelve forestry offices (responsible for an average forest area of 32,500 hectares including 2,700 forest owners) with local district forestry offices.

The tasks elaborated, according to the example of the Hannover Chamber of Agriculture, have been distinguished by three developments which generally apply to self-administration, advisory services and extension services for enterprises by associations:

- 1) Advisory services and extension services, i.e. active assistance in conducting work, have been increasingly provided over the past years as a paid **business service**. An association does not limit its assistance to practical information for members, instead it conducts forestry work with its own personnel and resources. A member commissions the association to conduct forestry work and has to pay an increasing sum for these services. Providing business services changes the relationship between association and member, since it establishes a business-client relationship in the scope of free enterprise. The association offers to conduct forestry work in the form of services which can be commissioned by the client. This business relationship imperceptibly promotes behavioral patterns in the association and its members, which may also work against the representation of common interests. The association will pay more attention to marketability and proceeds from its services, and will reduce its non-marketable activities in the consulting field. Fulfilling public functions, which do not promise any immediate proceeds, such as site mapping or forest services, may be reduced consequently. As a service provider, the association takes on a task that contrasts with its public function of engaging the forest owner to work in his own forest as much as possible. In as far as a member also becomes a client, he will seek to choose among the various providers, namely private consulting firms or state forestry offices. An association thus loses its unique position from a members' point of view.
- 2) The strained position of representing all the members' interests in the scope of public functions as well as providing paid services, on the

basis of profit-making, is eased by the special organization of timber production in the form of forestry alliances. Forestry alliances or mergers serve towards improving the management of their members' forests. They coordinate timber production, conduct regular forestry work themselves and coordinate their own timber sales. They provide their members with advisory services for these tasks. They are a business institution for self-administration which takes over common business tasks. The associations support the establishment and management of these mergers or alliances. Task distribution of business activities in the alliances, and support provided by the associations, make it easier for both institutions to optimally fulfill their tasks. However, an increase in business services provided by the associations on the one hand, as well as regional "forestry alliances" of local mergers, means that the tasks overlap. This results in competition among the forestry associations or alliances of forest owners, which is contested by means of diverse cooperative relationships and reconciliation efforts.

- 3) Self-administration is formally a separate function from the **political representation of members' interests**. The Chamber of Agriculture only has the task of technical promotion rather than that of economic or political promotion. Its aloofness to representing interests creates leeway for business activities and practical involvement, such as site mapping or assessment of tangible assets. Practical problem-solving in forestry does have consequences on the political position. Practical arguments or business resources acquired on the market often provide significant support for political interests. Although it may formally be apolitical, self-administration thus attains considerable informal political influence.

The associations that represent employees' interests also give high priority to advisory and extension services. This does not directly concern business problems, instead it is geared towards the members' **interests and professional/vocational or private problems**. The unions, in particular, have a long programmatic tradition of extension services for individual members in the scope of workers' solidarity (Sebaldt 1997, p. 187). Among others, further training and education, insurance protection, as well as leisure-time and cultural events are offered for the individual members.

5.1.5. Potential Influence of Associations

Through their activities, the associations attempt to positively influence politicians and political players, public administrators and other associations regarding the interests they represent. The power of each individual association is very significant in getting the stakeholders to change their behavior. The stronger an association, the more likely it can lobby politicians to undertake action which they would not actually have planned. Only by means of political lobbying can financial support be secured for forestry against the politicians' intentions to save funds, or can the limitations be circumscribed, which are called for by the nature protection lobby. Although they do not publicly speak of power, the associations are well aware of their various degrees of political clout on account of their daily political conflicts. A self-evaluation conducted by Mann (1998) in the year 1997 estimates the German Forest Owners Association to be the most influential association; the state branches of the Union of German Foresters, the trade union "Bauen-Agrar-Umwelt" of the German municipalities and the agricultural chambers hold middle positions. The German Forestry Association, the Working Group for Natural Silviculture and the Association for the Protection of German Forests all have relatively little influence. Estimating the other's power is important, since appraising the opponent already greatly influences decisions made in the scope of political conflicts.

On the other hand, it is very difficult to gain an objective picture of the associations' sphere of influence, as is always the case regarding the distribution of power. An analysis of the various factors influencing the clout of the associations makes evident their entire influence, whereby the following elaboration has to be limited to qualitatively assessing the associations' potential influence, due to the lack of scholarly material available. The associations amass power by means of formal information and decision-making rights granted to them by law. Equally important are the informal instruments of power including everything from information processes to the members' dedication to alliances with partners.

5.1.5.1. Formal Influence Potential

The **right of assembly and coalition and the right to petition**, anchored in the basic code of law, provide the formal basis for the education, training and activities offered by associations (Böhret et al. 1988, p. 60). In addition, special legal stipulations enable those with organized interests to participate in the work done in parliament and government. The standing orders of the

ministries provide for the participation of associations in drafting bills, as well as expert advisory services and the forming of advisory committees. The associations are also to be involved in the drafting of legal directives.

The *invitations made to associations to participate* also apply to the enforcement of special acts where chosen associations are either to be informed, given a hearing, or even involved in the decision-making process, in a few cases. One instrument of the Federal Forest Act, supporting the participation of associations, provides for forest advisory committees which vary in their composition from state to state. The associations have the right to nominate representatives to the advisory committees, however these are appointed by the forest administration board. In keeping with the Forest Act of Hesse (Article 61), forest advisory committees are granted wide-reaching participatory rights, e.g. They are to be given a hearing with regard to individually listed legal issues, and require the approval of the district of municipal forest advisory board for several decisions, i.e. deadlines for re-forestation, approval of afforestation or measures for limiting access to a forest. The advisory committees have a broad-scoped right to be heard; in the face of a conflict, however, the corresponding ministry of forestry is responsible for the final decision.

A key role in the participation of associations is played by public institutions with the **right of self-administration**, such as the chamber of agriculture. It is fully legally integrated in forest-policy decision making and enforcement. At the same time, the internal expression of their will highly depends on the associations themselves, since their decision-making bodies are appointed via elections in which the associations successfully participate as campaign groups. For instance, the Farmers' Association dominates the Chamber of Agriculture.

In contrast, **internal staff representatives** are of great significance to the associations which represent employees' interests. Personnel committees in public service, and works councils in private companies, have wide-scoped rights to information and codetermination regarding personnel issues and the regulation of working conditions (Schwarzer 1996). The councilors are appointed by election, whereby the unions are the most successful group and thus have a considerable indirect influence on state forestry enterprises.

In the political regulation of salaries or wages and working conditions, the **collective agreements system** assigns a public task to the trade unions and associations of employees (Rudzio 1996, p. 103). The autonomous collective agreements, negotiated by the rate-making associations according to a broad-

scoped framework of regulations, are declared binding for all employees and employers by their committee which is either set up in the federal ministry or the state ministries. The unions and management thus actually have the monopoly regarding negotiation or strike. The formal regulations strengthen the associations and simultaneously lay down a certain procedure for collective bargaining, with the result that the associations cooperate well and rarely call out strikes or other such drastic measures.

5.1.5.2. Informal Influence Potential

- **Expertise, practical solutions and experts**

By employing their expertise, the associations can have a considerable hand in formulating political programs and enforcing them. The associations are in close contact with forestry enterprises and regularly receive information on impending problems. The detailed elaboration of undesirable developments provides politicians and administrators with important information on the need for regulation. In the forest sector, special administration also has available extensive practical information, particularly from its experience in managing public forests, advisory and extension services, and the silvicultural experimental and planning stations. In contrast to general politics, the federal politicians responsible for forestry thus do not depend on expertise from the associations to competently assess the state of forestry or the forest.

The practical solutions suggested by the associations are of more importance. On the one hand, the question is how to emphasize those processes that favor self-interests, as well as to defend the "established practice" against those reforms suggested by the state, which may adversely influence self-interests. On the other hand, the associations also try to introduce new processes which are better suited to forward their interests than in the past. Private forest owners hope that new advisory service models will result in new tasks for the larger-scale forestry enterprises which can provide and charge for such services themselves. The special opportunity offered by new models lies in their potential to serve those involved better than before. Such ideas can be supported by practical argumentation. The more innovative the associations are in this sense, the more political influence they can attain. The above-mentioned advisory services model does not fulfill these demands, because it opposes the self-interests of public forest administration to play a central role in consulting. Thus, experts' arguments are insufficient for succeeding in this matter.

In the form of their members and functionaries, the associations have a resource which they can use for introducing their positions into politics via personnel transfer. The percentage of members of the German parliament, who are linked to associations, constitutes around 50% (Rudzio 1996, p. 88). Forestry associations also have spokesmen in parliament, who participate in the work on forestry issues and hold a central position in the advisory committee on agricultural issues. The association's reliable contacts fulfill their political functions responsibly and independently, i.e. independent of the association's direct influence. However, their immediate knowledge of the association's issues and the speedy exchange of information promote the interests of the association to which they are most closely connected. Due to the small size of the forest sector and its associations, cooperation with larger sectors, especially agriculture, and larger associations, such as the Farmers' Association, the unions and the alliance of civil servants, plays an important role regarding personnel transfer of forestry experts into political institutions.

- **Practical and Ideological Orientation towards Common welfare**

Associations legitimately try attain specific political results for their members which will not benefit others. They represent partial interests towards the political-administrative system which is responsible for public interests and common welfare. Political measures are always legitimized by their contribution to common welfare. The associations thus increase the acceptance-rate of their demands by highly integrating them into the image of common welfare (Rudzio 1996, p. 96). For instance, the forest owners' associations always emphasize their contributions to forests in their public lobbying. They claim the measures they call for are absolutely necessary for the maintenance of forests, and that only economically healthy forestry enterprises are able to ensure the maintenance of the forests, which lies in the interest of the public. Such a stance, which makes demands in the interest of the owners and simultaneously emphasizes the forest's benefits towards common welfare, characterizes the associations' global forestry policy in all its many variations.

The associations' orientation towards common welfare has both practical and ideological dimensions (Mayntz 1992). On the practical side, there are areas that overlap between the financially stronger forestry enterprises or highly qualified and highly paid employees and the sectoral goals of an economically and ecologically highly developed forest sector. On the other hand, common welfare goals are weakened by the individual interests, e.g.

when productivity goals of forestry enterprises threaten the legally stipulated nature protection standards in the forests. The associations' practical strategy involves suggesting expert solutions to problems arising in forest policy, which serve their self-interests as well as promoting common welfare. The ideological pitch of this strategy involves the publicly effective attempt to prove that common welfare is also promoted even where it does not take hold in practice. Both of these methods count among the most important power strategies of all of the associations.

- **Members' Decision-Making Potential**

In many ways an association's power is based upon the strength of its members. This resource constitutes the strength of each individual member and the total number of organized members. Members, who fulfill important business functions just like employers and employees, thereby have the potential to refuse something which amounts to political lobbying. Forestry enterprises utilize and maintain their forests on site. The employee's willingness to work in the forestry enterprise therefore has great bearing on their political success. Their threat to reduce work or completely refuse forest policy regulations correspondingly increases in impact. However the sinking financial power of the forest sector reduces the potential threat by the forestry enterprises. In the case of the forest owners, it can be assumed that individual members have additional social influence potential over and above the economic significance of their forestry enterprises. Yet the individual worker or employee only has a minimum economic threat potential and can only do political lobbying in groups of large numbers.

The absolute number of members, as well as the degree of organization, i.e. the ratio of those organized association members in comparison to the number of possible members, both contribute to the weight of the association. The absolute number of the associations in a small sector such as forestry can basically only reach a small membership which is negligible for political decision-makers in contrast to other social or economic groups. The degree of organization is more favorable. The independent associations of forest owners comprise over 50%, whereby the Chambers of Agriculture comprise 100% due to the legal obligation of membership. A high degree of organization legitimizes an association to speak for all those concerned. In contrast, the associations of employees, have to suffice with a much lesser degree of organization.

A further factor affecting the members' decision-making potential is the ability of the association to commit its members, i.e. meaning that the

association can compel its members towards certain behaviour patterns. By means of this commitment, the association is able to bundle the individual members' activities into a common decision-making potential. The classic example is a strike organized by a union, which is only effective if everyone participates. The counter measures taken by the companies, the lockouts, have to be supported by all of the companies. The great political impact of the associations in the tariff negotiations is due to the legally anchored ability of the association to commit its members in this regard. Concerning other political issues, the degree of commitment attainable by the forestry associations is very difficult to estimate. It cannot be guaranteed by formal regulations, instead it has to be established by means of informal internal loyalty.

- **Financial Resources**

Financial resources are of essential importance for the continued existence and influence of an association. On the one hand, they provide the material basis to sufficiently build up the internal administration body for actively taking part in politics. On the other hand, associations generally employ financial resources to directly support other politicians, in particular political parties, thus winning over political allies. As elaborated, a forestry associations' limited resources are often not sufficient to finance a full-time managing director, in the first place. The second option of buying a political advantage through their financial resources is ruled out for forestry associations. The financial leeway of the associations is very limited in the small and financially weak forest sector.

- **Political Alliances**

The cooperation and unity of the forest sector is also repeatedly emphasized by the associations as being their goal. They claim that forestry interests are only sufficiently strong as a united force to attain political power (Niesslein 1995). This assessment complies with the findings of political scholars. The fragmentation of the associations weakens their political influence, whereas uniform action increases the pressure on politicians and administration (Schubert 1989). The German Forestry Council, which represents the associations, the public forest administration bodies as well as the scientists and scholars, institutionalizes the strategy of uniform action in a large alliance of forest interests. Although the German Forestry Council actually does unite all the major forestry stakeholders, and celebrated its 50th Anniversary in the year 2000, it has still not become the most influential

representative of forestry interests. The political force of the alliance is frequently limited by the individual interests of the various associations.

To be effective, alliances have to be based upon common objectives. It is not necessary for the partners to be in complete agreement regarding all issues, yet wherever the alliance requires political clout, common interests have to be found. A growing number of members makes it increasingly difficult to define common interests. Topics creating internal conflict are eliminated, since they would break up the alliance. The pressure to find common grounds forces the German Forestry Council to take up general, higher level topics, such as forest conservation or financial promotion for the entire forest sector. Only on rare occasion can the German Forestry Council politically support specific interests, since there is no consensus among the member organizations which, for their part, represent the interests of private forest owners, public forests, as well as other groups. The constraints imposed by the individual interests substantially weaken the German Forestry Council.

In major political conflicts, the forestry associations make use of the pragmatic strategies of the alliance which are geared to the various issues or interests on a long-term basis. According to the topic, multiple alliances are created among all the different positions of interest. Although the most intensive cooperation takes place among the various associations representing the major interests concerning private property, employees, public forests and forest protection, the forestry associations also form alliances over and above the main topics of conflict in the case of specific side-issues (Mann 1997). They broaden their alliances by cooperating with associations belonging to other sectors, specifically agriculture and individual nature protection cases, such as the cooperative institution "Wald in Not" (Endangered Forest) which was founded for the purpose of combating forest die-back.

The effectiveness of alliances also depends upon whether they comply with the political-administrative structure of their contact partner. Fragmented associations are particularly weak when confronted with a united political administration body. Their fragmentation is less of a disadvantage, if their contact partner is composed of several state institutions which compete amongst each other (Schubert 1989). Individual forestry associations thus find it difficult to influence the bundled forest policy-making competence of public forest administration. A greater chance to gain influence may be had either through lobbying exercised by several different associations, or by using the competition among the various state administration bodies to claim partial competence for general forest issues or forestry. This enables the

private forest-owner associations to make use of the finance minister's interest in cutting the budget and put pressure on public forest administration bodies which rely on funding.

5.1.6. Cooperation with the State

The state can govern through its democratically elected politicians and its administration without the need of any associations. From the state's point of view, the influence exerted by associations is initially considered a nuisance. The associations interfere with political decisions regarding legislation and enforcement. The lobbying they do to promote their special interests hinders the state's decision making. Forestry associations actively oppose improved environmental standards for forests.

The associations may also be an advantage to the state. In as far as the state and the associations can form a consensus regarding certain activities, this makes it easier for the state to implement these measures among its citizens. The associations thus become the state's partners concerning unpopular measures. For instance, if forestry associations have agreed on certain standards of proper management, the pressure is increased on the individual forestry enterprise to accept them.

The state's relationship with the associations spans everything from opposition to political alliances. Either a pluralistic or a corporative system of associations is formed depending on the focus (Heinze 1981; Williamson 1989).

In the case of **pluralism**, the state is interested in retaining the largest possible margin for action and decision making. It therefore maintains a great aloofness to the associations. They raise their demands and try to lobby the politicians. The public bodies have to give them a hearing. However they do not have to negotiate with the associations. None of the associations is given preference; instead the state strives to play out their different interests against each other. The public bodies make their decisions without including the associations. By achieving greater autonomy in decision making, the state is confronted with the disadvantage of difficulties in implementing these decisions, since the associations do not feel responsible for the state's decisions, if they have not participated in the decision-making process.

In a pluralistic system, the associations pursue their interests through intensive lobbying, and do not avoid open conflicts with state policy. The

strength of the associations is based upon their members. This means there is competition among the associations in a pluralistic system. They try to acquire new members with the most attractive offers possible. Consequently, the associations are only interested in promoting those interests, which can help them attract new members.

Any state striving towards the best possible implementation of its politics will be interested in closer cooperation with the associations. This leads to the development of **corporatism**. Those associations capable of finding compromises and willing to obligate themselves are suitable negotiation partners for the state.

An association's willingness to compromise results from a strong position which is not endangered by competition from other associations. As long as an association fears the competition, it will avoid compromises, since it can maintain its members' support only by making comprehensive demands. In the face of compromises, its members will drift over to other competing associations.

By means of demanding a great degree of pressure for internal obligation, an association is able to hold accountable its entire membership to adhere to the solutions it has negotiated. The state can depend on it that an agreement made with the association's managing director will be carried by all its members.

In corporatism, the state supports the establishment of associations which are capable of finding compromises and obligating their members. It supports a system comprising a few large associations which divide their tasks amongst themselves in order to compete as little as possible. The above-mentioned system of "chambers" is an example of a legally anchored corporate state. Each chamber has its own legally anchored and limited special task field. On account of the obligatory membership, the chambers do not have to worry about their membership numbers and can enter into compromises with the state. Thus, the chambers not only represent their members' interests in the face of the state, they also support the state in implementing political decisions.

In forest policy practice, the relationship between the forestry associations and the state is simultaneously distinguished by pluralistic and corporative elements. The forestry associations compete amongst each other, in part, and make critical demands on the state, when political regulations adversely affect their fields of interest. This pluralistic criticism does not hinder the

associations from entering into negotiations with the state on certain issues and cooperating with the German Forestry Council in a common institution together with representatives of the public forest administration bodies according to the model of corporatism. The very limited obligation of the German Forestry Council clearly indicates the limits of corporative cooperation in the forest sector. However, in comparison to the environmental protection sector, cooperation between the state and forestry associations is much closer and more trustworthy. On the whole, the relationship between forestry associations and the state can be characterized as predominantly corporative in Germany. The state seeks to negotiate important forest policy regulations in cooperation with the associations, which facilitates the enforcement of measures taken.

5.2. Nature and Environmental Protection Associations

The framework for political action, elaborated above, applies to nature and environmental protection associations, as well as forestry associations. However, several special characteristic qualities will be indicated, which result from the current development of nature and environmental protection associations, as well as their fields of work (cf. Table 2).

Table 2: Selected Nature and Environmental Protection Associations

Association	Mandate	Organization and Members 1994
German League for Nature Conservation and Environmental Protection) founded 1950	Nature and environmental protection	National Federation of 108 member associations 2.8 million members
Friends of the Earth Germany (BUND) founded 1975	Nature and environmental protection; politically active / market oriented	National federation of 16 State associations and 2,200 regional and local groups; youth section; 217,000 members
Greenpeace Germany founded 1980	Environmental protection; critical of the system / market-oriented	Central hierarchical structure; dependent on International Council 2,000 members / 81 groups with 500,000 benefactors
Birdlife International (NABU) founded 1899	Nature and environmental protection; traditional; market-oriented	Federal Association of State associations , approx. 1,200 local groups, separate state association in Bavaria 205,000 Members
Worldwide Fund for Nature Germany (WWF) founded 1961	Nature and environmental protection; traditional; market-oriented	Foundation with professional staff and structurally isolated benefactors 104,000 Members
Association for Homeland and Environment Germany (DHB) founded 1904	Integrated nature protection / tourism; traditional	Federal Association of 18 State associations and 8,000 local groups approx. 3 million Members
Federal Association of Environmental Protection Committees (BBU) founded 1972	Environmental protection; critical of the system	Federation of autonomous and heterogeneous state associations, as well as regional and local groups 200 groups/ 570 benefactors
Friends of Nature (International) founded 1895	Integrated nature protection / tourism; traditional	Federation of State associations 110,000 Members
Institute of Applied Ecology founded 1977	Environmental protection; critical, scholarly	Non-profit organization with structurally isolated members who provide financial support 5,000 Members
Robin Wood founded 1988	Nature and Environmental protection; critical of the system	Decentralized, strictly democratic association 2,400 Members

- **The Diversity of Nature and Environmental Protection Interests**

Over the past decades, these associations have broadened their interests from nature protection to comprehensive environmental protection. Traditionally, the main task of nature protection associations concerned protecting individual species of flora and fauna. This developed into the protection of biotopes, which already comprised the entire forest and its surrounding habitats. However, the goal of protecting a biotope reaches its limits when pollutants, which are carried through air, water and soil, threaten its destruction. This problem can be alleviated by broadening the goal to cover general environmental protection. Correspondingly, most nature protection associations have broadened their nature protection goals to include environmental protection (Hey & Brendle 1994, p. 133). These comprehensive goals result in increasing contact with forest sector issues. New conflicts result, as well as opportunities for cooperation.

Concerning the economic utilization of nature, those associations with the exclusive aim of nature protection can be differentiated from those with integrated nature protection goals. The exclusive aim of nature protection is limited to ecological standards, such as rarity, diversity, naturalness and vitality, as well as cultural uniqueness and beauty. These usually contradict forestry's economic utilization goals. However, integrated nature protection goals combine nature protection with the utilization of natural resources. This also includes the area of recreation with the German Alpine Club which hopes to link tourism with the protection of the Alps. Integrated nature protection goals are close in content to those of forestry, since forestry also wants to maintain the forest as a basis for sustainable utilization and opposes forest destruction by third parties, such as that caused by emissions or forest conversion. Conflicts with exclusive nature protection interests arise wherever sustainable utilization of the forest is to take place without any further limitations. However even in this case, modern nature and environmental protection involves initiatives by which sustainable utilization can be included in nature protection. Such efforts should be able to reduce these basic conflicts with the goals of forestry. It should also be noted that having the same goals does not necessarily lead to cooperation. Instead, this may cause severe competition amongst the associations or sectors.

- **Organizational Weaknesses of Nature and Environmental Protection Associations**

Organizing volunteers for the purpose of achieving specific natural protection goals is basically more difficult than the organization of business interests, since most important nature and environmental protection goals constitute public goods from which everyone benefits. Everyone profits from clean air, independent of whether or not they bother to become a member of a nature or environmental protection association. And in comparison to the magnitude of the task and the great number of people who promote clean air, an individual person's contribution towards achieving the association's goal would seem so small that he or she might consider it negligible. Since most people tend to draw a negative balance when comparing their specific expenses for membership in a nature or environmental protection association with the benefits gained by it, they do not join such an association themselves, even though they hope that a sufficient number of other people will.

A voluntary nature or environmental association has to solve the problem of motivating people to become members by means of creating special incentives. On the one hand, the associations untiringly conduct public awareness campaigns about the dangers threatening the environment, they call for responsible behavior, and offer their members additional special services. However they only succeed with target-group-oriented membership campaigns when using the modern marketing methods. The spectacular campaigns conducted by nature and environmental protection associations are an essential factor in recruiting members and thus also promoting the survival of their own organization. The non-governmental organizations (NGOs) compete amongst themselves for the environmentally conscious target groups in their attempt to attract new members. The elaborated structural problems hindering the organization of environmental protection interests create an overall weaker position for the system of environmental protection associations in contrast to that of the associations in the business sector. An equilibrium has not yet been established between environmental protection and business interests in the system of associations. However, the influence of environmental protection associations on forest issues has grown over the past decades. Their inferiority in comparison to the greater economy has not hindered nature and environmental protection associations from gaining considerable influence in an individual sector such as forestry.

- **Professional Leadership and Experts**

The great difficulties in recruiting members also create unfavorable conditions for unification of interests as well as the association's internal obligation capacity to restrict itself to established positions. Traditional environmental associations, such as the German League for Nature Conservation and Environmental Protection or Friends of the Earth Germany, which have already been supporting certain nature and environmental protection interests for many decades, can depend upon their members' deeply rooted loyalty. They have organized themselves into federal association with suborganizations at state, district and municipal levels, incorporating those bodies usually found in associations such as a plenary assembly and a board of directors. Their decision-making processes are neither highly flexible nor particularly open to innovation.

The direction and integration of many environmental associations are in the hands of a charismatic leading executive. This person founds an association and keeps its members together by force of his or her personal charisma. On the long term, however, such integrative forces do not guarantee survival. The limited integrative decision-making structures based on the classic model of an association are thus supplemented or replaced in some associations by decision-making processes which are geared towards management processes of business enterprises. The association thereby improves its internal capacity to find common goals and act on them. There are also nature protection associations which are dedicated to the ideals of grassroots democracy. Fast decision making and the growth of the association can cause great difficulty. Generally, in a pluralistic and competitive system, associations have the greatest chance of survival, if they aim at professional, internal decision-making structures, such as those recommended by modern business management. The more significant an individual nature protection association becomes in terms of its diverse tasks and membership number, the more impact its internal integration deficits will have.

The growing influence of experts on the activities of associations also complies with the trend of professionalism. Expert competency is extraordinarily important in the growing field of nature and environmental protection policy, in particular. Small nature protection associations may not have enough resources to employ a sufficient number of qualified experts. However, the larger associations employ a growing number of full-time

experts. The teams of staff in nature protection associations are already currently approaching the size of those in forestry associations.

- **Lobbying for Legislation and Enforcement**

Nature and environmental protection associations dedicate their major efforts towards introducing ambitious environmental protection goals into political debates and increasingly into legislation. Lobbying by environmental associations is directed mainly towards mobilizing the mass media and the general public, since they see this as one of their few instruments of power in the face of their lacking economic clout. People often use nature and environmental protection associations as a source of information, and these do enjoy high credibility. For instance, a survey by the Institute for Demoscopy in Allensbach in the year 1990 shows that over 40% of the population trusts the leading nature and environmental protection associations. Greenpeace even rates far above this at almost 80%.

The media campaigns cannot fully elaborate the complex key issues of nature and environmental protection, instead they may generally tend towards symbolical simplification or overstatement. This complicates their practical dealings with the business associations of landowners. Nature and environmental protection associations have discovered the particularly high degree of attention in connection with the forest, and have increasingly dedicated themselves to forestry issues for strategic reasons, in addition (Krott & Tutka 1994).

The position of nature and environmental protection associations has been weakened by the dissipation of their arguments. The individual associations make somewhat contradictory demands. All of the associations legitimize themselves in the name of nature's basic needs, yet their diversity results in less legitimization than would a unified position, which cannot be achieved due to the competition amongst the associations themselves.

The impact of lobbying mainly depend upon early involvement in drawing up bills of legislation and other regulations for the authorities. Chosen nature and environmental protection groups have the express right to participate according to the Federal Nature Protection Law (§ 29). However, this participation is limited to stipulations directly effecting the Nature Protection Law. Environmental protection groups can only participate in the debate on legal stipulations in the forest sector by way of informal struggles, whereby these efforts do not often meet with success.

Regarding the enforcement of legislation, nature and environmental protection associations complain about grave deficits which they hope to alleviate by helping to transform it into public policy. The effort to overcome deficits in enforcement through stronger participation of nature protection associations in decision making meets with general disapproval, since this would directly affect the activities of public administration. Despite this, nature and environmental protection associations have been granted the right of participation regarding several substantial issues in Germany.

Classic enforcement of nature protection only involves the expert officials and those concerned. When a given person wants to realize certain intentions, the authorities have to ensure that the consequences on nature are strictly within the limits of the legally standardized framework. Although the authorities reserve the right to make decisions, nature and environmental protection associations have nevertheless secured extensive rights to information in the course of administrative procedural practice. They participate in the planning stage, in particular. In addition, state legislation provides for environmental advisory boards or environmental commissioners as consulting agents for the nature protection authorities. This gives the representatives of the associations the chance to participate directly by providing expert information. The associations can contribute their entire know-how in the search for solutions. This increases the chance of finding practical and innovative solutions which serve the rightful interests of those concerned as well as taking the burden off nature. An open exchange of information can contribute towards raising awareness and finding practical solutions, if it has been made completely clear that the bills for legislation passed in parliament and the authorities' autonomous decision-making function are not subject to agreement by the environmental associations. Access to information on law enforcement procedures gives the associations insight into the decision-making process, promotes trust between the associations and government, as well as making use of the associations' innovative potential of know-how, in as far as the open exchange of information takes place without misuse in public.

The associations have far less chance of obtaining the right of codetermination concerning administrative procedural practice. The state will not voluntarily allow pluralistic associations to participate in its autonomous decision making. The associations have to struggle for the right of codetermination. They have been doing so informally for a long time with varying degrees of success. The protest potential, which nature and environmental protection association to combat individual environmentally destructive developments, *de facto* informally intervenes in the decision-

making power of the law enforcement authorities. In an extreme case, such as a conflict regarding an atomic energy plant, the administrative procedural practice completely loses all meaning, and the decision is taken over by politicians who negotiate with the nature and environmental protection associations. In practical law enforcement, administration already estimates the level of protest expected from environmental associations before and during the procedure. Thus the associations informally have a certain influence on executive decisions. Public administration considers this limiting to its formal constitutional function and its informal autonomy. It accepts such limitations in the course of corporative cooperation, however not with regard to nature and environmental protection associations which pluralistically avail themselves of the freedom to protest and form a countervailing power. Pluralistic associations are not granted any further participation in state law enforcement, in addition to the above-mentioned comprehensive right of information, unless they achieve it by force. However it can be anticipated that they will lack the instruments of power required to do so.

The instrument of class action, which nature protection associations put to use, can be similarly evaluated. It enables the associations to have executive decisions examined in court. However, since it is often impossible to find a subjectively involved plaintiff for public nature protection interests in the face of conflicts, and mother nature alone cannot file suit, regulation cannot take place through legal proceedings. Only by means of "altruistic" class action, can the association insist that the enforcement of protective standards is examined in court. Class action enables administration to be pressured into closely adhering to legal nature protection standards (Bizer et al. 1990). Despite the positive impact on nature protection, public administration is principally opposed to this instrument. It limits the informal autonomy of the executive decision, since the courts take responsibility for the decision in part, even if it only be in subsequent reviews. Class action presents the pluralistic nature protection associations with an important instrument to give their arguments informal preventative clout, especially in the form of a potential threat. In a pluralistic system, the state defends its autonomy and does not (voluntarily) grant nature protection associations the potential to make such a threat. This tense relationship explains the conflict which has accompanied the legal introduction of class action in Germany for decades. Whereas the opponents of class action have been able to prevail on the federal level, some of the individual states have at least introduced a weaker form of the instrument of class action. The Nature Protection Law of Lower Saxony dated 1-11-1993 introduced a comprehensive basis on which to file

suit for the first time. This was a great challenge to the associations' activities, which overtaxed the nature protection associations on the short term. On the medium term, however, class action should encourage more professionalism in the associations' work. It shifts a portion of administration's decision making to the courts and indirectly increases the demands on legislation.

- **Advisory and Extension Services for Individuals or Projects**

Nature and environmental protection associations have always recognized the great significance of environmentally compatible behavior on a local level. An individual can lobby politicians to behave accordingly in a democratic system by means of his personal value system and his political decisions. The consequences of people's daily routines essentially determine the burden on the environment, and the general public is becoming more and more highly valued as a partner in enforcing nature and environmental protection laws. The challenge to associations to help with all these tasks has increased significantly with the development of nature and environmental protection.

These associations have already been conducting public awareness campaigns for their members and concerned citizens with regard to ecological dangers and environmentally compatible behavior for a long time. They dedicate a significant part of their resources towards public awareness campaigns for nature protection issues. The changing values, which have given nature and environmental protection top priority over the past decade, are confirmation of the huge success of public awareness campaigns, to which the associations' activities have made a great contribution.

The actual implementation of these nature and environmental protection goals into our daily routines has to follow the new orientation of values. Individual nature and environmental protection associations are traditionally also active in certain tasks. Bird Life International and the World Wide Fund for Nature (WWF) supervise numerous local nature protection projects, for instance. This has led to extensive cooperation with the forest sector (Brendle 1999). However, the efforts made to encourage and supervise the concrete projects of individual citizens may soon even reach the capacity limits of the large nature and environmental protection associations.

Limited resources markedly constrain these associations in their third task, namely people's growing expectations for modern nature and environmental protection policies. As an important partner, the public is expected to support

the enforcement of nature and environmental protection laws. To fulfill this new role, the general public needs the help of experts. Only with sufficient expertise and practical know-how, can the people productively cooperate with administration. Without the corresponding know-how, conflicts threaten to break out in the grassroots movements due to the existing authoritative state tradition which burdens the principle as such and hinders public participation from becoming the norm in administrative enforcement, in particular. These associations are actually far better able to build up a trusting relationship with the general public than the state, and this is only made possible through advisory services and awareness campaigns. The shortage of resources, which the non-governmental organizations (NGOs) cannot overcome without help, hinders them from satisfactorily making use of this opportunity.

5.3. Hunting Associations

The hunting associations play a central role in hunting policy and thus in the important issue concerning the coordination of forestry and hunting. The above-mentioned general factors define their margin for action, however their interests, membership organization and cooperation with the hunting authorities and the competition are distinguished by certain features. As they are elaborated here, these aspects only apply to Germany. However, they are suitable for illustrating the variable activities of associations.

The hunting associations have formulated targets involving a marked integration of nature protection (German Hunting Association 1999). Based upon the close connection between hunting, the wild game and its environment, they have set up objectives for the purpose of standardizing the needs of wild game, as well as defining the means of maintaining the hunting territory. By elaborating these integrated goals, the German Hunting Association has managed to programmatically infiltrate the domains of interest of nature protection associations. The German Hunting Association has been formally recognized as a nature protection association with privileged access to legislation (according to §29 of the Federal Nature Protection Law). It claims full competency in nature protection issues related to wild game and hunting, and thus competes with the actual nature and environmental protection associations. These associations agree with the German Hunting Association regarding several biotope management goals, however hunting is not seen as a positive cultural or emotional activity, because of the killing of animals it entails. The German Hunting Association

hopes to curb environmentalists' criticism by promoting its own competence in nature protection.

The German Hunting Association has been highly successful in organizing its members. With its 289,000 members as of 1998, it has achieved a membership rate comprising 85% of all those persons holding a hunting permit. This increases its legitimacy in voicing the interests of hunters, as well as its financial power. In addition, the Hunting Association can count on the considerable political influence potential of its individual members, since hunting is traditionally an activity pursued by the elite in Germany, albeit currently to a lessening degree.

The German Hunting Association has developed a mode of close cooperation with the hunting authorities, which has the features of a corporate relationship. It sends its representatives to the hunting advisory committees, which play a major role in hunting administration, and it is a leading force in many areas of hunting self-administration, covering everything from game-keeping cooperatives to the common organization of hunts and training of hunters. The German Hunting Association has also been given the legal mandate to enforce the rules of conduct for hunting, as well as the browsing rights (Federal Game Law dated 1976, revised 1990). It thus has a significant political platform to define the objectives of hunting.

As already can be perceived by its high rate of membership, the German Hunting Association takes on a predominant role in representing the interests of hunters, such as is characteristic under corporate terms. Since 1988, the newly founded "Ecological Hunting Organization" has been challenging the solitary claim to representation made by the German Hunting Association. It has signed a contract for cooperation with the "Working Group for Natural Hunting." Both of these new associations define themselves as fully competent hunting associations, which are more geared towards hunting than the "generally recognized goals of protecting nature and the environment, as well as flora and fauna." In addition, the Ecological Hunting Association wants to "make a contribution towards solving conflicts among agriculture, forestry and hunting." The driving forces of the new hunting associations are reflected in these objectives. Representatives of forestry are attempting to achieve a mode of hunting which is more compatible with their interests of maintaining the forests by means of newly defining hunting and its political implementation in the form of an association. This also involves seeking cooperation with nature and environmental protection associations (Bode & Emmert 1998).

The strategy of new associations opposing the predominant associations is the toughest form of competition, since it basically challenges the legitimacy of the predominant associations. The work of the new associations is correspondingly characterized by conflicts and risks. These new associations have introduced a pluralistic element into the established circle of hunting associations, however they have not yet been able to alter the primarily corporate collaboration of the German Hunting Association with the state.

5.4. Political Parties

Whereas the associations just want to influence forest policy, the political parties take on political responsibility by appointing their representatives to political offices.

Political parties are organizations, which have evolved on a voluntary basis by independently accumulating votes in competition with other parties, and whose goal is to have their party representatives elected to political offices.

The parties justify their main goal of participation in government by representing certain positions of interest. They make a direct effort to attach weight to these interests in government. The parties therefore also determine the process of forest policy making. On the one hand, their influence is based on their politicians, whose significance will be elaborated along with that of administration in the following chapter. On the other hand, the parties channel interests in the same manner that associations channel those of their members to lobby their positions in policy making. From the highly universal party interests and their special instruments of political organization follows their relationship to forest policy, which varies greatly from that of the associations.

Basic social conflicts gave rise to the Western European parties (Lösche 1994), of which three directly point towards important factors in forest policy. The conservative parties formed themselves as the representatives of agricultural (and forestry) interests to oppose the liberals as the party representing industrial interests. The contrasting forces of labor and capital, which are also significant in forestry, were constitutive for the social-democratic parties. Lately, Green parties have formed as a result of the

conflict between environment as opposed to business and consuming, and these parties are programmatically involved in forest issues (Müller-Rommel 1993).

However, a party's specific orientation is highly influenced by its goal of achieving a majority in elections, in addition to its party program. According to democratic ideals, parties should commit themselves to the people's interests via elections. Only by following goals that correspond with their voters' expectations, can a party win an election and come into power as governing party. However, the ideal of the parties representing the voters' interests is does not satisfactorily reflect reality because of the following:

- 1) The presumably uniform interests represented by the majority do not exist. The diverse groups each have their own interests which cannot be united on the whole. The parties therefore try to bundle group interests, instead of genuinely representing individual positions, such as that of certain forestry interest groups. Electoral majorities cannot be won by means of limited special interests.
- 2) The parties want to achieve the required majority with a minimum of effort. Instead of optimally fulfilling the voters' expectations, they only meet them halfway in order to satisfy the majority. Minimum electoral benefits can thus be combined with the political interests for which the associations or other stakeholders are lobbying government. Concerning forest policy issues, the parties are under pressure to signalize their competency regarding forestry and the forest, without provoking conflicts with large influential industrial associations and forestry associations on the one hand, or environmental protection associations, on the other hand.
- 3) The competition for the majority forces the parties to take up a central position and compromise between the extreme interests of the voters, since any rapprochement to the extreme will result in losses on the other side, whether it be rightwing *versus* leftwing or environmental *versus* business interests. The party which most thoroughly covers the central positions has the best chance of winning a majority and building the government. As a result, all the parties' programs are becoming increasingly similar, and many interest groups remain without representation (Downs 1957). In a survey by the German Forest Owners Association during the electoral campaign of 1998, all parties signalized the following objectives regarding the forest sector: promotion of private

sustainable forest management; support of cooperation between environmentalists and property owners (contractual nature protection); the further decrease of air pollutants; and the promotion of wood as an environmentally friendly natural resource. With the exception of the Green Party, the other parties unanimously disapproved of payments made in settlement of claims regarding forest damage caused by emissions. There were also differences concerning the new regulation for compensating the protection of private property in the face of utilization limits. Although the great majority of the Christian Democratic Union, the Liberal Democratic Party and the Coalition 90/Greens were in favor of it, around half of the Social Democratic Party of Germany opposed it.

The parties attempt to deal with the elaborated constraints of achieving the majority and coming into power, and the necessity of minimally responding to the voters, by means of election tactics. They avoid making all too specific promises and detailed statements in their programs. These would frighten off certain groups of voters as well as obligating them to adhere to certain objectives, making it more difficult to respond to interests in government in a flexible manner and minimize conflicts. In as far as a party can focus on certain individuals, it can also avoid making binding statements and can address large electorates without bringing up specific details for discussion.

Such election tactics are morally condemned. However, they are the result of being forced to achieve a majority. This would explain why parties competing in democratic elections only deal with their voters' interests in the political decision-making process to a minor degree. The associations are better able to realize this task. Yet the fact that parties amass power through elections makes a change of government possible without violent conflicts. A peaceful change of government is the feat of representative democracy by which it fundamentally differs from all forms of dictatorship.

The aim of a party to achieve power has an indirect influence on the political system. Four basic effects are to be named here (Gerlich 1983; Lösche 1994):

- **Creation of Legitimization**

Party activities result in trust and support for political institutions. A ruling government appears legitimate, because it has been formed by the majority parties. The parties conduct educational programs, public relations work and

election publicity to inform the electorate of the feats achieved by the political system.

The parties organize their election campaigns using a great deal of resources and manpower. As such, each election campaign establishes political legitimization, no matter which party wins. The election turnout is an expression of the voters' support for the political system. The very high election turnout in Germany at 70-80% confirms the basic acceptance of the political system. Even though the parties are often criticized, the legitimization of governments through majority election is considered widely accepted.

- **Competition of Political Objectives**

Parliamentary decision making is based upon weighing a variety of political objectives with the goal of finding the best concept. The parties make various demands. They draw up political programs, signalize alternatives in election campaigns, and take over the role of government or that of the opposition, which critically follows political decisions.

The parties have a direct influence on political decisions. They actively perform this task in Germany, however they are often afraid of making clear political decisions in order not to jeopardize their chance of election. A new orientation of goals in the political system can therefore not take place, so that the current state of affairs remains unchanged. The lacking will to make decisions does not promote forestry interests, however it also means that those concerned with forestry can live with any government, no matter what its party constellation may be.

- **Recruiting the Political Elite**

Parties nominate candidates for the elections. This internal nomination constitutes an essential pre-selection of those candidates who may be elected by the people and can be entrusted with a political office. The parties thus make a deciding contribution towards forming and selecting the political elite.

Party influence on the selection of candidates for important positions in the state can lead to the abuse of the state for party purposes. The patronage of parties in many state and public institutions, which is also practiced in Germany particularly when leading positions are to be filled, makes competing even more difficult for the most suitable candidates. Thus party

influence hinders the implementation of expert performance criteria in all state sectors including forestry.

- **Representation of the People's Interests**

Parties promise to involve the people in political decision making. They consider themselves bridges between society and state, as well as being an important element of democracy. In practice, parties in Germany only fulfill this task to a modest degree. The party members' pragmatic attitude towards gaining a personal advantage from membership plays an essential role. Active involvement in political work is only sought to a minor degree. The low level of internal party democracy corresponds with the members' passivity. The party elite outlines the party work. They value their organizational freedom and hardly encourage their members to get involved. The party leadership plays much closer attention to airing its arguments in the media. Whereas public relations work via mass media has greatly increased, the development of internal party democracy has been limited to halfhearted attempts, as exemplified by rather unsuccessful pre-elections or party referendums.

The above brief remarks on political parties served to indicate their fundamental importance, as well as their aloofness to forest policy. The parties play the leading role in the legitimization of all forest policy decisions and the recruitment of forest policy decision-makers. The prevailing power struggle in parties forces the specific issues, which are the object of forest policy conflicts, into the background. The aloofness they have to forest issues in contrast with their direct affinity to power-related issues explains why traditional forest policy research has not yet dealt with this topic. However these are not sufficient reasons for the lacking analysis of empirical forest policy research concerning the influence of parties on forest policy.

5.5. Further Forest Policy Research

In complete contrast to the omnipresence of the associations in forest policy making, the associations are rarely the subject of forest policy research. There are only a few publications, in addition to the cited studies by Glück (1976) and Mann (1998), which focus on associations. Worthy of mention, among others, are those on forestry associations by Weber (1993), and descriptive elaborations by Mantau (1996), Nembach (1993) and Weinberg (1989); by Syrer (1987) on hunting associations; and Leonhard (1986) on

nature and environmental protection associations in Germany; Schmidhauser & Zimmermann (1993) in Switzerland; and Krott & Traxler (1993) in Austria. The topic of forest associations, which was analyzed in a comprehensive study by Glück (1976) for the first time, has apparently not yet been followed up by forest policy research. Therefore scholarly findings are lacking in research on forestry associations with regard to such areas as the commitment of members, internal decision-making processes, financial and legitimizing resources, lobbying, alliance strategies, relations with government, international relations, and future development alternatives of forest associations.

The reticence of forest policy research is all the more remarkable, because associations generally count amongst the most important research topics in political science, and from 1991 to 1995 around 400 scholarly works were published in Germany on this subject (Sebaldt 1997). There are a great number of political science findings with an empirical reference to Germany and a global theoretical reference (Alemann 1989), which can also be of help in understanding and analyzing forestry associations. The great informative value of the potentially applicable political theories of associations only allows the conclusion that forest policy studies are ignoring very fertile research grounds and, consequently, forestry associations are not receiving the scholarly decision-making help that would be possible in this field.

The low priority given to the associations as a topic of forest policy research is also reflected in the English-language literature in Europe (Metz 1986; Korten et al. 1992; Christophersen & Weber 2002).

CHAPTER 6

GOVERNMENT AND ADMINISTRATION

The hopes and expectations of both those who utilize the forest and those who protect it are put forward to the state, in particular, as the central political force. The modern state's comprehensive claim to promoting public welfare is also a determining factor in forest policy. In practice, it is implemented by government as well as forest administration and other expert committees which take on public tasks related to forests.

6.1. The Role of the State in Forestry

6.1.1. Tasks and Action Potential in the Modern State

The basic political concept involves a standard higher instance which presides over society and the business sector and is responsible for making binding decisions in order to define and implement common welfare (Grimm 1994). This requires that a state of peace is ensured in the nation, i.e. the various interest groups in the country must forgo the use of force. This higher purpose was to be realized by the state protecting the individual rights of life, liberty and private ownership in the initial phase of the concept of a modern state (Thomas Hobbes). A strong "absolutistic" state was able to serve this purpose. In contrast, liberal concepts bound by the rule of law emphasized the necessity of limiting the power of the state through the principle of the rule of law in order to grant each individual person freedom from the influence of the state on his life and finances. Through Max Weber, the "institutional preconditions for true liberty" became an important purpose of state. In the 19th century it became clear that a person's freedom of liberty only served him in as far as the economic and social preconditions made it possible for him to use his liberties. The "social preconditions for true liberty" supplemented the purpose of state. In the middle of the 20th century, the ecological crisis brought on a new threat to life and liberty. The political discussion resulted in a broadening of the reason of state (*raison d'état*) to include "environmental protection" (Murswieck 1995).

The programmatic implementation of the very generally formulated purposes of state involves setting individual public tasks:

➤ Internal and External Security

Trade and industry require a stable political framework. To this purpose, the state secures their political-administrative basis, such as private property, production means and working contracts. Free enterprise, in general, and forestry in particular, would not have been able to develop historically without the framework of a state.

➤ Provision of Corresponding Institutions and Services

The state provides wide-scoped infrastructural services for business enterprises and private individuals. Material infrastructures, such as traffic systems, or water supply and sewage systems, are public tasks, as is the creation of an infrastructure of personnel with trained and educated individuals.

➤ Social Services

Providing healthcare and social security counts among the tasks which the modern state is increasingly called upon to fulfill.

➤ Economic Development

The state becomes directly involved in trade and industry to promote growth and economic development. The public tasks pertaining to the forest sector are stipulated in the Federal Forest Act.

➤ Environmental Protection

Environmental destruction is a clear manifestation of market failure. The state also perceives this to be a public task which increasingly requires action. In 1994, environmental protection was incorporated into the basic constitutional law in Germany (Article 20a: "In responsibility for the future generations, the state also protects the basic elements of life within the framework of the constitution according to the legislation and legal regulations as enforced by law and order.") The protection of the forest is traditionally a major task of the state, which pertains to forestry.

The public tasks that have been individually standardized in the political process and assumed by the state are realized by public administration which can avail itself of considerable instruments of power. **The modern state has secured a monopoly of power; it defends the national territory and administers the fiscal monopoly (Matzner 1982).** The central power of public administration was established after an historical struggle for control of the monopoly to use physical force (Elias 1978). **Through its ministry of interior affairs and the police executive, only the state is permitted to use physical force in dealing with its population as a final resort of realizing its political duties.** Other social groups are not permitted to use any violent means, no matter how seriously they are threatened. For the purpose of defending the national territory, a military force is established which far surpasses all other social groups in terms of its potential to use violent means. The establishment of internal and external monopolies of power is also immediately connected to levying taxes. Since public administration provides few goods and services, it has to rely on those provided by free enterprise and the rest of society. The establishment of a power monopoly makes it possible for public administration to levy taxes. **The mandatory tax system was established by the central power of state in the course of a long struggle.** The state can presently also use means of force against tax evaders. The reference to such resources indicates that the state not only constitutes a legitimate and legal concept, but it has also grown to be an entity with an enormous power potential of which it may avail itself through suitable legislation and enforcement. In addition, the state is also guided by its own informal interests, particularly maintaining its power and developing its resources.

6.1.2. Politicians and Administration

President, parliament and government are the political forces of the Federal Republic of Germany. **The government is the most important institution in the actual shaping of politics.** The German president mainly takes on representative tasks, whereas the parliament is closely linked to government through the political parties.

The principle of dividing the state authority into legislative power, executive power and judiciary power should enable mutual observation and an equilibrium of power to be established. In basic constitutional law, the principle of division of power has been standardized in Article 20, §2, according to which the power of state "is practiced by the people in elections and polls, as well as by certain legislative and executive bodies and the

courts of law." In detail, the division of power results from task distribution among the individual political bodies, as well as from regulating legislation and enforcement stipulated in the basic law (Maunz & Zippelius 1994, p. 90; Böhret et al. 1998, p. 83). The framework formally standardized in the constitution stipulates the division of power among parliament (legislative), government and ministries (executive), as well as the institutions of jurisdiction (judiciary). The informal decision-making processes gives more weight to the formal framework of government, as well as giving it considerable influence on parliament and jurisdiction, in part.

In the parliamentary system of government in the Federal Republic of Germany, the federal parliament forms the central political institution (likewise the state parliaments in the various states). The parliament claims outstanding democratic legitimization based upon its direct election by the people (Rudzio 1996). It should ensure that the people can influence politics, as well as taking on the following four tasks:

- **Articulatory Function:** The people's current political opinions are to be made public in parliament.
- **Elective Function:** The people appoint all the important political decision-makers in the process parliamentary elections.
- **Observational Function:** The people can observe government's work in parliament.
- **Legislative Function:** Only the lower house of parliament elected by the people can pass legislation (in cooperation with the upper house of parliament).

The formal parliamentary legitimization of the democratic system in Germany, standardized in the basic law code, is concerned with fulfilling these tasks. The political parties brought about a substantial change in the parliamentary system, in particular the separation of executive and legislative powers. Everyday politics involves the parliamentary majority and government in democratic competition with the parliamentary opposition. This political practice is only partially reflected in formal (legal) processes. Many of the most essential decision-making processes take place informally.

The parliament does not implement the legitimized decisions it has made by itself. This task is taken over by **government**. Due to the fundamental

character of parliamentary standards, which are generalized as a result in many areas, **government has two types of tasks:**

- **Regulatory Function: The government is to conduct consistent politics in the scope of the legal and financial framework.**
- Executive Function: Government implements parliament's decisions by means of supplementary legal rulings, as well as organizational, personnel and practical measures.

Government is at the center of political organization in public. Political decisions and programs are personified in the media by the person of the chancellor.

Mainly through drafting bills in parliament does government shape politics. It formulates its political programs and gives them a binding character by passing these bills in parliament. With the help of party majorities, government has considerable influence on the decisions in the upper and lower houses. Government decisions are therefore predetermined by the executive committees of the political parties. In a coalition government, discussions and informal negotiations are conducted between the parties forming the government.

Despite the strong position held by the political parties, government is not the informal executive organ of the party's internal will. On account of his position, the chancellor has considerable formally secured decision-making power (the competency for making guidelines, choosing personnel and organizing the ministries), which he can use to counter the party's influence.

The ministers also avail themselves of four main instruments of power in order to defend their own positions (Benzner 1989, p. 91ff.). These are (1) cabinet member with a portfolio and voting right in government politics; (2) head of department with sole executive competency in the ministry; (3) party member with an established mandate in the executive committee of his own party; and (4) member of parliament with all the influence of this function. The relationship and equilibrium among these four functions results in considerable political influence for the office of minister.

Government maintains close connection with its ministries through the ministers. Regarding decisions in their fields of competency, the ministers are only bound by law according to the "principle of their department," rather than by any orders made by the chancellor. **In government the**

ministers informally tend to represent the goals of their ministry. The ministries also prepare the negotiation papers for their own ministers. Negotiation among the various ministries takes place on the highest level in the form of talks among officials where the ministers only participate as a focal point. The positions of the ministers and government are thus determined to a considerable degree by the work done in the ministries.

The combined decisions made by the "politicians" (government and ministers, representatives of the political parties and the parliament) and the decisions made by "administration" (officials of the federal chancellery and the ministries) culminate in the decisions made by the "state." Both sides can avail themselves of special instruments of power (Peters 1995).

- **The Political Institutions' Instruments of Power**

- Legitimacy:

Only politicians can legitimize political decisions. The constitution only gives parliament the right of legislation, whereas the ministers have decision-making competency in their own departments. The politicians also confer the task of forest policy making to administration.

- The People's Mandate:

The politicians can refer to the mandate which they have been given by the people in the process of their election. Despite all the deficiencies of the electoral system, there is no other decision-making body which has directly been given the democratic mandate to shape politics. The politicians can considerably strengthen this mandate by mobilizing the public and the mass media for themselves to achieve more power in the face of administration. This option is only of significance for politicians in forest administration in the rare cases in which forest policy conflicts attract the attention of political decision-makers. Such exceptions are constituted by forest die-back, individual conflicts pertaining to forest conservation in the case of large building projects, or conflicts involving local politicians which are carried out in the state parliaments.

- **Financial Resources:**

The administration bodies require the financial means to maintain their institutions and implement their measures. The political institutions attempt to influence the allocation of financial resources. The annually established

budget law gives the politicians in government, parties and parliament an opportunity to influence administration. As a norm, forest administration budgets are rarely the subject of conflict, however growing demand for subsidies considerably increases dependency on political decision-making institutions.

➤ **Allocation of Competency and Personnel:**

In addition to financial resources, all administration bodies strive towards obtaining competencies and personnel resources. Here politicians can also find ways of gaining influence in decision making vis-à-vis administration. For instance, the chancellor allocates the individual competencies to the ministries in the framework of the legally anchored federal competency. As demonstrated by the struggle to form the ministries in the course of building government, the organization of tasks in special departments does not take place according to technical criteria alone. The political representatives also secure their spheres of political influence by creating ministries. The allocation of competencies enables politicians to acquire allies in administration.

The division of competencies and personnel decisions are a minister's most important means of winning influence in own sector. The instrument of the "political official" formally provides the opportunity to practice flexible personnel policy geared towards political objectives at the top level of administration (Benzner 1989, p. 101). The political official has to fulfill his office in "continuous agreement with the basic political views and objectives of the government." If this precondition is not fulfilled, he or she can immediately be sent into temporary retirement. When the political leadership of a department changes, this regulation applies to numerous officials, in particular the undersecretary of state, who administers a department as the highest official, as well as the heads of department. The heads of the sections and the officials in charge on the next level are formally apolitical and are thus protected from such political measures. If these positions are already fulfilled with non-privileged officials, the minister may not dismiss those officials. However, important functions may more or less informally "wander over" to loyal party officials during the redistribution of tasks among officials. A new minister will restructure his "team" in such a manner to establish officials supporting his political objectives in leading positions.

- **Administration's Instruments of Power**

- **Expertise and Information:**

Each ministry has a broad scope of expertise and current data available through its expert officials and printed sources. Administration's expertise is far superior to that of the political institutions in terms of volume and current status. This profound expertise is a good reason for widely entrusting administration with the shaping of political measures (Zippelius 1994). Politicians are usually not able to come up with functioning solutions on their own. The parties themselves also lack the necessary detailed information to do so. Their administration bodies thus have a substantial role in drafting respective bills. The highly comprehensive expertise of forest administration regarding all forest issues is one of its central powers of influence.

- **Administrative Ideology:**

Administration bodies develop basic programmatic concepts for their corresponding task fields. Administrative ideology defines the central problems which are to be solved. It also designates the direction in which the measures should take effect. With the help of their ideology, administration bodies are able to act quickly and uniformly throughout a country. The lower levels of bureaucracy do not need orders from above to uniformly adopt their measures according to special administration yet independent of the influence of local politicians. Forest administration traditionally cultivates a characteristic, highly specific, administrative ideology, which enables it to act uniformly and quickly, from basic training in the sections to the internal team spirit.

- **Executive Decisions:**

Laws can only take effect if they are applied to a specific political conflict. Such application requires decisions which can only be made by administration. Administration bodies make a great number of such politically effective decisions on a daily basis all over Germany. This decision-making activity gives administration considerable political influence which is directly applied by forest administration with its strong local presence.

➤ Alliances:

The various administration bodies seek political allies in the associations, as well as other sections of administration, the sciences, the general public and mass media. The strategic alliances of forest administration are more strongly geared towards the forest sector than the environmental protection sector. A particular strength of public forest administration lies in its local alliances with stakeholders (Krott & Sohns 1999, cf. illus. 3).

➤ Aloofness to Politics

Administration bodies try to emphasize their aloofness to politics. They stress the purely legal and technical reasons for their decisions. Pointing out their strict objectivity, administration bodies seek to reject attempts to politically influence them. They do not have to face elections like politicians do. Forest administration's aloofness to politics also gives it more decision-making freedom. It can make unpopular decisions far more easily than politicians can. On account of its aloofness to politics, forest administration has sufficient leeway to make informal decisions which are nonetheless clearly political.

➤ Permanence

In comparison to politicians, special administration bodies and their executive officers are predominantly permanently employed. Below the level of the undersecretary of state, section heads and officials in charge remain in their positions for many years, whereas great numbers of politicians rotate after each election. The expert administrators have far a greater chance of slowly but surely implementing long-term political solutions. Unpopular proposals made by political institutions are postponed by administration until the politician, who introduced the reform, is no longer in his influential position.

6.2. State Forest Administration

6.2.1. Administration as an Executive Body

Administration takes on the executive tasks in state, i.e. it implements political programs in the form of concrete measures (Becker 1989; Peters 1995).

Administration is that public institution which makes decisions concerning specific problems on the basis of general legal standards, resolving those problems by implementing special measures.

In practise, administration has developed a large number of diverse institutions which span everything in the forest sector from special forestry offices to the general forest administration. Yet all institutions, which implement political decisions in the sense of the above definition, have common aspects that can be exemplified in a forest administration model (cf. illus. Forest Administration Model).

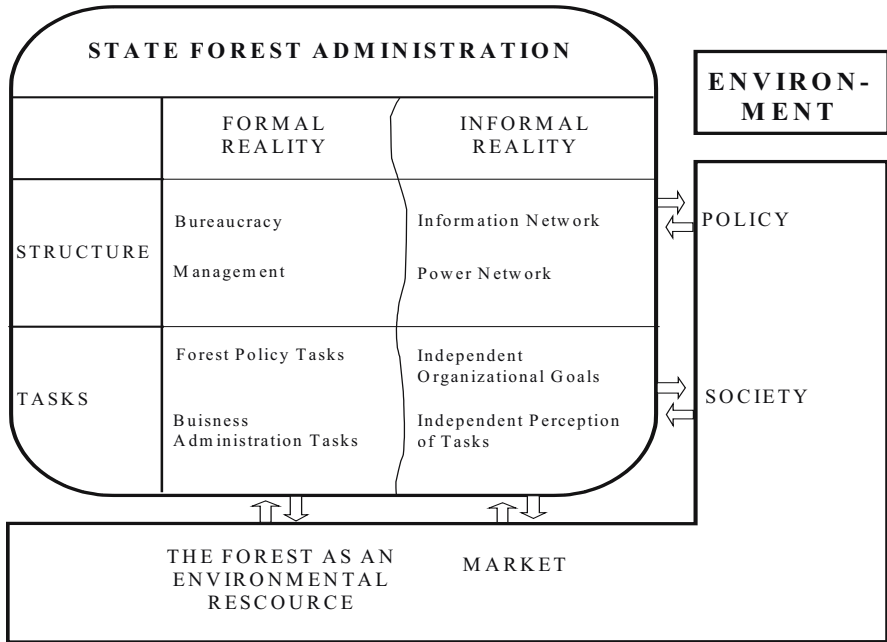


Illustration 3. Model of Forestry Administration

The administrative machinery is distinguished by the two dimensions of "tasks" and "structure." The tasks in the form of legal stipulations define the

framework in which forest administration is to take action, as well as its orientation. Public forest administration in Germany manages the business administration of state forests and also takes on the tasks of protecting their sovereignty, advisory and extension services, financial promotion and organization for all the forests in the country. To conduct these tasks, forest administration has built up a distinct structure which has local, district, provincial and state offices involving expert personnel and certain procedural routines. Based on general public administration, the structure follows the theory of bureaucracy, however it has been supplemented with several elements of private business management.

To depict forest administration with regard to its entire range of practice, as well as its constitutional ideal, it is helpful to expand the model to include informal reality (Krott 1990). Formally, forest administration acts in compliance with the constitutional mandate. The public self-definition of forest administration is based upon this mandate, as well as the organizational structure established to fulfill it. In addition to this, however, some activities are conducted in every administration body, which neither follow the self-defined norms nor any legal standards. In the margin beyond formality, employees exchange information, evaluate objectives according to their personal concepts and negotiate agreements. These informal activities usually do not go against the law – they are not forbidden – however they would not normally be mentioned in an official description. Administration portrays itself as formally bound, whereas informally officials and their clients know they can avail themselves of many informal means which are sure to be of use, because they do not exist in the formal sense.

Since executive work affects the protection and utilization of a forest, the general context is also relevant, in addition to administration body, when covering administrative practice. In a densely forested region with high timber prices, forestry management will be entirely different than in a sparsely forested region with a lack of demand for timber. Of no lesser influence are the active associations and politicians. The general context includes the forest as an ecological resource, as well as the market (business sector), society and politics. Forest administration helps to shape the context, however it also requires support from these same circles. In the description of administration as an executive body, formal and informal structures and tasks are at the center of focus. Nevertheless, reference to the general context is indispensable for evaluating the internal structures, since pertinent issues have to be resolved in the framework of the existing forest sector.

6.2.2. Theory of Bureaucracy

The theory of bureaucracy is a deciding factor in forest administration. At the beginning of the 20th century, the sociologist Max Weber (1972, p. 551) established an ideal model of bureaucratic organization, better suited for the strictly rational, on-site implementation of solutions provided by political programs than were other forms of administration (Mayntz 1985). The superior administrative rationality of purpose and means lies in its capacity to fulfill its political mandate using the respectively stipulated means without being diverted by other political influences. Bureaucratic organization is based on a few major aspects:

- **Predetermined Hierarchy of Authority**

In administration there is a set organizational system of superiority and subordination. At the head of the public forest administration are the minister and his ministry, where a leading official has been named head of public forest administration. As a rule, below him are the forest officials in the regional districts and below them, the local forest administration offices. The hierarchy of authority means that the higher office in line assumes the tasks of supervision and control. Decisions made by the higher office are binding for the lower offices, and the higher office can scrutinize all decisions made. The higher office settles conflicts between subordinate offices. This should ensure that the objectives set by the top officials are implemented by all positions down through the forest administration offices.

- **Fixed Competencies**

The tasks and the means to complete them have been standardized for all offices in forest administration. The offices cannot independently choose which tasks they take on; their fields of responsibility are based on the types of tasks according to binding guidelines. The regulation of competencies divides the field of tasks into groups of tasks which optimally complement and promote each other. The completion of each single task should be provided for, and double work should be avoided. Division of work according to competency is based on four main principles (Peters 1995):

- According to the **territorial principle**, an administrative office is responsible for a certain region. It should take care of all the problems occurring there. As a result, administration needs to achieve a balance between the different objectives in its area of competency in order to work towards an agreed solution. The territorial principle is of great

significance in Germany's forest administration, and its organization follows that of general administration in federal, state, district and local administration. The major portion of forest administration tasks lies with the public forest administration. It has district forest administration offices and often also has regionally responsible local offices. The territorial principle should facilitate the complete administration of all forested areas, thereby hindering mutual impairment of the regional administration offices and regional division of work. The tasks of federal administration in the forest sector are very limited; the state administration bodies each follow their own independent orientation making full use of the principle of federalism. From an economic perspective, the territorial principle is accompanied by the constant effort to reduce costs by enlarging the area of administration. Between 1980 and 1995 the forestry office administration areas expanded from approximately 5000 hectares to 8500 hectares with a continuing tendency to increase. At the same time their number was reduced by up to 50% (Ripken 1991). The goal of the reform was to efficiently fulfill the tasks while allowing for a reduction of local presence.

- According to the **functional principle**, administration is divided into various functions which serve towards fulfilling the tasks. The line positions and the expert officials are significant in forest administration, as well as the areas of forest and legal expertise. The line positions are directly responsible for administrative enforcement. They make the decisions and are responsible for their (partially political) implementation. On the other hand, the expert staff deals with expert issues in preparation for the decision-making process. In order for them to better fulfill these tasks, they are relieved from the daily routine of the line positions. Forest administration has delegated the planning tasks to expert staff in the planning offices. The comprehensive know-how of the expert staff provides essential support for the line positions, although forest expert positions compete with other expert positions, such as environmental protection, which also deal with the forest. Due to their special goals and their basic scientific knowledge, forest experts are the source of innovative impulses for the line positions, which may be biased in their pragmatic assessment. Forest specialists dominate in the line positions of forest administration, not lawyers as usual in general administration. The organization of a specialized forest administration body with its own local and regional institutions poses an advantage for forest experts,

whereas integration into general administration involves entrusting line positions with forest competencies. Either these officials are lawyers, or they are mainly responsible for the fields of agriculture and environmental protection. In this manner the current saving measures are reducing the functional independence of forest administration with serious consequences on its capacity for action.

- The **principle of tasking** organizes administrative competencies according to the various tasks. The legal standardization of forest competencies is fundamentally significant to forest administration, as a whole. Forest competency lies chiefly with the states, and it is standardized by them in the state forest acts. The competencies for the extensive forest-related tasks are thus derived by the public forest administration bodies. According to the principle of tasking, the organization of the administration body is geared to the volume and type of tasks. In practice, the question arises as to which of the forest-related state functions can be optimally fulfilled by a centralized forest administration. From an organizational perspective, forest-related tasks can be included in general administration or organized as a special administration body. On a federal level, forest administration is a section of the ministry of agriculture. In the states, forest-related tasks are often linked to a state ministry of agriculture (and hunting), and sometimes lately with environmental protection, as well. Special forest administration offices dominate on the lower levels, whereby each state has its own forest administration in the form of regional offices, although not every state has set up a special funding office. In Lower Saxony, for instance, general administration is responsible for forest issues along with agricultural issues in the administrative regions; however the districts also act as local forest authorities, although they are only supported by forest advisory offices. In specialized forest administration an organizational choice needs to be made between integrated administration of forestry and forest policy tasks or dividing of these separate fields into specialized administrative offices. The optimum fulfillment of all public functions concerning the forest is traditionally the responsibility of an integrated administration body.

- The **clientele principle** is based upon the concept of setting up a special administration body to deal with the various needs of a certain group. Such a specialized administration body fully dedicates itself to the problems of its clientele and develops coordinated solutions, on the whole. From the clientele's perspective, agreement results in a considerable increase in efficiency, since it prevents splinter groups for

different competencies in special administration, which can only be coordinated with great difficulty. It also promotes cooperation between administration and those concerned. The clientele principle cannot formally be applied to forest administration, since the goal of multiple forest utilization serves different groups in society. Nevertheless, the main function of timber production has, in practice, led to close cooperation with forest owners. An orientation according to clientele facilitates enforcement; however it comes under pressure in forested areas where recreational or protective functions dominate. In this case, forest administration has to seek a trusting and cooperative basis with the respective interest groups, even if they are in conflict with the owners. Here the traditional orientation to forest owners decreases the chance of finding acceptance with other social groups, which would promote enforcement. The more substantial and wide-scoped forest administration's array of forest-related tasks (instead of user-related), the less it can follow the principle of clientele and benefit from the forthcoming advantages.

- **Adherence to Binding Regulations**

All measures taken by administration follow strict regulations. Both the goals and the measures taken to achieve them are stipulated in detail. Four formal criteria play a central role (Schauer 1983; Hoffmann-Riem & Schmidt-Assmann 1994):

- **Objectivity:** Administration has to grasp the problem objectively. The forest expert is an important figure for providing the support required by lawyers.
- **Efficiency:** Administration has to take into consideration the effectiveness, as well as the relationship between the means and ends (efficiency rule), of all measures taken.
- **Impartiality:** Administrative officials have to refrain from making any personal statements.
- **Legitimacy:** Administration is subject to a dual legal obligation (Böhret 1998). It cannot take action against the law (priority of law) and additionally requires explicit legal authorization for any action it takes (provided by law).

The adherence to binding regulations is supplemented by the **principle of documentation** followed by practical administration. It creates the prerequisite for continuity in processing and control.

The rules followed by practical administration also include extensive guidelines for planning, executive work and budgetary control (Becker 1989, p. 705). In the budgetary household, the focus is on controlling all money flows in administration through external auditing. Cameralistics, i.e. the science of public finance, developed expressly for this purpose, differs from business accounting and cost accounting, which serve towards optimizing business profits. If forest administration takes on the task of managing state forests, it will need expand its accounting to secure the data required for business management.

Certain issues are defined by administrative regulation, and administration deals with them strictly according to standard measures. In the form of legal norms and the ensuing administrative norms, the regulations give detailed instructions according to the method: "If that is the case, then this must follow." This "**conditional control**" leaves little leeway for the lower positions, in terms of which details require attention and which measures or procedures are to be applied.

- **Full-Time Expert Officials**

Civil servants are to objectively conduct the tasks of their office, independent of their personal interests. The standardized scheme of permanent civil service in basic constitutional law (Article 33) serves towards this purpose. It requires full dedication of manpower and loyalty pledged to the fundamental order of liberal democracy. In return, the state grants permanent employment and is obligated to provide social security for its civil servants. The security provided to civil servants should enable them to fulfill their tasks in keeping with the regulations, independent of other influences. The practical requirements also include training and education of officials, whose positions in administration are connected to a certain field of training. The top positions in forest administration are occupied by university graduates, and the senior positions are taken by graduates from the special colleges or academies, whereby all civil servants are required to complete an additional state forest management training course which culminates in a state examination. Forest administration has high expectation of its officials, who thus count among the best trained experts in the forest sector.

Based on the theory of bureaucracy, forest administration is able to rationally conduct politically stipulated local programs. Their **success greatly depends upon three general conditions**, which are only partially fulfilled in connection with the setting of objectives and the general context of the forest sector:

- **Substantial Objectives:**

An administration body, which is geared towards the maximum realization of its implementation of objectives, can only act rationally and successfully in as far as it politicians have set clear objectives. The legal directives issued to forest administration regularly lack substantial clarity. Although the directive to manage the forest "to the greatest benefit" of the general public has been detailed in individual legal stipulations, such as the objective of "securing the protective and recreational functions of the forest; consideration of nature protection, landscape protection, water management and timber production according to economic principles" (Lower Saxon State Forest Act §7; Bavarian Forest Act, Article 18). Yet how a local balance in a specific forest is to be achieved considering the often contradicting objectives is relatively unclear according to the legal standards and the administrative guidelines based upon them. Because it is impossible to arrive at a consensus in the legislative process involving conflict-ridden issues, the main objectives required by bureaucracy to functional optimally are not standardized.

- **Uniform Tasks and Solutions:**

Conditional control, which has been set down in rules, prescribes predetermined solutions for certain kinds of problems. This procedure can achieve a high degree of efficiency, if a great number predictable problems occur repeatedly, and new problems are not constantly arising. Bureaucracy is successful in routine business matters, however it quickly reaches the limits of its capacity in the face of exceptions. Normally, tasks regarding sovereignty, advisory and extension services and subsidies can be efficiently dealt with by forest administration bureaucracy. Management of the state forest is also conducted as routine business with uniform management procedures. The continual development of new products and marketing strategies, which have become indispensable for successful business in the face of growing competition, only finds limited support in a bureaucratic organization.

- **Stable General Context**

The stipulated administrative structure and detailed conditional control also require a stable policy-making environment, on the whole. The offices are locally equipped with personnel, expertise, material resources and decision-making power for the most important forest-related tasks. The administrative structure and decision-making guidelines have been optimized for dealing with certain tasks in a certain political and economic context. Fast-paced changes of context inevitably lead to less than optimum administrative structures, until the bureaucratic organization slowly transforms itself, or the context changes again. The structural conversion from agroforestry enterprises to forestry enterprises without any agricultural operations, the growing environmental protection demands and the European Union's forest policy activities are examples of the contextual transformation to which a bureaucratic administration can only slowly adapt. The inflexibility of bureaucratic organization prevents forest administration from following short-term political trends. However, it also runs the danger of missing the chance to adapt to long-term changes in the general context of forest-related issues.

6.2.3. Theory of Management

The theory of management established regulatory instruments for the public sector, which are mainly based on control systems in the private business sector. "New Public Management" (Damkowski & Precht 1995), and its German variation (*Neues Steuerungsmodell*), which is characterized by its great diversity and self-critical analysis (Jann 1998), aims towards remedying serious flaws in the theory of bureaucracy. On the one hand, it deals with overcoming internal administrative obstacles, such as inflexible measures unsuited for solving problems, economically inefficient budget regulations and lacking incentive for personnel performance. From all the diverse theories which have been developed and tested in forest administration, several common aspects can be determined (Krott, Kermavnar & Matijasic 1998):

- **Political Objectives:**

The political institutions dictate detailed objectives for administration, which have to be achieved within a certain period. A negotiated set of objectives dictates the goals of all administrative functions in a form which can be evaluated. A model has to be set for the public forest administration bodies.

The managerial function is limited to formulating and commissioning the executive institution with the implementation of these goals.

- **Client-Oriented Administrative Services:**

The services provided by forest administration are to be described from the client's perspective. The public functions of forest administration are divided into a manageable number of services which are directly geared to solving the client's problems. Just as the product of "sawn roundwood" indicates a certain potential use to the buyer, forest policy tasks shall also be defined anew, e.g. as an "environmentally compatible forest ecosystem" for the target group of "environmentalists and the general public" or as "security in the form of a communal forest" for the target group of "forest recreationists and investors." Certain forms of grassroots participation have also been introduced as instrumental.

- **Decentralized Regulation through Commissioning:**

The basic administration units are commissioned to fulfill set objectives by the central administration body. On the one hand, these commissions define the stipulation to be performed by the units, and on the other hand they dictate the margin of action for employing personnel, financial and material resources. The personal responsibility of the unit heads to produce good results obligates them to achieve the performance goals stipulated in the commission. The commissions enable the unit heads to continually monitor target fulfillment in their units. Decentralized self-regulation is thus implemented in administration.

- **Flexibility and Performance Incentives for the Units:**

The units have a great margin of freedom to flexibly deal with issues. The overall budget, which enables the units to decide on how the finances are used to cover the various material resources and personnel, as well as the formation of reserves, contribute considerably towards this. The employees' work is not organized according to strictly defined competencies; instead their work is defined by the issues to be dealt with. Their performance is improved by training and financial incentives.

- **Markets and Competition for Improving Performance**

The competition in the markets results in great pressure on individual enterprises to increase their efficiency. The new model also encourages this

competitive mechanism in internal and external administration. The individual units, such as the forestry offices, compete for budgetary funds and further incentives which are their prospects for properly fulfilling their commissions. Developed markets for externally offered services may be lacking, however substituted instruments should generate a competitive environment similar to the market. Reference figures from comparisons with other administrative units established growing standards for the purpose of increasing performance. Wherever organization allows, competition of public administration with private enterprise is promoted, e.g. advisory and extension services for forest owners.

- **Quality Control:**

All the work done by administration is monitored by a reporting system based upon reference numbers. The accounting is to include cost accounting which determines the performance expenditures for providing administrative services. The quality of services and products is determined according to the measurable achievement of targets set in the commissions. Furthermore, quality control procedures investigate the reasons for digressing from the targets and elaborates proposals for improvement together with the employees.

The new regulatory instruments have proven their worth in regulating business enterprise. The **capacity limits of this concept** of administration are found where public functions differ fundamentally from the function of profit-oriented market production. Several problem complexes emerge:

- **Detailed Objectives**

The fact that politicians dislike setting detailed objectives, which hinders the bureaucratic model, is also a problem that burdens practical management. Objectives and models are often very general, because politicians prefer ambiguous goals which awaken hopes and hide contradictions, in comparison to clear goals which may promote conflicts. A lack of detailed objectives weakens the theory of management more than it does the theory of bureaucracy.

- **Constitutional Adherence to Binding Regulations:**

The constitutional obligation of administration results in conditional control which designates standardized measures to be taken by the state to resolve

standard issues. The legally standardized limits define the possible paths of action for the state and guarantee the rights and liberties of citizens, as regulated by justice. Target management only prescribes targets for the administration units and leaves them a great margin of freedom in choosing the means to the ends. A flexible administration should only fulfill its goals according to program, however it could also use the freedom it attains against the general public. Tensions between the standards held in court, enabling citizens to file a lawsuit, and the new (target-oriented) regulation of administration put a strain on constitutionality and the democratic checks in the new regulation procedures. For instance, a forestry office might come to an agreement with forest owners concerning measures for reducing wild game, which do not comply with the standards of democratically legitimized hunting rights. In contrast, an individual person can thwart comprehensively coordinated administrative plans by filing a lawsuit.

- **Measurability of Administration's Performance:**

The verifiable objectives of the commissions, internal quality control and external market-oriented competitive instruments, require administration's performance to be measurable. The theory of management aims at measuring significant performance with the help of the product concept. The singularity of public administration functions concerning public welfare, as well as democratic and legal standards, restricts their measurability, since the central gauge of business profits is of no consequence to administration.

- **Markets and Competition for Public Tasks:**

Markets for public tasks are often lacking, where various providers could generate competition. The creation of quasi markets, which react in a similar manner to real markets based upon special reference numbers and regulations, has not yet been well tested. In the forest sector, markets for selected services such as forest recreation and nature protection have only developed to a limited extent, despite repeated attempts. No attempt has yet been made to create market models for services, such as decisions regarding forest conversion or granting subsidies.

6.2.4. Informal Plans of Action

In addition to formal theories, informal plans of action also play a role in administration. All organizations informally establish information and power

networks for the purpose of pursuing their informal organizational and practical objectives.

- **Data Networks**

Each separate administration body has certain data available. For instance, ministerial departments are informed on state developments in forestry and the political context of the state governments, however the forestry offices are better informed regarding conflicts and opportunities for local solutions. Files of data, as administrative entities, are not available to all employees, instead they are compiled by the separate institutions in the form of databases, stored and selectively available via data networks.

The lower offices depend on data from the higher offices, however the management also makes its decisions based upon information received from the lower offices. Since relaying all data is impossible due to limited capacity, administration has developed its own procedure for dealing with large volumes of data. It compiles different levels of specific data. The higher offices make very general statements. Their formulations are general, i.e. a great number of individual cases can be summed up in a generalization. In the executive, the subordinate offices have to supplement the specific details of the general issue. They add their own data in order to apply a general standard to a specific problem. In contrast, the subordinate offices have to report on their decisions and results by summing up individual cases as broad developments. In their report to the executive, individual cases are elaborated in general terms, whereby a great deal of data must inevitably be omitted.

Since administrative work depends considerably on available information, the data network and databases with varying degrees of specificity hinder an administration body from acting as a single unit, as well as hindering circulation of data from the higher offices to the lower offices. Administration bodies usually constitute a number of individual institutions each of which input their own data autonomously into the general database.

- **Power Relations**

Only in as far as information is backed by power, will it reliably move a subordinate office to take a certain action. Formally, the higher office has the legal "power of command," yet the practical significance of this is limited, since the subordinate office can also apply a certain form of pressure or means of power. It can refuse to relay data, as well as delaying or altering

decisions. The subordinate offices can seek out allies, or refer to basic ideological decisions trusting in their great number. The resources of the higher offices are sufficient for informally implementing their power of command in individual cases. However, concerning their function on a whole, the higher offices depend on the informal cooperation of the lower offices.

- **Informal View of Tasks and Goals**

The informal area also includes the goals of the individual administration units and differentiates between informal goals of tasks and formal organizational goals (Downs 1967).

The officials develop personal views of the forest-related tasks dealt with by their office. The non-specific nature of the public tasks leaves some leeway for their informal view of the issues. A civil servant's informal objectives may either support or work against the official line of thinking. The authority's internal ideology, which is closely interrelated with the general political context as part of the authority's own political culture, greatly influences its informal goals. In Germany, for instance, forest officials speak out for sustainable utilization of forests (in timber production), which comes close to conforming with the values of the rural population, however it does not conform with the views of the urban population or those of environmentalists protecting a pristine state of nature (Kennedy 1985).

In contrast to the formal level, officials informally pay close consideration to their self-interests and those of their organization. Informally, each individual institution strives towards the greatest possible autonomy, securing resources as well as a safeguarding a wide scope of responsibilities. The informal organizational goal of improving their own situation and their resources has a great impact on the action taken by the individual institutions.

On the whole, forest administration work results from cooperation on both formal and informal levels. The impact of the informal influence on the theory of bureaucracy is basically a known factor (Krott 1990). Forest administration is much more flexible and problem-oriented than would formally be expected. At the same time, hierarchical control is very limited in the lower offices. The internal view of the forest expert is an important criterion for evaluation, and all the action taken by administration is strongly geared to increasing resources, such as budget, personnel and competency. Forest administration's self-interests complicate its external regulation by

politicians, corresponding to the democratic norm, and this is also responsible for the trend of growth in public administration. The management concept elevates some of the informal acts to a formal level, which can be directly regulated or controlled, if the management calls for problem-orientation or administration is entitled to more flexibility. The unit's interest in resources can be directly employed to achieve goals by allotting a bonus for good performance. At present only postulations can be made regarding the impact of other informal factors. There is thus an eminent danger that administration's aim for autonomy will lead to empty agreements only having a symbolical effect and politicians who shy conflicts. A further informal strategy derives from the centrally planned economy, which is also based on achieving targets (Thieme 1995). As a result, the standards of the commissions are gradually reduced instead of being increased to a maximum. This enables the commissioned unit to succeed more easily, as well as helping the higher office or the politicians in fulfilling a greater number of commissions. In the business sector, market competition combats the leveling tendency, however competition only arises to a very limited degree in the public sector. Due to a lack of analyses there is not a lot of information available for the purpose of correctly estimating the informal dependency of the management concept. Yet its success is dependent on both the effectiveness of the formal concept as well as the way informal power and information processes strengthen or weaken it.

6.2.5. Work Processing in Forest Administration

Formal concepts and informal factors define the various public tasks that forest administration has to fulfill. The group of tasks to be dealt with by a centralized administration body plays a role in ensuring the optimum organization. With regard to Germany, a comparison of the present administration's performance capacity with more highly specialized administration models is revealing (cf. Table 3: Task Fields in Forest Administration).

Table 3: Task Fields in Forest Administration

Tasks	Organizational Forms			
	Joint Administration	Business Enterprise	Joint Authority	Sovereign Jurisdiction
Business administration tasks				
Timber production	+ -	+	0	0
Protection and recreation	+	-	0	0
Asset management	-	+ -	0	0
Forest policy tasks				
Sovereignty	+	0	+ -	-
Advisory services	+ -	0	+	0
Financial support	+	0	+ -	0
Extension services	+	0	+	0

+ *very good*, +- *average*, - *low suitability for fulfilling public mandate*
 0 *no public mandate*

The tasks of forest administration, which have been differently standardized in the various state forest acts can be summarized into two groups: management of the state forest and forest policy-making functions. In terms of business tasks, there is the issue of sustainable and profitable timber production, but also that of recreational and diverse protection services. The latter two functions are usually designated "non-timber goods and services" in the forest sector. Property management is also included in business management. Forest policy task fields include territorial administration, extension services, subsidization and supervision, which are grouped together under "performance management," or simply "territorial administration" in the case of measures without administrative execution procedures (Niesslein 1985).

In the form of joint administration or a "central forestry office," all state forest tasks are delegated to a single administration body. Joint administration is best suited to fulfill the goals of public recreation and protection in state forest management, due to its involvement in public functions. This is why it cannot achieve such a high performance in profit-oriented timber production which is solely geared to marketing and proceeds. In managing large forest assets, long-term natural stability is the focus of attention, rather than economic growth. Involvement in the state forest enterprises provides administration with a politically strong and technically well-founded position in all forest policy task fields. However, in

terms of extension services, it has difficulty considering the concerns of private forest owners, due to its own business interests which are partially in conflict with the former.

The service profile of specialized forest administration bodies is clearly different from that of joint administration. Managing state forests through public administration would enable it to better pursue profit-oriented timber production and come close to achieving the performance figures of private business operations, if it did not have to take special consideration of public concerns. Recreational and protection services are either reduced or provided by other forest institutions. In Austria, for instance, state forests are managed by a special public administration body without a specific forest policy task field. Through a reform in 1998, a state corporation was established by the name of Österreichische Bundesforste AG. It is organized strictly according to the principles of business management and aims at making a profit in the same manner as a private enterprise (Österreichische Bundesforste AG 1997).

In Germany the assets of the federal government covering 370,000 hectares are also managed by a public forest administration body which is solely geared to this purpose (Federal Ministry of Finances 1991). The highest level of government supervision is fulfilled by the federal minister of finances who represents the owners. Forest inspectors fulfill the intermediate representation, and federal forestry offices conduct the administration for the entire country. Military interests dominate the utilization of these forests (military training areas) and the management of the areas along the federal waterways; this is complemented by landscape management and nature protection, as well as hunting and fishing. These means of utilization are given priority; however they are to be combined with the basic principles of proper forest management including financial returns. Therefore the objective of management is to secure the state forests for public functions, yet only to make a profit in forestry.

To fulfill the function of forest policy making, public authorities or a joint administration are both conceivable. A forest administration specialized solely in fulfilling sovereign functions could be structurally integrated in general public administration, although it would be a weak representational body due to limited capacity, as well as the lack of data and means for creating incentives. A joint administration, which additionally provides extension services, subsidies and management services, can achieve a performance level similar to that of an integrated forestry office, due to the mutual support afforded by its instruments. Orienting advisory and extension

services to the interests of private forest owners would then also be facilitated. Both forms of special forest administration bodies only exist in the German states to a very limited extent, and this only on certain administrative levels, such as the regional authorities in Lower Saxony or the district administration office in Bavaria. The other levels combine these functions in one administration body.

In addition to bundling tasks, strengthening the elements of the theory of bureaucracy or the theory of management also has an effect on forest administration's performance. The theory of management, based upon the private business sector, fulfills the function of business management for the state forest far better than the theory of bureaucracy, which was not developed for managing business. However certain elements of the theory of management are also suitable for increasing the economic performance of joint administration (integrated forestry offices). It cannot yet be determined whether the theory of management can provide public protection and recreation services without any organized demand similar to a market. However the theory of management can potentially define forest recreation and protection services by means of planning instruments, as well as securing support, including public financing, by means of customer orientation and grassroots participation (Krott & Sohns 1999). With regard to the forest policy task field, the theory of management was still in an experimental stage at the beginning of the year 2000, consequences on the constitutionality of administration, etc. still remaining unclear, as mentioned above.

6.3. Public Administration of Nature and Environmental Protection

Nature and environmental protection administration is an important state representational body responsible for the forest. Several peculiarities of environmental protection administration will be elaborated according to the model of Germany. Environmental protection programs are enforced on both the federal and the state levels. Since 1986, a separate ministry has been responsible for environmental issues, nature protection and nuclear reactor safety. Government's reaction to the Chernobyl catastrophe was to create this new ministry as a sign of political responsibility for the environment. Although such a symbol has little direct influence, the representation of nature and environmental protection issues by a special ministry has had the lasting effect of strengthening this sector.

The Ministry of Environment has the competency for central planning and coordination of nature protection. It is supported by special authorities responsible for certain special tasks. In addition to the Federal Environment Agency established in 1974, the Federal Office for the Protection of Nature was created in 1993, where nature and environmental protection was to be comprehensively and intensively developed on the federal level.

Public administration takes over the main function of enforcing nature protection law. The task of nature protection is fulfilled by general administration on state, regional, district and local levels. To afford support, special authorities have been established in the individual states, which are known as state institutions or offices for the protection of nature. The special authorities mainly serve to clarify the technical principles of nature and environmental protection. The responsible state ministries (highest instance of nature protection), the regional authorities (senior commissioners for nature protection) and the district administration bodies (local commissioner for nature protection) are responsible for legal acts based up the Nature Protection Act.

Nature protection administration, or that section of general administration responsible for nature protection issues, still remains a new administration sector with several special aspects:

- **Lacking Competency for Overlapping Issues (Model of "Mirror-Image" Departments)**

Nature and environmental protection issues are usually closely linked to land use. It follows that the goals of nature protection cannot be realized without close interaction among the goals of land utilization, such as agriculture, forestry, water management, transportation, etc. The limits of such overlapping issues can hardly be determined, thus administrative organization has difficulty with division of work pertaining to these problems. Neither can the task of nature and environmental protection be dealt with nor resolved without significant consequences for other areas of administration. Even with sufficient political clout (which does not exist at present), the organization of an efficient nature protection administration involves establishing special relations with other administration bodies.

A model for the above was created by Edda Müller (1995) comprising three principles for administration of overlapping areas:

- (Nature protection) administration requires strong, complementary "mirror-image" departments in its own sector, which can keep pace with the expertise of the other sectors concerned, such as forestry or water management.
- (Nature protection) administration appoints several environmental protection commissioners to the relevant administration bodies, who serve to ensure that nature protection issues are taken into consideration there.
- The minister of environment is given an ecological veto power analogous to the economic veto power held by the minister of finance.

However, the current reality of administration does not correspond with the assertive model created by Müller in any of the above three points:

- Administration bodies are only obligated to inform and give a hearing in good time to nature protection administration regarding issues concerning nature protection (Federal Nature Protection Law §3). In administrative practice, nature protection administration still has to struggle to attain its right to information and a hearing.
- Administration bodies are called upon by law to support realization of nature protection goals in their area of competency. Forest administration is particularly active in the protection of forest environments, whereby it aims to include nature and environmental protection issues in proper forest management (Wagner 1996). Forest administration informally attempts to cover nature protection issues concerning forests for the purpose of limiting the influence of nature protection administration. It refers to the Federal Forest Act, which includes nature protection issues. In practice, nature protection administration only has a special right of codetermination or control, as intended by Müller's model, in rare cases, such as those concerning afforestation or forest conversion.

- **Professional Environmental Protection Officials**

The expert qualification as well as the number of officials, who fulfill the tasks of nature and environmental protection, has increased greatly over the past decades. The greater number of interested and trained officials improves the position of nature and environmental protection, in practice. In addition, most of the young officials have had state-of-the-art scientific training on

ecological issues. However, the limited establishment of recognized technical standards in nature protection and the lack of uniform ideological orientation among qualified officials informally weaken the system. In contrast to the more uniform expert opinion of traditional administration bodies, such as forestry or agriculture, nature and environmental protection is thus often not as informally convincing.

- **Voluntary Environmental Protection Commissioners**

Nature and environmental protection administration still has too few expert officials to be able to fulfill its legally stipulated functions. Environmental protection administration therefore strongly relies on work by voluntary environmental protection commissioners (e.g. Nature Protection Law of Lower Saxony § 58). These commissioners promote nature and environmental protection among the general public. At the same time, they perform the important task of practical monitoring on site and gather material required by nature protection administration for the purpose of decision making. Many foresters, especially forest officials, have taken over voluntary tasks in nature protection thereby ensuring themselves a significant opportunity for cooperation. In contrast to Weber's theory of bureaucracy involving an administration body with professional officials, voluntary commissioners have less capacity to perform these tasks. This idea was taken over from the time when nature protection had little weight in the form of a public function. However, if there were a sufficient number of professional officials, voluntary commissioners could significantly contribute towards achieving a grassroots administration body.

Environmental and nature protection administration has also formed a so-called "landscape vigil" consisting of volunteer on-site monitoring (e.g. Federal Nature Protection Law §59). To a limited degree, it fulfills the function of a public warden, e.g. to protect flora and fauna from being encroached upon by recreationists. Such public wardens are very cost-efficient for the state; however they are only able to achieve a limited degree of surveillance which is, moreover, limited to straightforward issues.

- **Improved Expertise from Scientific Institutions**

Nature and environmental protection administration is based upon the expert competence of scientific institutions, i.e. institutions without decision-making competence. Such technical concepts enable nature protection administration to take up problems in areas where it has no legal competence. For instance, maps showing the range of threatened biotopes or

species also show forested areas which fall under the responsibility of other special administration bodies. With the scientific elaboration of environmental protection issues, environmental protection administration has initiated a process which will encourage increased cooperation, as well as financial and legal resources to resolve issues.

- **Competent Offices in Protected Reserves**

Only in specially designated nature protection reserves does nature protection administration have comprehensive overall competency. Over the past decades, it was possible to gradually increase the total area of nature reserves. In the national parks and nature reserves, which often comprise large state forests, there is a dire need for cooperation with forest administration (Krott & Smykala 1993). In creating nature reserves, the informal efforts of both administration bodies often come into conflict with each other regarding competency for the reserve, personnel and material resources, whereby forest administration regularly has to relinquish its resources. It was only partially able to take over the task of managing the national parks through its own administration body.

- **Advisory Committee Cooperation with Land Users**

On all levels, nature protection administration is provided with various advisory committees including representatives of land-users and the forest sector. This promotes information exchange with land users and makes it easier to achieve a consensus. In the face of conflicts, however, they may inappropriately prevent administration from maintaining a strong orientation towards nature protection goals (Deixler 1991).

- **Cooperation with Recognized Nature and Environmental Protection Associations**

Recognized nature and environmental protection associations have to be comprehensively informed by administration about plans affecting nature protection. The associations' positions support administration's environmental protection goals in the face of other targets, such as forestry. Nature protection associations also receive financial support from nature protection administration in order to fulfill practical functions, such as independent, on-site biotope conservation.

- **Cooperation with Nature and Environmental Protection Administration**

Nature protection planning and regional planning are modern tools which hold great problem-solving potential for environmental administration. In practice, however, these new instruments have only been able to perpetuate the existing power structure where environmental protection only has limited power of assertion. On a medium-term basis, nature protection administration is gaining more and more impact on land-use dedication. The comprehensive introduction of environmental audits and public hearings are current examples.

6.4. Further Forest Policy Research

Research on administration can be divided amongst three different fields of study: legal, organizational and policy studies. On the premise of the legal constraints of administrative action, jurisprudence analyzes the need for action and the legal margin with special reference to court rulings. In the specific field of forestry, special mention should be made of Klose & Orf (1998) and their lists of references. However, more general administrative issues, which also touch closely on forest administration, have been researched by Becker (1989), Isensee & Kirchhof (1995) and Creifels (1999), and their lists of references are worth reviewing. An analysis by Wagner (1996) takes a closer look at the practice of law enforcement (which is not only determined by legislation), and specifically examines the relationship between forestry administration and environmental protection administration.

Organizational research on business administration does not focus on the legal issues, but on the structure and organizational processes administration. Depending on the approach, either the information processes or the power processes are at the center of focus. Sagl (1993) provides a comprehensive overview of general organizational theory with reference to forest administration. State forest administration is also a common topic of research in forest economics. All of the operational approaches have in common that their analyses proceed from a comprehensive political assignment with clear goals for forest administration.

Forest policy research extends the analysis of administration to include everything in the surrounding fields. This also makes it possible to focus on the contradicting demands of politics on administration and the limited

means of power available for administrative enforcement. Legal standards and internal specifications are significant, however they do not suffice to describe or explain the action taken by administration in practice. Krott (1990) developed a detailed political approach based on forest administration in Austria. No such study is available for Germany, although forest administration plays an important role in most forest policy analyses which are geared to content problems. The studies, which are mentioned elsewhere in connection with political instruments, allow various insights into the political action taken by forest administration.

On the subject of administrative reforms, Damkowski & Precht (1995) and Bandemer et al. (1998) have critically introduced the current approaches. Reports on forest administration reforms have been made primarily by those with practical experience in the field, whereby the study by the Ministry of Agriculture, Nature Protection and Environment in Thüringen, Forest Department, entitled "Der Wald: Unsere Aufgabe"; Erfurt 1996, provides a comprehensive overview of the relevant German-language literature. One part of the project comprises an evaluation of alternative forms of organization in forest administration by a panel of scholars (Krott 1997).

Forest administration is an important topic of forest policy studies in the various countries of Europe. However, there is only little English-language literature available (Borchert et al. 2002; Rametsteiner 2002; Garforth & Dudley 2003).

CHAPTER 7

INFORMATIONAL INSTRUMENTS

By relaying information, forest policymakers can make direct contact with all the stakeholders concerned, including the general public, forestry enterprises, employees and associations. **Information is the basic and most common political instrument for regulating human action.** And information has a considerable impact on the above stakeholders all by itself. One only needs to think of the forest owner who hears of the large growth potential of spruce trees and the high price of spruce wood. This information can result in the owner voluntarily orienting his management decisions in accordance and planting spruce trees. If the same owner receives the tip from an even more credible office that spruce would be very susceptible to red ring rot at that location thus becoming unproductive at an early growth stage, he would presumably voluntarily reverse his decision and favor beech trees, instead. It is very obvious that the behaviour of those who protect or benefit from forests is highly influenced by information.

Informational instruments are all those political means of intervention which formally influence social and economic action through information alone.

Controlling society via information would seem to be taken for granted. Compiling and processing data on the forest sector for the purpose of decision making is characteristic for all stakeholders who are involved in forest policy making. Nevertheless, information affects people's decisions and actions in two completely different political levels: public awareness and power.

Information can result in public awareness, if it correctly informs stakeholders about the environment or their specific actions. A stakeholder can thus gain a broader basis for decision making, which improves his or her capacity to take the proper action. The better the information, the easier it is for the stakeholder to choose the optimum forestry measures to promote his self-interests.

However, information can also be used to exercise power, thus rendering a stakeholder dependent. False information, not recognized by the recipient as such, influences his decisions in a way that he actually does not want. False information can thus exercise power which is comparable to physical force. In an extreme case, someone who has been deceived regarding a poisonous substance will ingest it voluntarily and may lose his life solely on the grounds of false information.

More often than using false information, politics use symbolical information as a means of power. As mentioned in the chapter on programs, the so-called condensation symbols do not mediate any factual data, instead they evoke strong feelings, such as fear or hope. The symbol of 'acid rain' signalizes danger and generates fear affecting people's behavior. They are forced into taking a certain action without really knowing why. They lack the facts in order to form their own opinion about the state of the forest, to stick to this example. Whoever makes use of clichés is thus using his or her power to influence other people's behavior.

In forest policy practice, informational instruments are usually employed both for the purpose of achieving public awareness as well as power. In democratic systems, the stakeholders formally emphasize that public awareness is generated by their instruments of information. This distinguishing factor is therefore also part of the definition. In contrast, only informal power processes take place in this connection.

In forest policy, informational instruments thus defined also include advisory and extension services and the educational factors, such as continued forestry training and forest education. Individual persons are targeted by each of these informational instruments. In contrast, entire social groups are targeted by public relations measures, including forestry or forest sector reports, which will be elaborated in detail.

7.1. Advisory Services

Advisory services are specifically geared towards forestry stakeholders individuals, and these services are meant to elaborate improved opportunities for sustainable and profit-oriented utilization of forests. Traditionally, the public forest administration provides comprehensive advisory services for private forest owners. The head of the forestry office, and the regional officials, in particular, provide advisory services in the form of numerous person-to-person talks, however they also conduct consulting campaigns for

private forest owners without a forestry enterprise, who lack expert know-how in forestry. The forestry departments of the chambers of agriculture play a major role in advisory services in all the states where such institutions have been established, as well as the forestry cooperatives which also conduct forestry work themselves. Larger private forestry enterprises with their own expert personnel cover their need for advisory services mainly through specialized private consulting offices. In addition to fiscal and legal consulting, business consulting has grown in significance over the past decade. Important information on managing a forestry operation can be purchased through so-called "forest advisory services," which partially compensates for having to employ expensive, highly qualified personnel on site. Individual forestry enterprises can broaden their scope of business by providing advisory services in commission.

Private consultants also influence the forest policy instrument of advisory services. Most consulting issues, such as silvicultural procedures, logging and marketing of timber, use of equipment, accident prevention, development, business management, intercompany cooperation and financial promotion can be covered by private consultants as well as state institutions, both having high expert competency. The use and impact of state advisory services are thus to be analyzed in close connection with private consulting.

Consulting provides targeted information on improved methods of utilizing and protecting the forest. Since consulting indicates new and improved chances, its goal is that clients will be able to practically apply these improvements without additional political pressure. A central aspect of consulting is the orientation to the client's needs.

Consulting provides information to support the client in resolving his own problems.

Consulting points out paths of action of which the forestry client was not yet aware. The client decides for himself to which degree he can achieve his objectives using the information provided, and makes the respective choice among the possibilities. In contrast to public relations work, advisory services do not primarily intend to foster understanding for a political position, instead they should comply with the client's interests.

7.1.1. Consulting Concepts and Their Formal Impact

The diverse forest sector advisory services can be divided into two different concepts, similar to general consulting concepts, namely "forest sector production consulting" and "forest sector problem consulting" (Albrecht et al. 1987). **Forest sector production consulting** is based on the optimum, sustainable utilization of a forest. It determines the sustainable production potential for different forest sites and thus derives a consulting guideline. The changing public expectations of forests has led to a rejuvenation of traditional functions of a forest, where nature compatibility and biodiversity e.g., are of growing importance. The elaboration of special production ideals for various owners is also a common practice. In the case of small forests owned by farmers who, in contrast to state forestry enterprises, use their own more cost-effective manpower and have greatly varying yields, special targets will apply. Expert forestry production models must be derived from the **overall objective of sustainable forestry**. State institutions solve the problem of valuation by referring to the legally standardized public functions of the forest sector. The current interest in the concept of forest sector production consulting is also reflected by the "Pan-European guidelines for sustainable forest management on an operational scope" (German Ministry of Agriculture and Forestry 1998). This model should be introduced in practice for the purpose of voluntary implementation.

The concept of **forest sector problem consulting** takes a contrasting approach. It is based on solving specific problems for individuals, who profit from forests, instead of the ideals of forestry experts. The individual's view of the forest and his expectations are at the focus of the search for solutions. For instance, this means that a forester, who prefers spruce, is not advised to plant deciduous trees, but that it first has to be clarified what the advantages of spruce would be. His personal benefits play the major role in consulting. Not each individual problem can be anticipated in forestry. In order to fully cover them, certain target groups and their participation have to be considered. The target groups should be chosen according to site and size of operation, as well as situation and profession, in addition to forest criteria. For instance, urban forest owners, who live in a city and draw their income from work other than farming, have an entirely different interest in the forest than farmers owning small forests, even if both of their forests are quite the same in terms of ecology and economic potential. The particular views of the target group determine the consulting concept. The target group should also be given sufficient opportunity to introduce their self-interests in suitable processes.

The concept of "forest sector problem consulting " is a modern alternative to traditional "forest sector production consulting" which is criticized as being technocratic, condescending and not very successful. Instead, the focus should be on the client and his participation in supporting implementation. However, an analysis of the **impact of consulting** also indicates the limits of the problem consulting concept. It is not an entirely new principle; it simply represents angle in approaching the task of improving forestry practices through advisory services.

In the course of consulting the client's interests confront those of the consultant (cf. Illustration 4). It can be assumed that forest administration consultants will pursue the goals set in official state programs. Those who make a private profit from forests have multiple interests, whereby financial proceeds play a major role. Since consulting does not use force, it can only achieve results in as far as there are mutual interests. It makes use of two mechanisms for this purpose. By raising awareness, the consultant conveys to the forest user where his personal interests conform with the objectives of public programs. The scope of common objectives is often underestimated in practice, due to lack of information. Environmentally compatible silvicultural methods and deciduous species do not necessarily contradict production goals; forest protection measures also help private owners avoid expensive secondary damage, and the same applies to for work protection. Technical arguments, which are understood and credible, serve to make forest users aware of advantages resulting in acceptance and implementation of the measures. Wherever raising awareness reaches its limits, **practical solutions** can help. The consultant can suggest a new solution, which serves both the interests of the private owner as well as those of the public sector. Practical solutions constitute real innovations in forestry. Natural rejuvenation processes are a corresponding example which save the costs of planting and also provide ecological advantages. The consultant conveys the necessary know-how to the forest owner or manager in order for him to be able to successfully implement the new measure. For his own benefit, the forest owner or manager will become interested in applying the new technology.

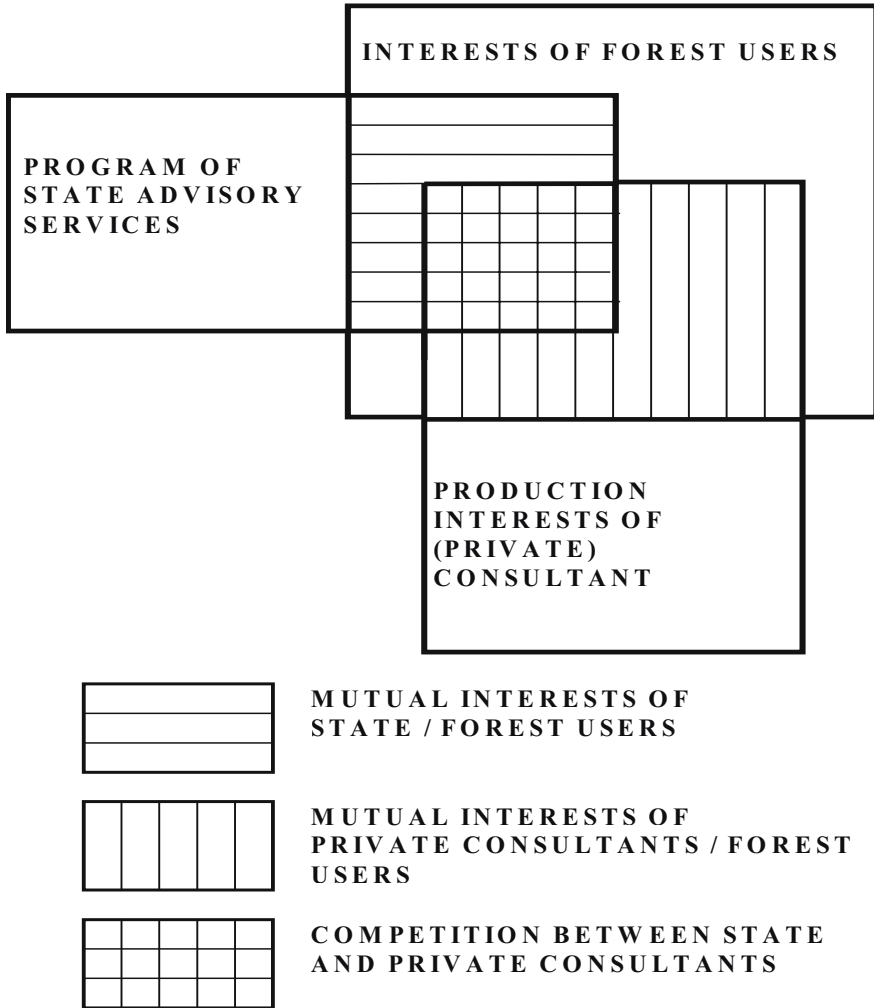


Illustration 4: Interests in Extension Services

Forest sector production consulting and problem consulting both function in terms of raising awareness as well as finding practical solutions. The difference between them is that forest sector production consulting is mainly based upon the know-how of experts and their capacity to convey information. Forest sector problem consulting focuses more closely on the

experience gathered by the forest manager or owner, and aims at conveying innovative know-how to him or her, if he/she is willing to take on an active role. However consulting has its limits where there is no longer a consensus of interests; this applies equally to both concepts. As long as it is received on a voluntary basis, forest sector production consulting will neither disregard the owner's or manager's interests, nor will forest sector problem consulting be able to implement measures which contradict public objectives.

The positions elaborated also help to evaluate the role of performance-oriented advisory bodies. They are only successful in the face of common interests, however their interest in performance also plays a role. On the one hand, this means that advisory services are not offered without the prospect of returns. On the other hand, consulting can also offer solutions which go beyond public objectives. For instance, this might involve forgoing mapping of the site, if it cannot be financed by the timber sales proceeds. An example of the second case would be tax consulting, if it transgresses the law in favor of the client. The pattern of interests also makes the differences apparent. On account of their different positions, public and private, performance-oriented forestry consultants do not offer the same services, which would render their counterpart superfluous. Concerning the existing common field of advisory services, competition between state and private forestry consultants is possible, whereas each of their special services can only be offered if both of the advisory bodies are active. Due to the strong position of advisory services offered by public forest administration and the chambers, competition in the advisory services market barely exists at present.

The impact of advisory services also includes those factors which give rise to success. They are all based upon increasing the **quality** of information as well as improving the **transfer** of information. Quality is measured according to the contribution it makes towards raising awareness and finding a practical solution. It thus requires innovative forestry expertise, among others. A great deal of such expertise has already been accumulated in public forest administration, whereby its consulting position, similar to a monopoly, and its involvement in large-scale forestry operations reduce the innovative impact on the special needs of small, private forest owners. The transfer of information takes place in a long chain which involves listening, understanding, accepting, applying, maintaining and succeeding. It requires an objective form of communication which is social and emotional at the same time. At this point it is neither possible to go into depths on the various consulting instruments, such as individual discussion, group discussion, demonstrations, trade fairs, images, etc, nor their psychological modes of function. However, even without these details, the forestry consultant's need

for a great deal of comprehensive expertise and know-how is obvious, combined with considerable practical resources in forest administration. Of even greater significance for forest policy is the conclusion that any improvement of consulting material or techniques always aims towards increasing common interests by raising awareness and providing practical solutions. However, conflicts beyond this field of consensus between forest owners or managers and the expectations of the general public will even resist regulation by means of the most innovative advisory services and psychologically refined communication techniques, if advisory services formally remain on a voluntary basis.

7.1.2. Informal Use of Advisory Services

Consulting, which formally works through information alone, is transformed into an instrument of power in an informal scope and has a very strong impact, because it is concealed, for the most part. If the forest owner does not want to follow the expert's advice, and the expert threatens with consequences pertaining to the owner's application for subsidies e.g., this constitutes an open struggle for power. In Germany, such violations of legal norms are discovered, as a rule, and corrected by improved training of consultants on the part of the advisory body.

Hidden power struggles, where clients do not put up any visible resistance, have much worse consequences. False information is a simple instrument of power. For instance, if the forest owner is led to believe that a special fertilizer protects against frost, he may buy the expensive fertilizer apparently of his own free will. If he had been privilege to the correct information that the fertilizer cannot increase resistance to frost, he would have decided otherwise. The consultant has clearly pursued his self-interests in selling fertilizer by giving false information. Although this example does not involve any indication of the use of force, it constitutes the abuse of discretionary power. This kind of hidden power struggle always means that **the subordinate person cannot undertake the necessary decision-making processes** (Simon 1981; Krott 1990). False information deprives the client of the opportunity to make his or her own decision. Power is exercised for as long as the client cannot independently evaluate the degree of truth inherent in the information.

Whereas false information is relatively easy to expose, selective information usually overtakes the critical or decision-making capacity of the client. All the consultant's arguments may be correct, however he is holding back

important counterarguments. For instance, hard facts supply positive evidence of the advantages of deadwood in environmentally compatible forest management; however the risks for forest protection may remain unspoken, in order not to jeopardize acceptance. Most forest consulting issues are so complex, that it is practically impossible to avoid using selective arguments. If the consultant uses selective arguments, and the client is neither able to evaluate the selection criteria nor their correct application, then the consultant is abusing his power. The practical authority of the forestry consultant, which is based upon the selection of arguments that the client cannot follow, constitutes the most commonly employed instrument of power.

Consultants are able to exercise informal power to a varying degree depending in a consulting relationship with a client. Advisory services are geared to a certain forest manager or owner, however both of them also gather information from other persons. If the consultant has a strong position in the information network, this will make it easier for him to exercise his power, while a position equal to that of his client opens up the opportunity to cross-check information from several independent sources. Forest administration consultants typically have a strong position. In practice, the forest owner or manager is hardly able to compile competent data on specific details of forestry from other institutions. Superior expertise and technical know-how are further factors which promote selective elaboration. The forestry consultant's expertise and know-how usually far surpass that of the forest owner or manager. The latter are lacking the academic education required to conclusively apply their own observations or arguments and critically evaluate the consultant's proposals. Psychological barriers of acceptance place close limits on advisory services. For psychological reasons, forest owners and managers, like all people, only accept innovations with reluctance. Such reluctance is widespread among forest owners and managers (Duffner 1991). The consultant is confronted with this resistance. However the problem confronting the forest owner or manager is that his psychological motives for refusal do not ensure an optimum decision in his own interest, since he makes his decision according to other considerations instead of on a rational basis.

The elaborated general conditions of forest advisory services would indicate a great potential for informal influence to be exerted by the forestry consultant. When considering the informal level, consulting only provides the forest owner or manager with neutral information for "self-help," instead it gives the consultant an important instrument which he can use to assert his interests vis-à-vis the client. On the one hand, public forest administration

consultants promote the implementation of public forestry programs more than would formally be possible. On the other hand, forest administration also conveys its informal interests by means of its advisory services. Personal convictions regarding correct forestry practices are recommended to the forest owner, even if they go beyond his legal obligation to proper forestry management. In general terms, advisory services convey a positive image of forest administration and provides good publicity for its own legitimization. In the interest of administration, consulting informally promotes the forest owner's independence and critical capacity only to a certain degree, since no institution voluntarily promotes its own critics. Particular informal potential for action is developed through advisory services in combination with regulatory and economic instruments. Economic instruments catch the forest owner's attention; consulting makes use of the attention to exert an influence, thus easing the enforcement of economic and regulatory instruments (Krott, Marosi & Golya 1996). The prospect of financial support is a great incentive to forest owners, convincing them to give their time and attention to the forestry consultant. Once the consultant has set up contact, he can determine the chance of fulfilling the prerequisites for being granted a subsidy together with the forest owner, and work towards this in accordance with the regulations. Intensive advisory services therefore significantly increases the efficiency of financial support. Exchanging information also generates favorable conditions for conducting informal negotiations, which can facilitate enforcement of requirements and prohibitions, as later described in detail.

The informal influence potential opens up an additional source of income for the (private) consultant who is interested in profit-making. He uses his informally superior position vis-à-vis the client for the purpose of increasing his own income, instead of promoting public forest objectives. This can also pose a disadvantage in terms of the forest owner's interests. The stronger the informal influence potential, the less the competition among consultants can ensure quality service for the client. The development of market-regulated forestry consulting thus requires the state to take measures to ensure quality advisory services and competition amongst experts in the interest of the clients.

7.2. Forest Sector Training and Education

Education and advisory services both directly concern the individual person. Education involves the mediation of information and the know-how to usefully apply it to interrelated areas in life and work. It is evident that

education, thus defined, has a deciding influence on people's activities as well as their relations or possible contributions to forestry and forest policy. The great impact of education on forest policy contrasts with the few opportunities the sector has to contribute to education. The current pedagogical concept of life-long learning overtakes the possibilities offered by forestry. However, forestry institutions make contributions to training and education by participating in certain educational measures. On the one hand, the specialized training and continued education for internal target groups in the forest sector are worthy of special mention, and on the other hand, so is forest sector education which is geared towards more general target groups in society.

Forest sector training and education take on a central role in the forest development. Often in connection with agricultural colleges (Büscher 1996), the state offers forestry training and forest education at all levels from training in logging to university degrees. The educational institutions receive practical support from forestry institutions, in particular public forest administration and the forestry associations. The educational services and professional examinations for foresters, regulated by the state civil service act and managed by state forest administration, clearly signify the strong position of professional or vocational experience in forestry training and education. In addition, continued training and education in forestry is made possible through various activities organized by the forestry associations, such as excursions, training courses, meetings, etc. These activities show that the forest sector has recognized training and education as being an important task.

In contrast, **forest sector education** has become a field with an opportunity chance for new developments over the past decades. The traditional efforts made by the forest sector to introduce forestry to a target group of students, coincides with the strongly growing fields of environmental science and nature protection (Kalff 1997). This defines the area of tension in forest policy, which is elaborated in the following. The comprehensive findings of general education and its related fields, including psychology, sociology and anthropology, which ecology aims at employing to the benefit of environmental and forest education, will not be further detailed at this point (Bolscho et al. 1996). The more professional, i.e. didactically effective forest science teachers are, the more clearly visible the political consequences of this instrument will become.

The goals of forest education, and the diverse measures employed, are elaborated by the following example from Bavaria (cf. Example 6). Linking

forestry measures together with environmental concepts makes both the similarities and the contrasts between these areas apparent. Forest education aims at conveying a clear message to students concerning the value of foresters and positive problem-solving by forestry management. The teaching of specific, targeted solutions or social measures corresponds with the pedagogical concept of **forest teaching**. Forest education aims at introducing patterns of behavior to the general public, which will protect the forest without putting a strain on forestry, while perhaps even supporting it. Optimum management of forests is prescribed in forestry concepts, and forest education attempts to teach the basics of forestry. Conveying a positive image of forestry results from the affinity between of forest education and forestry public relations, a comparison which is generally rejected by the educational institutions.

Example 6: Forest Education in Bavaria (VOGI 1998)

Main goals:

- *convey the value of forests*
- *convey the value of forestry work*
- *acquire sympathizers for forests and forestry*

Methods:

- *forest open to visitors all year round*
- *use advertising know-how*
- *appeal to all the senses*
- *concrete proposals for simple implementation*
- *multipliers*

Activities:

- *200 forest adventure and discovery trails*
- *8000 forest tours (200,000 participants annually)*
- *3 forest adventure centers in the vicinity of Munich, Nuremberg-Fürth-Erlangen, and the Altmühltal Nature Reserve*
- *Hans-Eisenmann House in the Bavarian Forest National Park (200,000 visitors annually)*

- *2 forest youth hostels*
- *continuing education for teachers*
- *youth games in forests (50% of all pupils in 8th grade participate)*
- *"Forest Week"*
- *"Tree Day"*

The Bavarian concept of forest education also includes measures which could lead to other pedagogical concepts. "All the senses" are to be appealed to, and the forest is to be experienced on a personal basis. The pupils are able to undertake their own activities in a playful manner. Their self-initiative is the seed for a completely different approach to forest education. On the one hand, it is based on self-determination in the learning process, involving the formation of a personal opinion independent of the teacher. On the other hand, the holistic approach of experiencing the forest with all the senses leads to a "love" of the forest as a part of nature. A forest is particularly well-suited for teaching a love of nature and how to take self-initiative. In turn, this leads to the issues of environmental education, helping the student to develop his own learning process according to the concept of **ecological teaching**, and awakening humankind's love of nature in keeping with the concept of **nature education**. This approach to forest education does not necessarily consciously aim at concrete results, instead it intends to encourage the self-determined person to establish his own innovative relationship with nature. Whether the specific individual will become a supporter or a critic of the existing forest sector, is impossible to predict.

The forest also provides the subject and environment for a third concept of forest education: **Nature and environmental protection**. It aims at teaching the principles of nature and environmental protection on the basis of the forest. Natural processes and goals, such as protecting species, biodiversity and the pristine state of nature, are at the center of focus. The pedagogical goal is to promote nature and environmental protection, e.g. in national parks, even if this involves criticism of forestry practices.

The various concepts of forest education have consequences on the political realization of forestry interests: (1) Forest teaching, in as far as it succeeds, is intended to improve the individual's disposition to accept and support sustainable forestry. (2) The orientation of forest education along the lines of **nature and environmental education**, on the other hand, promotes development of an interest in the forest, whereby the individual will remain critical. Such a person will become actively involved in forest policy and

critically analyze existing forestry practices. He may be a nuisance, and will push towards renewing some of the standard forestry practices. Codetermination of forest policy by the critical citizen reflects the ideal of democratic politics, although this ideal still needs to be made feasible, and it yet to be supported by forest policymakers in practice. (3) The concept of nature and environmental protection makes use of the forest to foster the public's critical stance towards forestry.

The substantial political consequences of forest education or nature and environmental protection give forest stakeholders a political purpose for the great effort put into this task. The forest administration bodies of several states in Germany have succeeded in legally establishing forest education as one of their task fields. They are now responsible for teaching forest education with comprehensive professionalism, and daring to offer innovative nature and environmental education which should also result in pressure on the forest sector to renew its methods. An analysis clearly indicates the political significance of this informational instrument. The forest industry cannot hope for a completely "apolitical" forest education that only follows pedagogical principles and automatically promotes forestry. However it would serve the interests of the forest stakeholders even less to withdraw from public interaction and allow forest education to be taught solely in the form of nature and environmental protection in the forest.

7.3. Public Relations

Publicity is of basic importance to all political systems, particularly democracy. Through publicity, politics should be made visible to the general public giving it the chance to participate in political decision making. Without a minimum of publicity, the democratic election of government by the people has neither meaning nor legitimization. Democratic forest policy making thus requires publicity.

Public relations work related to forest policy and communication related to the forest sector has to involve outside parties. Public forest policy is not drawn up in closed circles of stakeholders; instead it has to be transparent and open for participation. Forest policy public relations constitute the open communication process concerning the forest sector. The degree of transparency is determined by its availability to those interested, independent of their interests (Sarcinelli 1998). If access were to be limited according to interests, this would only lead to a seemingly open state of communication. Then it would only include political advocates as is characteristic for

totalitarian forms of government. Despite a democratic constitution, the entire political public sphere is not represented either, since participation in public debates requires communication skills and resources which are not equally available to all of the public. In forest policy practice, the public sphere consists of various areas limited to certain stakeholders. The public arenas of forest policy are diverse and span everything from parliamentary debates and queries to the minister, as well as presentations at meetings of forest owners or chats in local restaurants and the exchange of ideas among friends and acquaintances. The ideal of a general public with all responsible citizens participating in politics is a fictional state, which cannot be realized anywhere due to the technical limits of communication, for one reason.

Three arenas are of particular importance in forest policy: public debate; the mass media; and transparency of the activities conducted by state and private forestry enterprises.

7.3.1. The Public Sphere

The general public debates politics in networks of people with whom they maintain more or less close contact (Schenk 1998). As a rule, relationships to family members, relatives and friends are more important for communication regarding politics than casual contacts with acquaintances, neighbors and colleagues. The border between public and private is fluid. Each specific network has a different degree of publicity. A restaurant is more public than a family home, and a silvicultural association is even more public. In even larger public networks, such as community meetings or political speeches in public, individuals members of the public may rarely take the floor, however their presence or their silence is interpreted by the speakers to indicate that the public is not raising a protest.

Public opinions are formed in day-to-day conversations, whereby the social bargaining process tends to make opinions more uniform. The hypothesis of the "spiral of silence in public opinion" indicates reasons for the formation of trends in opinion (Noelle-Neumann 1989). The willingness of individuals to speak about certain topics and promote specific values depends upon the majority's opinion. Most people seek recognition and avoid isolating themselves by expressing an opinion contrary to that of the group. For instance, since it has become commonplace in Germany to depict forests as being unhealthy, an individual will avoid talking about healthy forests in a

group, even if he has personally seen only healthy trees, and actually doubts the phenomenon of forest die-back.

In addition to the spiral of silence, a great number of other factors influence the formation of opinions in networks. Opinion-leaders can heighten the impact of certain information and evaluations. The message of the director of a silvicultural association carries weight, and an active environmentalist can also highly influence the opinions in a rural community. In modern society, opinion-leaders do not take on key roles in conveying information about forestry or the forest. They only dominate in individual networks, whereas people are provided with information by other media, as well as participating in public affairs via other networks.

With all their great diversity, the media play a particularly important role as a source of information for political opinion-making, since the individual member of the public can only directly observe or experience (forest) policy activities in rare cases. Central developments in the policy field, such as the state of forest or the soundness of timber, the financial state of forestry enterprises, the damage done to the forest by wild game, timber export yields, increase or decrease of mixed deciduous forests, etc., cannot be evaluated by the individual member of the public on his own account. In contrast to many other areas of life, the general public has to rely on information from the mass media, or gathered via networks from "informants," to make a picture of forest policy. However, the individual person does not immediately or completely adopt the opinion portrayed by the media, instead he chooses among the information available as an active recipient (Früh 1994). Depending upon (1) the various different sources of information, (2) his personal prerequisites, such as general knowledge and values established via his emotional link to the forest, (3) his current problems, and (4) his own network, an individual thus forms his own picture and personal concept of forest policy. An individual's personal image of reality can only be explained with the help of psychological theory, however this will not be delved into at present. Nevertheless, media impact research has provided data from the field of environmental policy (Donsbach 1995; Gottschlich 1989) which can also help in evaluating the personal characteristics of a recipient which are relevant to forest policy:

- The selection of individual topics pertaining to forestry and ecology targeted by the mass media are reflected in public debates. Television, in particular, publicizes political topics in broad circles of the population (Schenk 1998). Media reports and public opinion reinforce each other in the selection of significant events. This also relates to

forestry, as well as the forest, in as far as they have become an important topic in the mass media, such as in the face of forest die-back (Zierhofer 1998).

- Each person forms his opinion about individual topics depending upon the above converging processes in networks, as well as personal factors including value-ideas. Regarding opinion-making in Germany, there is a close connection between a positive attitude to forestry and the conviction that the total area of forestlands are increasing. On the other hand, those persons who have a negative attitude towards forestry have noted that total forestlands seem to be decreasing. Apparently the information provided by mass media is selectively acknowledged by these groups, each of which draw their own completely contrasting conclusions (Pauli 1999). In general, highly egocentric people do not take over the media's positions; instead they draw their own critical conclusions and defend their own opinions in discussion with friends.
- On the other hand, people with little interest in a certain topic will take over the media's positions to a far greater degree (Schenk 1998).
- Increased media consumption only has an influence on the selection of topics, not on their interpretation. Critical individuals may have a high media consumption, but they assume the positions held by the mass media to a lesser degree.

In conclusion, the people's public opinions differ greatly from the ideal of democratic public opinion, as commonly depicted in political practice. In the first place, there is no single "public opinion on forestry or the forest." Instead, different public opinions develop in each of the various public arenas. Those public arenas, whose "public opinions" are more widely accepted, are determined in the course of political competition. Individual stakeholders will always try to promote that public opinion, which serves their self-interests, as if it were the one (and only) public opinion, since this would increase their legitimacy. In this very manner, politicians, journalists and representatives of associations use the fiction of the single public opinion. However in actual fact, this always comprises various public opinions, since a uniform public opinion is rendered impossible by the multiplicity of public areas.

Secondly, the influence of the mass media and networks on the active recipient mean that public opinions do not simply reflect the reality of forest

policy. Public opinion may be an ever-changing reflection of reality, but it does not absorb information on the forest or forestry in a completely unaltered form. The conviction of the majority over the past decades that the total forestland is decreasing clearly illustrates the great resistance of public opinion towards well-documented facts.

In the third place, survey results do not reflect the various public opinions in practice, instead they construct a fictive totality of all individual opinions. The public opinion polls can provide a good insight into the individual opinions of citizens on the forest or forestry, in as far as they adhere to social scientific standards, and they also indicate how many people subscribe to the various opinions about the forest. But the sum of all the opinions does not automatically reflect that opinion which is officially represented and takes political effect. The sum of individual opinions only constitutes part of the basis upon which public opinions are actively formed in networks, and upon which people base their individual action. People's public opinions and actions both differ fundamentally from the totality of individual opinions. This difference is apparent in elections, for instance, when the election results do not correspond with the previous opinion polls. The sum of individual opinions in a poll cannot replace the political action of voting or that of public debate. The public opinion of an individual does not comprise the concepts of all individuals, instead it requires these concepts to be introduced into public debate and opinion-making processes on forests and forestry, which are as transparent as possible. Although it is impossible to equate the totality of individual opinions with the public opinion, the totality of individual opinions in expert polls does indicate important details which are commonly represented in various public opinions, and are thus relevant in forest policy.

7.3.2. Public Opinion in the Media

The media provide diverse public platforms for the presentation of (forest) policies. Both the mass media, including radio, television and daily newspapers, as well as professional journals and the Internet are significant for the forest sector. Until the present time, the individual forms of media have not replaced each other, due to their technically very different means of conveying information. In contrast, the mass media have grown with the introduction of each new medium, with the result that "the media and information society" plays an increasingly important role in the scope of forest policy (Meyn 1996).

The image of the forest sector generated by the media is diverse and highly characterized by the special features of the particular medium. Even in professional journals, which are more highly obligated to report objectively than the mass media, the forest sector may appear in many different lights according to the specific orientation of the journal. For instance, forest industry has taken on contrary positions over the past 35 years in the debate regarding sustainability in German environmental protection and forestry journals (cf. Table 4, Hütte 1999). In 16% of the forestry journals, the forest industry is designated the cause of problems from a self-critical stance; however the far greater share of 60% claims that the forest industry has the capacity to solve problems. Almost half of the articles (45%) indicate that the forest industry itself has become a victim of the problems of sustainability. The environmental journals depict an entirely different picture. They rarely mention forestry in connection with sustainability, and when they do, the forest industry is named as the cause of the problem. Since the 1960s, critical reporting about the forest industry has increased, yet forestry is only mentioned as a problem-solver in 6% of the articles on nature protection. According to its self-portrayal in forestry journals, forestry is succeeding in solving the problem of sustainability; however environmental journals depict the forest industry as having failed in this important task. How does it come to such contrasting portrayals in mass media?

Table 4: Portrayal of the Forest sector in Forestry and Environmental Journals from 1960-1995 in Germany (Source: Hütte 1999, p. 210)

Forest Sector as:	Forest Journals		Nature Magazines	
	90-95	60-89	90-95	60-89
Cause of problems	16	16	16	11
Victim of problems	45	34	2	4
Problem solver	62	67	6	8
News Source	75	58	3	5

The selection of news items and statements made in the media is the deciding process which leads to contrasting portrayals. The necessity of making a choice results from the huge wealth of news items and the limited space which each medium has available on a daily basis. This selection

means that portrayals in the media never entirely correspond to political reality. Even without distorting or falsifying individual events, there will be varying portrayals in media:

- Only a few forestry issues appear in the mass media; many very significant forestry issues are not reported by the media.
- Those stakeholders, who are given preference by the media, present the topics. For instance, forestry experts were quoted in 75% of all articles on sustainability in forestry journals, whereas only in 5% of environmental journals.
- A completely objective portrayal will give the stakeholders political impact. Various stakeholders are thus depicted as having an equal impact in the media, although in practice they may radically differ in their levels of expertise or economic resources, as well as the numbers of people they represent. The impression made by the media that they favor both sides equally, may actually even promote small groups, such as public interest groups, in contrast to larger stakeholders (Nusser 1994).
- The mass media select from the wealth of pro and contra arguments in conflicting issues and give more time and space to a position they prefer. This position will thus appear to be more strongly supported.
- In an extreme case, the selection of individual arguments can generate an image in the mass media, which completely contradicts the specific stakeholder's position, if only his self-criticism is made public, instead of his main arguments (Nusser 1994).
- Alteration of events by means of obvious value-judgements or false claims, over and above selection-making, only takes place in the mass media to a lesser degree (Nusser 1994; Krott 1987).
- Only in the form of commentaries, which have become increasingly common, do the media make clear value-judgements of political events.

The selection of news items is made by journalists in the editing teams of the media, as well as in the news agencies prior to that. Journalists evaluate all events according to whether they incorporate the popular news factors. The

chance of being selected as a new item increases according to number of aspects connected with news factors (cf. Table 5).

Table 5: News Factors (Sources: Grimme 1990; Wilke 1998)

-
- Short and clearly indicated time-frame
 - Unmistakable depiction
 - Spatial proximity to recipient
 - Relevant for a great number of people
 - Fulfills expectations and desires
 - Extraordinary event
 - Negative consequences
 - Conflicts
 - Direct reference to human beings
 - Direct reference to well-known persons
 - Direct reference to a currently covered topic
 - Direct reference to the media as the topic of reporting
-

News items on forestry or the forest also have an increased chance of being selected based upon the news factors they incorporate. In Bavaria, for instance, extraordinary topics, a direct link to the media and conflicts have proven to be important factors for the success of forestry news items (Bruns 1999). The second factor implies that mass media report particularly frequently on activities of forestry public relations work, such as press conferences or press excursions, as such. Independent of content, the media like to make journalism an object of their own reporting. Self-focussed reporting emphasizes the significance of the media and public relations without responding to criticism of the media society (Russ-Mohl 1997). News factors attract the attention of the national or local print media to varying degrees. Local reports are particularly concerned with a specific link to the region or well-known personalities, whereas controversies receive far less attention in reporting (Beerbom 1999).

Those news factors that have crystallized in practice have their deeper origins in the journalists' expectations and actions, on the one hand, as well as in the events and their organizers (Kepplinger 1998). The journalists seek to awaken the recipients' heightened attention through orientation to these news factors. The private media, which have increased in significance through the pressure of free enterprise to succeed, are increasing their orientation towards other traditional journalistic standards, such as

objective/well-balanced reporting, political program points and the (private) owner's targets. Staging political events as something "sensational" becomes the aim, and it also characterizes the image of forest policy (Jarren et al. 1996, p. 18). Clients advertising in newspapers also have an influence, since they cover around half the financing of a newspaper.

Which events are reported in the media also depends increasingly on the expectations of the media and their influence. In addition to "genuine events," more and more events are staged specifically for the purpose creating an impact in the media. Genuine events take place based upon the forest policy process alone. They form the reality of forest policy, from forest protection problems and conflicts in connection with subsidization guidelines to developments in timber pricing, which are reported by the media in as far as forestry issues are able to prevail in the competitive selection. Two further types of events are increasingly at hand for journalists. Multimedia events may take place without reporting, however they have a specifically media-g geared character with a view to reporting. The function of the annual report on the state of the forest is to provide expert data on the ecological state of the forest; yet these reports tend to fulfill journalists' expectations in terms of the statements made as well as they way they are presented. The great interest of the mass media in forest die-back has forced all forestry activities into the focus of the media in relation to forest die-back. Staged events are even more strongly geared towards the mass media. They involve politicians taking action for the sole purpose of making an impact on the media. Spectacular campaigns conducted by environmentalists are included here, as are press conferences, official openings by ministers or festive events hosted by the German Forestry Council. According to the above-mentioned example of forestry public relations in Bavaria, around one half of forest news items are geared towards the mass media. The increase of mass media events or staged events superimposes genuine events. Politicians react to these developments with event management in order to make an impact on the mass media and thus reach the general public. In as far as the news items in the media and political event management become more selective, the public will have the prevailing impression they have less and less to do with genuine events that directly effect people (and the forest) (Kepplinger 1998, p.176). The dwindling interest of the media in genuine developments also determines forest policy's chance of media coverage.

The mutual increase of media-related activities by politicians gives rise to careers of topics in the public media. The forest sector went through just such a media career in the 1980s with the phenomenon of "forest die-back."

The damage caused to trees and forest soil by emissions became known as forest die-back, beginning with an article published in the *'Spiegel'* magazine in 1981, creating a lot of media impact which reached its first peak in reporting in 1984/85, only to decrease again and reach a second peak in 1987, albeit to a lesser degree (Glück 1986; Krott 1987, 1994 (1); Ochsenhofer 1993; Holzberger 1995). However in the case of forest die-back, this media career was superimposed by a second form of media impact, since the myth of the forest has ensured that forest die-back is given special attention in the media right to this present day (Krumland 2000). Apart from this basic focus of attention, depictions in the media follow those phases which generally characterize reporting in the media (Russ-Mohl 1981).

- In the preliminary phase the topic cannot overcome the threshold of attracting attention. Specialists are aware of this problem, but the mass media do not acknowledge it. Most forest policy issues remain in the preliminary stage forever.
- The topic begins its media career in the initial phase. It catches the attention of several forms of media. A spectacular initial event can be very helpful in this process. The topic has to be brought into connection with the above-mentioned news factors.
- In the phase of impetus, the topic itself has been established in the media. The media coverage augments the topic by dramatizing the negative consequences and redefining the problem by confining it to those aspects which have to be resolved by politicians. By designating everything either black or white, interests are bundled and the cause of the problem, as well as the victims, are clearly identified by the media. Competition among the media provides the impetus for the media to cover more and more aspects of the same topic.
- The turnabout phase of media coverage sets in at the point where the shock of the crisis has passed. There are no further spectacular aspects of the topic which can be brought to light. There is an increase in objective reports which portray the dangers in a more highly differentiated manner, as well as pointing out the difficulties of the solutions that were considered so simple in the beginning.
- After the turnabout comes the downhill phase, and with it, the termination of coverage. The media turn to new topics. The old problem may still be covered for a long time by the media, but the

reports still reflect that nothing new and important can be said about the topic. Finally the topic may disappear from the media entirely, and it can only be revived again with great difficulty.

Only a few chosen topics achieve such wide media coverage that they follow this entire carrier, whereby it is particularly difficult for the issues of a sector as small as the forest sector to arouse enough interest in the media. In the rare case of a successful media career, the dynamics of the media lead to a phenomenon called the "paradox of disaster" (Von Prittwitz 1990). This means that a danger is blown up by the media either when it is no longer actually impending, or when it has not yet fully developed. In its phase of impetus, the new phenomenon of forest die-back also awakened exaggerated fears of an impending danger. On the other hand, the currently diminished media coverage implies that a solution has been found, although this has not been confirmed by the experts.

The **political impact** of opinions in the media lies primarily in the elaborated impact of the media on the individual and the general public with indirect consequences for politicians. The general public, which has been informed by the media, should influence politicians and policy making by means of elections, according to the democratic ideal. The media give the responsible person an objective instrument of information and control. In practice, however, this process is greatly distorted by misinformation, since the media always report selectively, and the public never gleans any information without distorting it to some extent. Nevertheless, media coverage plays an important role in the long-term political concepts of the general public. Yet it is mainly the parliament which has an impact on the people rather than the other way around. Seventy percent of the decisions made by the lower house of the German parliament coincided with the majority opinion of the population between 1949 and 1990. However a change of opinion is usually caused by parliamentary activity, instead of public opinion influencing parliamentary decision making (Brettschneider 1995). The mass media primarily convey the positions of certain politicians.

The direct impact of media coverage on politicians is much clearer. This impact is heightened by means of three self-deceptive assumptions made by the politicians. They assume that the media coverage mainly conveys the opinion of the general public; that most of the public pays attention to the media; and that the public orients its behavior according to media reports. All three of these assumptions are far less true than politicians may fear. Nevertheless politicians take media coverage very seriously, and react to the supposed opinion of the people as reflected by media more strongly than

necessary (Kepplinger 1998, p. 152). Politicians follow the media coverage closely, reacting with their own media campaigns to combat unfavorable trends or support those which favor them. When politicians react through the media or in the form of staged events, media and politics tend to become symbolical with problems and solutions being portrayed dramatically in the media, even if no policy measures are being taken at all. The current dynamics of the media society force politicians to intensify their (symbolical) performance (Saxer 1998).

Politicians' strong reactions to media reports give low-level politicians, who are weak in resources, the chance to gain influence through successful media campaigns. Through media coverage, environmentalists' critical media reports on the forest can have a notable short-term impact on politicians. One instrument geared towards media impact is, for instance, the "European Forest Scorecards 1998" developed by the World Wide Fund for Nature to evaluate the quality of forestry management in the countries of Europe resulting in competition for the best placing and good publicity. Media impact can even lead to victory over the toughest opponents, as the successful protest led by Greenpeace against Shell Germany's plan to sink the Brent Spar Oil Rig in 1995 has impressively demonstrated.

On the one hand, forest policy can count on contributing its own topics to the media coverage of politics, such as the rare case of forest die-back, or on occasion being included in the media coverage of problems by groups, such as environmentalists. On the other hand, forest policy mostly constitutes routine politics involving decision making and managing the utilization and protection of forests, which takes place away from the limelight of the media (Kaase 1998). As a rule, events in forest policy do not overcome the attention threshold of those mass media which are looking for topics of public impact. The significance of the public opinion in mass media is thus minimal regarding forest policy. However, forest policymakers may seek other methods of publicity to legitimize themselves and find partners.

7.3.3. Public Relations in Forestry

Not only does communication take place between the media and the general public; it can also be directly initiated by forestry stakeholders. For instance, forest administration conducts diverse information campaigns using information brochures, lectures and forest tours: Forestry enterprises offer their clients and other interested persons an insight into their operations. All

the activities that offer informal access to other parties are called public relations work.

Public relations work is the planned effort to establish trust and gain the understanding of the general public.

Based upon understanding and trust, forestry stakeholders hope to be able to better cooperate with their environment, i.e. to be able to successfully adjust and realize their business activities as well as their political concerns. Creating a positive general context is a long-term task which requires comprehensive public relations measures on a continuing basis to accompany all important business and political activities. Political players, such as associations, politicians and administration have always conducted public relations, albeit without using modern PR techniques (Krott & Tutka 1994). In contrast, forestry enterprises view public relations work as a new, additional instrument which they hesitate to use, despite the various tools available for forestry public relations (Bachhofer & Freidhager 1995; Halder 1992). Nevertheless, public relations work characterizes the general context of forest policy and forestry, whether it be the organizations' own PR work, or that of their partners or opponents.

The trust of the general public in politicians is a rare and valuable good. With concern to forest issues, forestry stakeholders do hold a certain position of trust with the general public, however the foremost position of trust is held by environmental organizations (Pauli 1999, p.186, cf. Table 6). The degree of trust varies from person to person. General advocates of the forest industry believe the information propagated through the sciences, forestry associations and the Ministry of Forestry; however forestry critics put more trust in environmental organizations. It is apparent that individuals place their trust in different groups, depending on their own personal interests. The public relations objective of generating trust cannot be separated from one's personal interests and those of the immediate environment, since mutual mistrust in politics not always results from misunderstandings, rather from conflicting interests, in many cases. No matter how intensive the public relations work may be, conflicts of interest regarding utilization or protection of forests will not evaporate by themselves resulting in a state of harmony. In contrast, PR measures need to be limited to a certain area of activities in order not to run the risk of increasing conflicts.

Table 6: Trust in Stakeholders Concerning Forest Data (Categories: "generally trustworthy," "entirely trustworthy" in percentages of replies by the German population 1999) (Source: Pauli 1999, p. 181)

Stakeholders	Highly Trustworthy
Environmental Organizations	71
Scientists	64
Forest Ministry	51
Environmental Ministry	43
Forestry Associations	59
Hunting Associations	34

Public relations work requires **constantly determining self-interests**. Only in as far as information is compatible with one's political and business self-interests, is it passed on to the general public. The formal claim of public relations that it creates transparency is all the activities of a business contrasts with the informal constraint not to harm one's self-interests with the information provided. PR work is thus always linked to the self-interests of the person concerned, and it cannot be expected that this will provide an entirely objective image of forestry or the forest.

The diversity of public arenas and opinions also applies to the public relations of a single person. Everyone defines and chooses **target groups** from their own perspective. For a company these may be: 1) business partners; 2) public groups and opinion-makers (i.e. teachers, environmental groups, tourists or the mayor); 3) colleagues, and 4) the media. These target groups have a varying impact on business; they respond to various messages according to their self-interests, and each of them is attracted by different PR measures. Orientation to target groups is a prerequisite for effective and efficient PR work.

The communication processes of **dialogue and networking** between the relevant stakeholders and the public are the objective of modern public relations. Dialogue not only means that the stakeholder has his own concept of a message which he passes on to his target audience; the audience can also answer him. Dialogue promotes partnership and increases trust, since partners can add to or correct the stakeholder's statements by using critical questions and their own arguments in public. However, an equal exchange of information does not ensue in the course of public relations work, because the stakeholder has more information available, thus maintaining the lead. In

addition to the psychological impact of a dialogue, which will not be elaborated in detail at this point, it is of great practical importance to the stakeholder so that he or she can gather new information from the critical questions posed by the target audience. Such information on the general context is helpful to the stakeholder's in forming his or her own political and business strategies.

Networking is aimed at a self-perpetuating communication process which is made possible through PR measures. Messages are to find their way into people's communication networks and spread via them. The goal is not only to make the most credible direct presentation of new concepts for **ensuring sustainable forestry** in the future. Public relations work aims at more. One person should tell another that his new method of forestry management will secure sustainability. The intention is that a stakeholder make public his achievements in the course of (positive) dialogue with others.

The complex and long-term task of public relations work demands **planned action** for the development and implementation of measures. The stakeholder himself needs to define his interests, since this will determine the action taken. He needs to have a clear picture of his key function and his desired image. A business image can be helpful, however it will not spare the stakeholder from deciding on it (Bode 1994). There is not only one single positive political image which is applicable to all stakeholders. There needs to be a general image which awakens a positive response in the important target groups without contradicting their interests. Defining their own image is very problematic for politicians in forest policy practice. The definition of interests makes internal conflicts visible in special administration or associations. They are dealt with on a day to day basis without dwelling on them internally. The image of a forestry association has to fulfill the difficult task of bundling all the members' diverse interests into more than just general statements. If the prerequisites of an image are not fulfilled, public relations work runs into danger of becoming a costly end in itself only serving the business interests of the PR experts and awakening the critical discussion it had actually hoped to avoid.

Like the media, public relations work also aims to attract the attention of specific target groups. It also employs the above-mentioned news factors. Despite the great diversity of PR work, three typical strategic arguments can be listed for PR work in forestry:

- The **message of success** counts among the standard lines of argument used in the business sector, i.e. multifunctional forestry also secures

nature protection and recreation in forests; economically healthy forestry enterprises manage forests properly; and wood is a unique natural resource, in that it links sustainable production with climate protection. In forestry public relations, positive aspects are emphasized, based on facts and enhanced by the emotional effect of words and images. An attentive listener is to be given the chance to learn a lot about the achievements of forestry. However, the impact of statements of success is limited by two factors. The first is that the news value of positive reports for the media and the general public is less than that of negative reports. Secondly, positive reports are open to criticism. They are often only given coverage if a critic, such as an environmentalist, undermines their credibility. Even if positive reports often do remain unheard, or sometimes give rise to additional criticism, they are still indispensable, since the image of forestry would otherwise be solely determined by critical media reports.

- The **anxiety strategy** depicts impending dangers concerning forestry or the forest, and is intended to attract attention by warning against a pending disaster (Krott 1994 (1)). This crisis strategy has traditionally often been used by forestry stakeholders with a great diversity of arguments. Even prior to and following the crisis of forest die-back, there were plenty of public warnings about critical developments in the forest industry, among them global warming, decreasing yields or the exaggerated demands of society on the forest (Mann 1998). The anxiety strategy, which is also favored by environmentalists, uses anxiety for the forest to mobilize the public. In practice this results in two unexpected effects. On the one hand, anxiety for the forest is usually not sufficient to make an impact in the form of one of the many disasters portrayed by the media, so that the forest industry's position remains inconspicuous. On the other hand, in the rare cases when the anxiety for the forest has an impact on the target group, the forest industry's positions remain in the background, since those messages that increase the level of fear have a greater impact in an atmosphere of anxiety, than forestry expertise might (Gehmacher et al. 1987). The phenomenon of forest die-back also provides an impressive example of this. The reports on forest die-back did not require proof to be publicly accepted, although the counter arguments were often not given any attention at all (Krott 1987). Despite considerable drawbacks in conveying the positions of expert foresters, the anxiety strategy is significant in forest policy due to its generally important role in media publicity.

- A **problem report** is more highly based on facts. It deals with the three aspects of: problems with the forest; solutions through forest management; and appeals to the public for support. A nature protection group has summarized this argumentation with the slogan "The forest has a problem – We have the solution." In conducting forestry public relations, stakeholders are confronted with great difficulties. Such an argument requires that problems concerning the forest are discovered early enough. However, forestry stakeholders are hardly ever able to express any self-criticism which is required for their credibility. The well-timed exposure of problematic issues requires actively staged PR work. The portrayal of plans for saving the forest also differs from messages of success, since success cannot be proven ahead of time. However PR work propagates prospective solutions promoting forests, which promise the greatest success in competition with others and which urgently require public support to implement them. Problem-oriented reports are only suitable for PR work in special cases due to their sophisticated arguments, however they are useful in direct work with target groups.

In addition to the elaborated public relations work strategies, PR tools also need to be employed professionally. Although strategic decisions can only be made by the respective forestry stakeholder, the optimum use of PR tools is best determined by a PR specialist. Public relations is a work-sharing process which involves politicians as well as PR consultants who make various important contributions. A great diversity of tools are available for PR work including: 1) press coverage involving press photos, press releases, exclusive interviews, press conferences or press excursions; 2) target-group-oriented tools, including printed material such as folders, brochures, flyers, journals, commemorative publications, business reports; slide shows, posters, films, public tour days, forest tours, lectures, presentations, schooling, exhibitions, sponsoring, prizes and gifts; as well as 3) internal PR: meetings, notice boards, employees' newsletters and personal talks. This list, which is by no means complete, makes clear the need for professional planning and implementation of these instruments (Pauli 1999; Dörrbecker et al. 1997). The required personnel and material resources has increased a lot over the past decades and burdens the forest industry so much that the lack of resources strongly limits the potential impact of forestry public relations. The focus is on the task of product and image advertising for private forestry enterprises and businesses in forestry and the wood-processing sector, rather than on PR work geared to building up general trust (Mantau 1996).

7.4. Forest Reports as PR Tools

The main function of information tools to enhance public awareness about the forest sector by providing data and facts is mainly fulfilled by special reports on the forests, forestry and forest soil, in terms of their formal objective. In Germany, forest data are collected by federal and state offices, in particular the experimental stations, planning offices and other offices of the state forest administration and the statistics offices. The reports based on such data partially result from legal mandates of the federal or state governments to provide the public with data and facts on current developments in the forest sector.

The annual agricultural report issued by the federal government is a particularly important report with a separate chapter on "forestry and wood processing;" in addition, there are reports on the state of the forest and forest damage, appearing annually since 1982; the rainforest report; and the forest report which has to be submitted once during each period of legislature and appeared first in 1998. Data on the former territory of the Federal Republic of Germany are supplied by the Federal Forest Inventory which appeared on 1-10-1987, and data on the new federal states by the forest inventory database (of the former Federal Ministry of Nutrition, Agriculture and Forestry). Further sources are the federally coordinated forest damage surveys in the states, permanent observation stations, and the survey on the state of forest soil. Business data are recorded in pilot business networks and the internal statistics of the public forest administration bodies. Diverse forest-related reports also appear in the various states.

7.4.1. Content and Data in Forest Reports

Independent of the specific objective, the contribution to the formal aim of increasing public awareness depends on the information provided in four different areas:

- 1) Basically, the **state of the forest** has to be elaborated in its natural condition including the qualitative and quantitative changes. This area includes, among others, the natural conditions of the site, the forest communities, tree species, forest range, age, stock, increment, rate of rejuvenation, forest damage, as well as changes in climate and soil. Such data can be reported in distinct scientific categories, and are thus scientifically based as well as universally applicable for other politicians.

- 2) The **direct and indirect benefits** of a forest include all the anthropogenic influences on the forest as a natural resource. In forest reports, utilization of timber and other economic benefits are the traditional focus, however in keeping with multiple-use forestry, other benefits of the forest are also mentioned regarding protection, recreation and habitats for plants and animals. The portrayal broadens the scientific description of a forest in social and economic terms. However it can still put a claim to being objective, if it neutrally reports on the various other benefits of forest utilization, in addition to the economic and social aspects.
- 3) With a list of **(forest) policy measures**, the reports summarize the politicians diagnose problems, evaluate objectives and implement solutions. The traditional objectives or measures targeted by the sector are increasing the performance of forestry enterprises, improving the competitiveness of wood as a natural material and increasing the stability of the forest. In addition, positions in international forest policy are covered, and the reports also claim to give an objective review of adopted forest policy measures.
- 4) With an **evaluation of forest sector developments and future measures**, the reports provide additional helpful information for the general public, as well as the politicians. Evaluations can increase the value of the information by creating awareness, if they are transparent and presented separately from the data and facts. However, hidden evaluations will lead to faulty judgements being made by the recipients. An explicit assessment, presented separately from data and facts in the scope of a report on the state of the forest by the federal government, would comply well with the requirements for providing factual information.

7.4.2. Political Limitation and Impact of Forest Reports

Formally, reports on the forest sector serve to **raise public awareness and provide an early warning**. The general public and the political institutions should be provided with the current facts on utilization and protection of the forest in order to be able to better judge the situation.

The elaborated concepts aim at being as informative as possible, whereby the information available is limited by politically influenced factors (Weidner, Zieschank & Knoepfel 1992).

- **The State of the Science**

The developments in the forests, and the relationship between business activities and environmental consequences have proven to be extraordinarily complicated. Often, science is far from being able to come up with proven connections and indicators. A commonly discussed example is the highly complex scientific problem generated by new types of forest damage (Krott 1994). The transformation of the titles of reports from "Forest Damage" to "New Types of Forest Damage" already expresses the great uncertainty as to how or whether the state of the tree crowns indicates damage to the forest. Prognoses on the development of forest damage cannot yet be completely validated on a scientific basis.

Research requires a strategy to reduce the degree of uncertainty. Research policy, which determines the focus of research, is thus directly responsible for the quality of information on the forest and the degree of public awareness. However only a small portion of new scientific data is reflected in the administrative and political reports. Processes significant for forest reports are those which improve the scientific basis of political decisions, especially the reform incentive "prognosis of consequences" (Böhret 1990).

- **Resources for Surveys**

The resources available for surveys of the forest sector put another limit on the information they can provide. Forest monitoring according to the state of the art requires a great deal of resources, especially considering the increased environmental problems. Only state institutions, rather than private ones, have available the sufficient means to regularly conduct such surveys on the required long-term basis. The scientific offices in forest administration which have been established in every country, as well as the environmental offices, and the statistics offices indicate the state's principle willingness to take over this function. Nevertheless, the annual allocation of resources to these offices has an indirect political impact on the quality of information available on the forest sectors.

- **Acceptance of Findings:**

Raising public awareness only succeeds to the degree that politicians are willing to accept the research findings. Since many of these findings are not be personally experienced by people, and are only conveyed by scientific indicators, the acceptance of findings is a weak point in scientific information on the forest sectors. Political decision-makers and the general

public often stick to traditional images and judgements (or prejudices) about ecological and economic interconnections and pay no attention to new insights. The accustomed assessment of environmental dangers appears far more credible to them, than any new scientific surveys. Concerning the discussion on sustainable forestry, a particularly difficult case of refusal to accept the findings is that the majority of the population is convinced the total area of forestlands continually decreasing (60% Pauli 1999). Facts on the increase of forest area (in Germany) often have no impact in public awareness campaigns, because they are not accepted by the target groups. Scientific facts alone cannot raise public awareness.

Informally, politicians are as just as interested in **exercising power via information** as in raising awareness. The impact of reports on political power involves two different factors:

- **Defining the Identity of the Forest sector**

Reports on the forest sector render forestry recognizable as a separate sector. They establish an identity for forestry as a sector that is highly significant in politics. Without its own forest reports, forestry would have remained unnoticed in the agricultural sector. At present, large portions of material relevant to the forest sector are simply included in reports on nature and environmental protection.

Without a coherent elaboration of its own subject field, the forest sector cannot voice its own position in the relevant institutions. It would neither have its own place in the programs, nor its own budget, its own officials in charge, its own administrative departments and its own scientific institutes, etc. The detailed description of the forest industry in the reports renders forestry recognizable as a sector which is justified in having its own political and social institutions to fulfill its functions.

- **Securing Competence**

Whoever compiles reports on the forest thus signalizes his competency to take action in this policy field. The capacity to compile scientific data on the forest gives the politicians a certain competency, even if they have not yet taken any related measures.

Forestry institutions saw themselves being informally lobbied to respond to the alarming reports on forest die-back with their own surveys and

statements on the state of the forest. Forestry institutions, which refused to make such statements with the initially justified reference to lacking scientific material, would have thereby already lost much of their competence. In contrast, with the expansion of their reports from limited forestry issues to more comprehensive reports on the forest, forestry institutions signalize their higher capacity of information on the forest and their resulting higher competence to resolve issues in the forest industry.

- **Mobilization or Demobilization of Public Lobbying**

The reports make public the problems of the forest sector. They can therefore also mobilize the general public by warning against dangers, or they can imply that all is well by depicting positive developments. Politicians use both possible effects according to their positions. In the face of forest die-back, particularly the environmental groups that are keen on mobilization, describe alarming scenarios of pending disasters and print warnings in their environmental reports. The substantial degree of uncertainty in scientific data leaves a margin of leeway for reporting the pending dangers and making a public impact without needing to twist any facts or figures. The systematic negative twist, which those groups tend to informally use in environmental reports to mobilize the public, can be proven in the environmental debate (Keck 1988).

In contrast, politicians utilizing the forest for business purposes are often only interested in positive environmental reports. In their own reports, businesses take the opportunity to mention forest issues, such as biodiversity, exclusively in a positive light, in order to cover up the negative aspects. The informal aim to provide evidence of positive results leads to distortions in forest reports, which are completely contrary to the negative distortions in mobilization.

- **Limited Indication of Danger**

Public forest administration is often blamed for publicizing biased information limited to positive results in its reports. This assessment of public administration may be a misjudgment of its actual informal interests.

To maintain its field of competence, public administration always strives to compile forest reports of at least the same quality as can be achieved by other stakeholders. Above and beyond this, public administration is also informally interested in portraying current dangers in its reports. Only by this means will lobbying result in administration receiving the budgetary

resources it wants. Public administration bodies have always pointed out the difficult problems they have to deal with. If administration does not have any substantial problems to solve, it loses the basis of its legitimization (Jänicke 1986).

Reports of dangers have their informal limits wherever administration threatens to lose control over these developments. Highly undesirable developments are only portrayed in a milder form, and administration always claims to still have everything under control. On the whole, public administration's information strategy is to publicize forest problems to a certain degree, but to cover up developments that are leading towards a crisis. Characteristically, the German report on the state of the forest annually declares that "the forest continues to be endangered," (however) "measures taken to prevent air pollution have shown success." This informally self-motivated trend towards publicizing an intermediate degree of problems differs from the other above-named stakeholders, who tend to exaggerate or underestimate the dangers (Krott 1991).

7.5. Active Information Tools of the General Public

Through its right to information, the general public has attained more room for action in comparison to public relations work. Only with comprehensive information is the public able to properly assess the impact of the forest industry, etc. This information enables it to evaluate the management of public administration or other forestry stakeholders according to legal standards, thereby increasing the democratic control of government. This is particularly significant for those forest problems concerning public goods, such as environmental protection and recreation, or wherever there is neither a direct client nor a contact person available.

The Environmental Information Law passed in Germany in 1994 created a comprehensive information tool for the general public for the first time. The Environmental Information Law guarantees public access to environmental information available in administration, which naturally also includes the forest. However, public access is regulated in many ways and is considerably limited (Schmidt & Müller 1995).

The relevant information must already be available from the authorities. As long as the federal or state administration bodies are still in the process of drafting a new bill of legislation, they are not obliged to provide information about it. Nor does any person have the right to view the administrative files

directly; the authorities may choose the form in which they present their information. For the purpose of protecting public goods (in the interest of public welfare) and private interests (trade and industrial secrets, e.g., or data on current administrative proceedings), information is to be limited.

Although these new, active information tools are subject to considerable limitations, they provide the general public with a greater opportunity to participate in enforcing all forest-related programs. The future use of these tools will determine whether "active public information" will become an instrument which effectively and democratically supplements the presently predominantly "passive information" available to the public in the form of reports, public relations work and advisory services.

7.6. Further Forest Policy Research

Information, which is the central factor of informational instruments, as apparent from the term, is a very general social factor that has become the subject of research in many different fields. Forest policy research cannot manage without these findings. However, they require a dual transformation before they can be evaluated. In the first place, only the information references made to the political process are of interest in forest policy. All findings regarding information in other fields diverge from elaborating forest policy into other realms of society. In order for them to be relevant, the findings in the fields of psychology, sociology, journalism, education, etc., need to enable direct conclusions on the role of information in political conflict regulation. The lack of a political reference in theoretical approaches in the above-mentioned fields is not only a formal deficit. It also implies that psychology or pedagogy, e.g., might be able to resolve the problems of forestry by taking suitable psychological or pedagogical measures to make the critics of forestry rethink their positions. Such studies are gladly referred to by those in the practical field, because they would seem to be conciliatory and awaken the hope that issues can be resolved without any hardline political conflict. However this is exactly how these studies can mask forest policy instead of contributing to its scholarly analysis. Secondly, a connection between forestry and the forest has to be established in order for direct findings on forest policy to be made. The bridge from the field of study to the actual subject of research is often difficult to establish. The importance of the forest as a natural environment plays a special role, since nature is more likely to become a topic of study in psychology, sociology, journalism or education, than forestry or the forest.

In the forest sector there are only a few scholarly studies on the use of information in the form of consulting, in contrast to the agricultural sector (Albrecht et al. 1987). Recently Pregernig (1999) has elaborated a multi-faceted explanatory model for the implementation of scholarly findings in the practical field, in which the person receiving the consulting actively selects from the information according to 1) the available information; 2) internal preconditions, such as findings and attitudes; and 3) external conditions, such as other persons or standards. The innovative process, particularly important in forest policy, is examined by a study based on a concept by Rogers (1995). Using the example of overcoming new types of forest damage, this approach proved its significance in a case study on Austrian forestry. However, further studies are necessary for a conclusion to be made on the average case of forest consulting.

Case studies are available on forest education, in particular in the form of dissertations (Slotosch 1996), and publications which are more strongly oriented along the lines of individual processes (Düring 1991; Seewald 1993). The foremost psychological and pedagogical issues do not render it necessary to draw a line between forest education and environmental education, including diverse scholarly studies by Kalf (1997), Kron (1996) and Hellberg-Rode (1991). Although valuable information can be found in the available studies, it only marginally pertains to the significance of this instrument in forest policy studies.

Public relations work is elaborated in two different manners. On the one hand, most praxeological publications deal with public relations in the forest sector (incl. Bachhofer & Freidhager 1995; Centrale Marketinggesellschaft o.D., Dörbecker et al. 1997; Halder 1992). They give concrete recommendations on public relations measures, however scientific proof of their effectiveness is not provided. One of the issues dealt with in these publications is the depiction of public relations as an independent professional activity, which differs from advertising or journalism. On the other hand, journalism deals directly with public relations and has analyzed many individual factors in connection with other fields in the social sciences. A comprehensive and critical theory of public relations has been published by Ronneberger & Rühl (1992), however it has not been yet applied to public relations in the forest sector. In analyzing the individual factors of public relations work in the forest sector, studies prevail on the attitudes of the various stakeholders to forestry and the forest (Pauli 1999). Concerning the forest and nature, studies on environmental awareness, of which De Haan & Kuckartz (1996) provide an overview, are highly informative. Analyses of media reporting are much less common (Holzberger 1995; Nusser 1994;

Zierhofer 1998), and the political influence of public relations work in the forest sector has been studied to an even lesser degree. Using the "stream of consciousness" theory, Suda et al. (1988) illustrate the political effect of information on forestry, as well as the forest. The forest and the natural resource of wood are valued by people; however timber production is often criticized for its destruction of the forest. This logical contradiction in the conscience of the general population reduces public support for forestry. The "stream of consciousness" theory attempts to depict the public information processes amongst the individual stakeholders, evaluate the effects on the scope of action in forest policy making, and develop strategies for public relations work in the forest sector. A review of the current journalistic studies on the media and the political process (Jarren et al. 1996) show how promising this field of research is.

In contrast to the great deal of attention, which is given to public relations work in the scholarly journals of the individual countries of Europe, only a few scholarly publications with an emphasis on public relations work in the forest sector can be found in English. Political information issues are more likely to be dealt with in the scope of forest inventories (Päivinen et al. 1995).

CHAPTER 8

ECONOMIC INSTRUMENTS

Political and economic processes are directly interlinked in the political regulation of the forest industry. The profitability of forestry enterprises is a key factor in forest policy. At the same time, policy making also directly affects economics, for instance by providing financial support or levying taxes.

Economic instruments are all those political means of intervention which formally influence social or economic action through the exchange of "economic values."

Politics makes direct use of economic values to regulate action taken by forest owners, as well as the general public. These economic values usually constitute money, but services (such as maintenance) and goods can also be involved (Thieme 1995). The exchange of these values is subject to comprehensive regulation in the market economy. These economic processes only become economic instruments if they immediately serve forest policy objectives. Maximizing economic efficiency is not the focus of their political implementation. Instead, policy making uses the highly effective nature of economic mechanisms to pursue public objectives in general.

In Germany forest policy is also obliged to follow the regulatory concept of a the social market economy. The general political framework should thus ensure that the market economy functions properly. Forest policy also counts on forestry objectives to be fulfilled via self-regulation of the market. When this fails, however, forest policy intervenes, preferably by providing financial support. In addition, the state's need for resources is closely connected to business. The state secures its continued existence by levying taxes. It takes for granted the unavoidable intervention in business generated by mandatory taxes and fiscal charges, yet it attempts to make use of producers' and consumers' defensive maneuvers to achieve its own political goals.

On an informal level, economic instruments are very significant, since economic processes can be universally applied by politicians with a high degree of efficiency to increase their own power and realize their self-interests. Regarding the wide-scoped business activities of the state in forestry, the reason for them is not the requirements of the market economy, but the informal influence that politics can have by using economic instruments. The elaboration of the political use of self-regulation in the market economy, as well as financial support, extension services and taxes, thus applies to both formal and informal processes.

8.1. Self-Regulation of the Market Economy

8.1.1. Maximized Efficiency of the Forest Sector in the Market Economy

Forestry production including the provision of forest goods and services, such as timber, hunting, recreation and protection, are highly regulated by the market economy in Germany. The market exchange of forest products is a form a regulation, which plays a major role in solving conflicts of interest regarding the resources of the forest, and which indirectly depends on the general political framework. **From a political perspective, the performance of the economy as a whole is very significant for achieving the goals of sustainable forestry and timber supply. In this sense, politics views business as an "indirect economic instrument."** This political perspective should neither limit independent business, nor claim primacy for politics. However this would clearly indicate that forest policymakers assess the good of business according to their own values, rather than solely according to economic factors.

The market economy system of the forest industry is geared towards regulating the use of forests with the goal of highest efficiency according to the economic allocation model (Weimann 1996). The short supply of production factors (soil, manpower, capital and advance payments or deliveries) are employed using the technical production process that results in the economically optimum volume of forest products using the least possible production factors. This target described according to the **Pareto optimum means that the resources are used where they result in the greatest productivity, and goods are consumed where they are of greatest use.** Since helps to avoid wasting scarce resources, the economic allocation model should result in the optimum use of the forest, as a whole. The following analysis deals with the (normative) economic allocation model, from the

perspective of the market economy, in order to point out its importance for politics. **The efficiency performance of the market economy is highly welcome to the forest sector which has made an obligation to serve the welfare of the general public.** Those who benefit will not put up any resistance against the greatest economic use on a whole, as such. However, the economic allocation model leaves open the distribution of benefits among the population. Conflicts regarding distribution also arise in a fully functioning market economy, and these require additional regulation.

The model of the market economy has been characterized by numerous households and businesses whose actions are primarily determined by privately owned production means (Thieme 1995). Households use decentralized planning to optimize their income and its use. Forestry enterprises plan their production by using production factors and selling goods to make a profit. Markets, which constitute a network of businesses and households, create important regulatory incentives by regulating prices. Changes in price indicate scarceness of production factors or goods. They create incentives for market participants and exert pressure to use the highest efficiency for securing their chance in the market in order not to be forced from it. However, the markets also offer each participant alternatives in terms of production, consumption and jobs.

The degree to which the markets serve as coordinators, steering the forest industry towards optimum utilization on a whole, depends on the market conditions and the price determinants. Germany sets a framework in the form of an economic policy proceeding from an ideal-type market system to enable the market economy to function (Eucken 1990 (first published 1952). Important elements include defining the private right of disposition, sanctions to combat activities reducing competitiveness, regulations for business relations, i.e. the right of codetermination, and regulations for supplying the overall economy with money. The forest industry is based upon this comprehensive regulatory framework of general economic policy, as well as regulations pertaining to its specific branches.

Forestry production is open to the maximization of economic efficiency, in part. **Timber has been traded on the world markets for a long time. Three criteria serve to make wood a classic marketable good: 1) exclusiveness, i.e. someone may be prohibited from consuming it, 2) rivalry, i.e. the good that someone else is consuming cannot be consumed by someone else at the same time, and 3) scarcity as a result of being valued highly (Mantau 1994).** A set of regulations established by policymakers promotes timber markets, including trade customs, categories and sales procedures. However, the

major decisions regarding supply, purchasing and pricing take place without any direct political regulation (in contrast to many agricultural commodities markets). Forest policymakers depend on the market economy to meet the public demand for wood. In Germany, this has been complicated by the sinking profitability of timber production over the past decades (Bergen 1995). The growing globalization of timber markets is increasing competition among roundwood suppliers and forcing the price down. If the state wants to continue relying on the market economy to supply timber, it should not shield the German forest industry with protectionist measures, instead it should trust the innovative capacity of forestry enterprises and give them sufficient leeway by reforming the regulatory instruments (Thoro 1998). According to certain economic findings, forestry enterprises would be forced to produce more efficiently if subjected to market pressure, and they would be able to increase their yields by increasing their market orientation (Brabänder 1992). Even the usual state subsidy, granted in the face of a natural disaster caused by wind damage, may decrease efficiency, since compensation from the state for production risks can make forestry enterprises project low production costs, or save costs by not bothering with preventative measures.

8.1.2. Market Failure of Non-Timber Goods and Services Due to External Effects

Whereas forest policymakers recommend the greatest possible reserve and strictly promote self-regulation of the market to ensure efficient timber production, one cannot rely on self-regulation in the case of many other forest products and services. These **non-timber goods and services**, which are not subject to marketing by rule of their features, include climate protection, water protection, nature and environmental protection or recreational opportunities as public goods (non-exclusive and unrivalled), or common property (non-exclusive, but subject to rivalry) (Glück 1998). **Due to a lack of market economy regulation, there is danger of insufficient supply**, since forestry enterprises have no incentive to offer these products or services, and the demand for free non-timber goods and services is not subject to a price.

In practice, however, a great variety of non-timber goods and services are provided without any market incentive. The reason for this lies in coupled production in the forest sector. Timber production in a forest has both positive and negative effects on other forms of utilization. A forest is suitable for recreation; it is a habitat for animals and plants; it serves as a

carbon sink (storing CO₂); and it affords physical protection. The forest's capacity for the above varies according to the method of timber production (Blum et al. 1996 (1)). Silvicultural methods in Germany specially focus on combining timber production with the other positive effects of forests (Röhrig & Gussone 1990). The economic dimensions of the technological relationship between combined production of marketable and non-marketable forest goods can be demonstrated according to the **"external effects" model** (Weimann 1996). External effects are the positive or adverse effects of business activities on the business activities of others (consumption or production), with these effects being marketed or priced. Because the external effects influence forest utilization regardless of the market, they cannot be regulated by it, with the result that the market regulation of forest utilization remain below optimum. In practice, timber production adheres to markets signals, however the technically interconnected production of non-timber goods and services is so extensive that there is no price regulation due to the lack of market demand. Since the price of timber thus indirectly determines the infrastructural services of recreation and protection, among others, there is no guarantee that the services offered correspond with the economic optimum. **The numerous external effects of forestry production result in market failure of important non-timber goods and services, such as avalanche protection, carbon sinks, nature and environmental protection, recreation, etc.** Forest policymakers have the choice of either including these non-timber goods and services in the markets and reducing the external effects, or directly intervening to regulate the offer of non-marketable goods and services.

The strategy of internalizing external effects has the advantage of improving the overall self-regulatory power of the market increasing its strength in the forest sector. There are various economic models for internalizing external effects which are applicable to the forest industry (Blum et al. 1996 (2)). In practice, their application is confronted with considerable problems pertaining to recording forestry production interconnections, or assessing the costs and benefits of collective forest goods and services, which have only been resolved in part:

- **New marketing incentives are attempting to reintegrate the collective non-timber goods and services directly in the business activities of the forestry enterprises (Mantau 1994). Innovative product concepts and the development of new institutionalized trade relationships are absolutely essential for marketing, since non-timber goods and services will only become marketable through additional new benefits.** In the form of a "forest adventure programme" the unsaleable

infrastructure service of general forest recreation takes on the exclusiveness which attracts consumers willing to pay. New intermediary businesses, such as forest-related environmental agencies or tourist organizations, have to find new market partners for forestry enterprises. However the individual person is not suitable as a direct business partner, due to the excessively high sales expenditures (Mantau 1998). The **instrument of certification** also serves to market environmental factors, such as sustainable forestry or the environmentally compatible resource of timber. Labeling indicates the environmentally-relevant aspects of wood and increases its marketability (Upton & Bass 1996). The new product of certified wood can lend more weight to the issues of nature and environmental protection in forestry and wood processing, and is therefore also being promoted by environmental organizations (Elliot 1999). Forestry enterprises profit from certification as soon as the costs of the new products are covered by the higher returns. The impact on timber and wood product marketing has been low up to the present and remains to be seen for the future (Pajari & Peck 1999; Rametsteiner 2000). Due to business risks, and particularly because of the growing influence of environmental associations, the forestry associations in Germany were initially against certification. As a result of growing pressure from the certification schemes initiated by environmental groups, the forestry associations came forth with their own certification scheme in 1999, the Pan European Forest Certification (German Forestry Council 1999). This procedure aims at maintaining forestry stakeholders' competency to define the ecological standards of forestry and keeping costs low while still prevailing on the markets despite competition with the certification schemes initiated by environmental groups. The actual contribution towards marketing timber will be deciding factor the medium term regarding the significance of certification instruments.

- Improved **allocation of property rights** to forest products can render common non-timber goods and services negotiable between producers and consumers with the aim of achieving compensation payments. Since standardizing the rights of disposition to the previously free benefits of forests involves a large political conflict potential, politicians do not usually dare to improve the preconditions for market negotiations by creating new standards. Such an approach based on environmental liability rights and rendering negotiable the cost of external effects of business benefits, did not go far in Germany,

because the required interventions in the existing property rights would entail too much conflict potential (Endres 1994).

- **State financial support or taxation can give the producers an economic signal concerning the availability of collective non-timber goods and services.** If the financial contributions equal the cost of the external effects according to the concept of social costs (Pigou 1920, cit. according to Blöchlinger & Staehle-Witt 1993; Blum 1996 (2)), they can make up for the lacking price and help to optimize the market economy. Determining the social costs requires that the value of forest infrastructures is a known factor. The numerous scientific assessment procedures follow various perspectives and interests, although they are all geared to at economic analysis (Bergen 1999). Until the present time, their application to forest products has resulted in various values depending on the assessment procedure (Sekot & Schwarzbauer 1995). Apart from the difficulty of determining the social costs, this concept provides the most important economic grounds for **improving forest management** in the market economy by granting subsidies or levying taxes in accordance with the positive or negative external effects.

8.1.3. Regulatory Deficits of the Market Economy in Allocation and Environmental Safeguarding

The lack of optimum allocation of economic values is not considered a deficit according to the concept of the market economy, however it constitutes a significant regulatory deficit in the political utility of the market economy, which has to be politically corrected. This basically involves income redistribution and promoting the owners of small forestry enterprises, for instance. Such measures are politically legitimized by the goal of maintaining a broad scope of forest owners. This objective is not based upon free enterprise, but can be legitimized by the social market economy according to Müller-Armack, which reserves the right to intervene for the purpose of securing political goals while conforming closely as possible to the market economy (Adam 1995). However the market economy has procedures for these measures which ensure that optimizing the efficiency of free enterprise is disrupted as little as possible. The least interfering procedure involves a new and "fairer" definition of the starting capital of businesses and households (Weimann 1996, p. 286). As a result of the high political conflict potential concerning the redistribution of forest property, e.g., this measure is not practically applicable. Despite the much larger interference potential, income transfer through subsidization or taxes

has grown in significance. Control by means of price regulation is common in agriculture, although it can lead to a great loss of efficiency.

In relation to the careful use of natural resources, the market economy also has deficits which are all the more clear, the larger the volume of resources consumed by business activities (Frey et al. 1993). The elaborated processes of internalizing external effects are suitable for including the environmental burden in free market optimization in many areas. However problems still remain unsolved in the present concept of an **environmental market economy**. Especially in the face of threats to the environment, when industry and consumers deny the future burden of environmental destruction resulting from long-term impact, free market regulation cannot succeed, since this would require reasonable (rational) market partners. When politicians recognize the danger better than industry and consumers, they consider it legitimate to make corrections, even if disturbances result in the market economy. Sustainable forest management and the regulated protection of forests are important in forestry. This significantly limits the economic freedom of all those who benefit from forests (German Scientific Advisory Board 1994). Politics cannot be legitimized by the market economy due to the regulations favoring merit goods, meaning those goods which are politically considered necessary for ensuring public welfare. Forest policy should secure the natural goal of sustaining the size and quality of forests as merit goods even when free market optimization presses towards forest exploitation, i.e. forcing shorter rotation periods or higher yield species.

8.2. State Compensation for Adhering to Guidelines

8.2.1. Formal Regulation via Financial Support

Using state compensation, forest policy employs economic values directly for the purpose of regulating the forest industry. According to its regulatory impact, financial support can be differentiated from compensatory payments. **Financial support** is a monetary payment made by the state to private or public enterprises for the purpose of promoting chosen business activities which correspond with state objectives. **Compensatory payments are monetary payments to compensate for burdens resulting from taking action prescribed by the state. Compensatory payments directly link an economic instrument with a regulatory one. Legally they are standardized as damage payments, e.g., for going beyond the social obligations of forest ownership.** In addition, the Bavarian Forest Act (Article 23) prescribes compensatory

payments if obligatory measures have to be taken in protection forests. These instruments have not yet achieved any significance in law enforcement, since public forest administration prefers to solve such problems using financial support. The increasing ecological demands on the forest industry may result in an increase of legal compensatory payments, such as is the case in Nature Protection Law. Compensatory payments facilitate efficient control in comparison to financial support, because regulatory obligations additionally secure the measures taken. A comparison to regulatory instruments without compensatory payment is significant in structuring compensatory payments. In forest law, such standards are the rule for the purpose of safeguarding the public interest in sustainable forestry. They burden the owner with the costs, or prohibit forest conversion. Only in exceptional cases, does the legislator acknowledge that a private owner has been so highly burdened that he should receive compensation. The state makes an effort to grant as little compensation as possible in connection with regulatory demands in order to not the burden the public authorities, nor encroach its margin of political control by means of financial limits.

Financial support measures are entirely justified in forest programs. Basically, the legitimization of this policy to aim towards social and economic objectives is based on the welfare state principle (Klose & Orf 1998, p. 710ff.). Special laws, particularly the Federal Forest Act (§41), and the law pertaining to the common duty of "improving agricultural structure and coastal protection" (revision dated 21-7-1988, Federal Law Gazette 1055), as well as the state forest laws, prescribe generally formulated individual goals of three different kinds. The objectives are as follows: 1) improving the productive structure of all forest functions (utilization, protection and recreation); 2) improving the ownership structure under special consideration of family-owned agroforestry enterprises; and 3) compensation in the face of disasters. This scheme of objectives provides for equal promotion of all forest functions, in principle. However, it still serves the purpose of ensuring that performance-oriented forestry enterprises secure all forest functions. This concept suggests that the economic conditions for timber production should be improved in the hope that this will simultaneously promote the other forest functions.

A framework plan to be stipulated by the parliament, under cooperation of the states, defines purposes, procedures and the scope of support (cf. German Parliamentary documents 13/8435 for 1997 – 2000). In accordance, the following qualify for support: I) silvicultural measures, II) forestry roads, III) forestry mergers, IV) afforestation, and V) measures to combat new

types of forest damage. The state budgetary laws and regulations standardize further details of these measures and supplementary financial support for the special needs of each state, such as grants for forest fire insurance or compensation for damage caused by disasters. As a result, around 100-125 million Euros in subsidies were made available for numerous silvicultural measures over the past years, whereby 60% of the financing is carried by the Republic and 40% by the states in the area of common expenditures around 60-75 million Euros. To cover the damage caused by windfall disasters, the republic and the states support the forest sector with additional financial means in exceptional cases, according to the extent of damage, at a sum of several hundred million Euros. The greater part of regular support is given in the form of loans, interest rate subsidies and statements of guarantee. Standard limits have been set for the individual measures, which constitute up to 85% of the creditable costs. Lump sums simplify cost projection, and additional premiums are designated for owners of afforested land.

The incentive of financial support is used for the purpose of regulating forestry activities of private and public owners of farming and forestry operations, or land owners, whereby forestry mergers receive special support. Communal forestry enterprises may also receive financial support, but not federal forest enterprises. Public forest administration is responsible for providing the support. In states that have a corresponding chamber, such as Lower Saxony, the chamber can be entrusted with this function. For this purpose, administration is bound to follow the standard criteria in the guidelines pertaining to the individual measures. The deciding criteria are the general interests formulated in the programs and the budgetary situation. The flows of financial resources are monitored by means of complicated accounting procedures, and information is provided by the parliamentary statements of account concerning all the subsidies. The process of financial support should help achieve the public goals of the forest sector using financial incentives.

Forestry subsidization policy also takes into consideration the forest-related financial instruments that are provided by the European Union. As expressed by the Forestry Strategy for the European Union (Council Decision 13990/98), the EU does not have a comprehensive mandate for a common forest policy. However, it generally follows the objective of fulfilling the international forest-related obligations made by the member states, and coordinating the impact of the common EU policy areas on forests and the forest industry. The EU's instruments for creating a financial incentive thus press, in particular, towards integration of forestry subsidies in the EU's rural development program and its environmental initiatives. According to the

subsidiarity principle, the countries develop their own promotion programs which may be eligible for co-financing from the EU depending on whether their goals correspond with those of the EU. In view of the financial support provided by the EU, forestry is included in the regional programs for rural development. On the one hand, this broadens the long-term focus of EU support for afforestation of agricultural lands through numerous measures that support sustainable forest management. On the other hand, this leads to direct competition between forestry and agriculture for financing. Economizing measures introduced by the countries pertaining to their forestry budgets indirectly increase the significance of forest-related incentives offered by the EU.

8.2.2. Deficits in the Problem-Solving Potential of Financial Support

The regulatory impact of financial support is severely weakened by deficits in the formal programs and their enforcement.

- **Coordination Deficits Regarding Maximum Efficiency of the Market Economy**

Subsidies paid by the state to individual business operations distort the self-regulation of the market economy and reduce the efficiency of the forest industry. Subsidies are only compatible with the allocative efficiency of the market economy in exceptional cases. Forestry subsidization programs generally focus on improving the economic framework, however in practice they serve a silvicultural purpose whose impact on the economy is not entirely clear. The overall assumption that timber production in a forestry enterprise also secures the other forest functions in the interest of the general public does not make it compatible with the market economy. This also applies, if co-production actually takes place. In as far as recreational or protective functions are the free byproducts of sustainable timber production, subsidies should not be granted for them in the market economy. This would only be conform with allocative efficiency in the market economy, if increased costs or reduced proceeds ensue for the forestry enterprise, and if consumers are willing to pay for the recreational or protective services. Compatibility with the market economy can only be evaluated according to each individual case by means of an economic assessment which supplements the silvicultural criteria (Salka 2000). Since such market compatibility assessments (Nieder-Eichholz 1995) are generally not conducted in practice, it can be assumed that the majority of subsidies

granted to forestry reduce the economic efficiency maximization of the forest industry.

In addition, important subsidy target goals are not compatible with efficiency maximization. Particularly the subsidization of family-owned mixed farming and forestry operations and support for small, private forest owners are political (allocation) goals which counteract optimizing the structural development of forestry according to efficiency criteria, so that only the most competitive operations can survive. Subsidizing mergers also serves more towards maintaining a broad-scoped ownership structure, rather than being in keeping with the demands of free enterprise. Nor is the comprehensive financial support granted to forestry enterprises, which have suffered a windfall disaster, necessary for economic efficiency. On the contrary, this would mean the general budget is compensating the extraordinary costs incurred to the forest sector according to prescribed allocation goals. The measures for subsidizing sustainable forest management are also partially compatible with optimizing free enterprise. On the whole, sustainable forest management strives towards higher standards that are politically legitimate, however this may burden free enterprise as merit wants. As a result the compatibility of forestry subsidization with the maximization of economic efficiency is somewhat lacking. The distortion would be greater, if there were an increase in forestry subsidization which currently amounts to around 10% of the gross value of forestry production.

- **Orientation to Measures Instead of Goals**

The concept of regulation through financial support calls for an orientation to well-defined goals. Only when the state has defined clear goals for determining the benefits of the support measure, can the economic control mechanism contribute towards efficiency. If there are defined goals, then the respective forestry enterprise and the state can weigh the costs and benefits in comparison to the necessary financial means. Improving efficiency through subsidization requires competition in fulfilling the targets set by the state. The state needs the non-timber goods and services that result from these goals, such as recreational and protective services, and forestry enterprises fulfill this demand by means of innovative and cost-efficient service offers (Scientific Advisory Board of the Federal Ministry of Nutrition, Agriculture and Forests 1994, p. 54; Federal Office for Environment, Forest and Landscape 1997).

Such objectives hardly serve to help the programs and their enforcement take shape, since the programs only formulate general objectives whose relationship to specific measures remains unclear. In terms of enforcement, the deciding factor is whether or not the individual criteria of the measures are fulfilled, whereas the main objective of the supported project is disregarded. The promotion of certain measures creates an incentive to conduct forestry management in the manner prescribed by the state. By linking enforcement and control to the fulfillment of certain measures, the state forgoes the opportunity to monitor or optimize the impact of support on achieving public forest objectives (Zimmermann et al. 1993, p. 109). In addition, the prescribed measures limit the innovative steps taken by those receiving support. The low degree of orientation to objectives weakens the legitimization and efficiency of forestry subsidization.

- **Profit-Taking by Those Receiving Subsidies**

The efficiency of financial support depends upon how much it actually influences forestry enterprises. The influence is reduced when financial incentives are offered for action which the grant recipient would have taken out of self-interest, even without any financial incentive. If a forestry enterprise can finance a logging road it needs to facilitate logging, it can nevertheless benefit from state subsidization. However the state has not achieved its objective by granting this subsidy, because the logging road would have been built regardless. Since so-called "cashing in on profits" is connected with actual interests of the grant recipient, which only partly have to do with economic calculation, the concept goes beyond the postulation of a "*homo oeconomicus*" in economic theory (Scharpf 1983). Even when someone takes ecological measures for silvicultural purposes that do not pay off economically, there is a profit-taking effect as soon as this voluntary action is financially supported by the state. The extent of cashing in on profits in the forestry is unknown. However, analyses by Kurki (1991) have indicated considerable profit-taking with regard to subsidies for stand-tending operations. The danger of profit-taking increases according to how closely the subsidization measure is related to timber production, since the market also gives forestry enterprises incentives to improve their production. Forestry co-production also makes it more difficult to evaluate profit-taking effects. To avoid profit-taking effects, the state or the subsidization program should have a very good knowledge of the interests of the grant applicant. Since the comprehensive evaluation of individual cases is costly in enforcement, as well as going to the limits of expert analysis, profit-taking

effects are unavoidable to a certain extent, despite all the general regulations and subsidization rates.

8.2.3. Informal Use of State Compensation

Informal strategies play an important role in managing financial means. In practice, an informal orientation forces the formal concept of subsidization into the background, i.e. the contribution to achieving public goals, efficiency of applying the means, and compatibility with the market economy all lose importance. In contrast, the informal advantages, which the applicants expect from being granted financial support, are increasingly significant. The informal factors explain why financial support, which is critically evaluated for the most part in keeping with the concept of the market economy, has nevertheless developed into an instrument which is widely implemented and valued by policymakers. Since politicians can exert a direct influence by granting subsidies, they are also sceptical towards self-regulation of the market using other instruments. Politicians may value the market's self-regulatory potential, yet if they are threatened with a loss of influence, they will informally defend subsidization and dispute the possibility of market self-regulation, even if this were to be more efficient.

- **Provision of External Support**

The allocation of financial resources is an important state instrument for providing general support to recipients as well as establishing support in the face of certain conflicts (Krott 1986 (2)). Nevertheless, the widespread informal strategy of securing votes by granting subsidies shortly before elections does not play a major role in agriculture and forestry. Since sector-related electorate is so marginal, administration and interest groups make an effort to exclude subsidies from any uncertainty or possible control by the electorate (Beusmann & Hagedorn 1983, p. 59). The determining factor is the effort made by politicians and special administration to secure the support of forest owners, in particular, through annually available subsidization. Preferential treatment of financial support has advantages for both sides. The state creates allies, and the associations or their clients can get back a portion of what they have had to pay in taxes.

Financial support can also ease conflicts which have arisen as a result of new regulatory instruments. For instance, forest owners in several states have had the cost of forest fire insurance supplemented by subsidies to cover the burden of their having to grant forest access for recreational purposes.

Regulatory requirements in forests with special public functions, such as protection or recreation forests, are more likely to be accepted by the owners when they are linked with financial support. The concept of compensation makes a formal rule of the informally widespread mode of conflict alleviation through financial support. However, due to its binding effect, it allows the state and the individual associations less leeway for negotiation in conflict alleviation than would be the case with informally granted financial support.

The growing acceptance generated by financial support also increases the enforcement potential of forest administration. The chance of being granted a subsidy is an incentive for forest owners to accept advisory services. Through advisory services, administration can influence the efficient use of financial support and simultaneously compiles data for the purpose of monitoring (Krott & Riedel 1995). Without the incentive of financial means, forest administration would have difficulty approaching forest owners, and the synergy between financial incentives, increased efficiency through advisory services and increased monitoring information would not come into being.

- **Financial Support as an Administrative Resource**

Whereas the financial means for forestry subsidies burden the budget from an economic perspective, these means constitute a substantial increase of financial resources for forest administration. The size of a budget and its development codetermine the potential force and influence of any special administration body (Frey 1981). The expertise required to grant subsidies gives forest experts margin for action in contrast to enforcement via regulatory instruments which is limited by legal stipulations and administrative law. Informally, all special administration bodies thus urge budget maximization (Niskanen 1971). Forest administration also informally promotes the broadest base of forestry subsidization in its self-interest.

- **Exhausting the Budget**

Administration is under informal pressure to exhaust the financial means available in its annual budget. On the one hand, this informal pressure is based upon the formal difficulty of transferring financial means from one year to the next and saving up financial reserves. If the financial means are not spent, the administrative unit may lose them. On the other hand, there is the basic problem of political control in the background. The annual

allotment of financial means is one of the politicians' few opportunities to influence administration, the effect of which is diminished by administration's own financial reserves. In addition, the performance of special administration bodies is difficult to measure in terms of targets. The volume of implemented (financial) means is thus considered indicative of active administration bodies. An special administration body, which is not capable of exhausting its budget, either creates the political impression that it has not optimally fulfilled its functions, or that it could fulfill them just as well with less financial means. In both cases it would be threatened with budget cuts involving a loss of resources and potential for action.

The informal pressure to fully utilize financial aid forces the subsidization requirements to be lowered to a standard acceptable for grant applicants. Since not enough forest owners are willing to apply for subsidies with strict standards, such programs are not established by forest administration, although they might be highly efficient. Granting of subsidies is easier for administration in the framework of subsidization programs that conform with the applicants' interests, e.g. by means of high subsidy rates that only require a small share of proprietary interest. Lump sums even enable the owners to profit from state subsidies through their own work. The formally undesired profit-taking effect is informally targeted to facilitate implementation of subsidies.

- **Incremental Negotiation of Financial Support**

The fact that those involved – politicians, special administration bodies, applicants and their associations – all advocate financial support, leads to substantial allocation conflicts in the course of setting up budgets and programs. These conflicts are only dealt with to a very minor degree according to the formal concept of objectives and the corresponding assessment of financial needs. More important is the incremental rule that uses the budget of the previous year as the benchmark for the next budget allocation (Peters 1995). Informally, the entire budget of subsidy funds is not available for disposition, instead there are only minor changes made in the previous allocation. This orientation creates substantial relief. For instance, the negotiations in the subsidy planning committee in the scope of the common functions of federal and state representatives, take for granted that each state will receive approximately the same share as it did in the previous year. Any change, whether it be a reduction or an increase, it requires extensive argumentation and political lobbying. Those involved hope that the incremental strategy provides them with a low-risk, well-balanced

solution despite very patchy information on the power structure, since the compromise negotiated the previous year promises to be accepted in the following year, as well.

The informally predominant orientation to the status quo in budget allocation contrasts with setting new focal points and reducing existing subsidy programs. Additional posts can rarely be funded by budget reallocations; as a rule, either budget increases are required, or new budgets have to be allocated. Incremental conflict-solving forces subsidization budget increases. In this sense the reform incentives, which aim to regulate subsidization by setting clear goals and performance agreements based on the concept of new public management, are drawing on an important informal mechanism. The success of this new line of orientation will depend on whether it can develop sufficient political clout for comprehensive targets to be set up wherever strategies are still lacking (German Federal Office for Environment, Forest and Landscape 1997).

8.3. Support via State Extension Services

From financial support by the state for private forestry, as well as advisory services, it is only a small step to forest extension services for private forest owners. Public forest administration bodies have actively offered diverse extension services for a long time, and they take over tasks, such as business planning, organization, forestry work and timber sales support, to varying degrees (Abel 1996). Extension services are provided mainly for municipal forests and forestry cooperatives, as well as small-scale private forests. Several state forest acts have standardized extension services for municipal forests in the form of a separate mandate given to public forest administration. In addition, the public forest administration bodies also take over maintenance work related to landscape and environmental protection, e.g. maintenance of hedgerows, meadows or specific biotopes.

By providing extension services, public forest administration is, in effect, conducting its own forestry enterprise. According to the basic law code, the state is only permitted to conduct such activities in exceptional cases which fulfill a public function (Ronellenfisch 1996). Forest extension services provided by the state are not bound to be commercially profitable for the public forest administration body. In contrast, along with advisory services and financial support, they should serve public goals, particularly the promotion of small privately owned forests and securing of the protective and recreational functions of the forest. Nevertheless, conducting its own

business activities requires even better reasons than subsidies do, since private business activities are usually conducted in the scope of the market economy. It is prohibited to broaden forest extension services to include activities that forest owners can conduct themselves in the frame their own business activities in the market economy. This limitation has caused much difficulty in practice, since there isn't a precise border between the business objectives of the owners and forest extension services, i.e. forest management planning or sales support. The standardization of forest extension services is underway in compliance with the Forest Act and the administrative guidelines of the states. The comprehensive extension service mandate, particularly concerning municipal forests, is criticized by representatives of the private industry with reference to the problem of legal limits. The controversial political debate, concerning the state forest as well as its commercial and forest policy activities, is aimed at defining public forestry tasks to legitimize and limit state activities in the forest industry (Helmstädter et al. 1993; Volz 1994; Borchers 1996; Becher 1997).

The tense relations between state activities and maximizing efficiency in accordance with the market economy, or whatever the owner's will may be, is even more difficult with regard to state extension services. Forest extension services conducted by the state have an even stronger influence on the owner than advisory services or financial support may. By conducting forestry work in private and municipal forests, the state directly fulfills public goals. However this runs the risk of infringing on the business owner's responsibilities which might weaken the market economy on the medium-term.

Regardless of such regulatory risks, the general business operations of the state, and those in forestry in particular, amount to a considerable extent. The reason for this can be seen in informal factors which compel the state to take over certain business activities. Without being able to delve more deeply into the informal development of state business activities at this point, three informal mechanisms will be pointed out, which play a role in forest extension services. First of all, the high efficiency of forest extension services makes this an informally attractive instrument of public forest administration, because it enables formal and informal goals of forest administration to be directly implemented in municipal and private forest holdings. Secondly, informal growth targets also force administration into conducting business activities. Thirdly, in the scope of the regulatory concept, private owners are informally interested only in the profit-making activities of forest extension services. As demonstrated by advisory services, those services that are not in high demand are not offered by private

businesses. Administration is right in fearing a critical reorientation of forest extension services from the perspective of common welfare, if state extension services were to be dropped entirely.

8.4. Mandatory State Taxes

Mandatory taxes constitute the opposite of state financial support. They serve mainly to finance the state budget. However, since financial transfer can change the behavior of tax payers, it is comprehensively employed for the purpose of political regulation.

8.4.1. State Tax Revenue

Taxation is the transfer of economic values (money as a rule) to the state by natural or juristic persons, who are obligated to do so, without any special service provided in return. In the form of taxes, people hand over financial resources to the state, giving the state the financial power of action (Kirchhof 1990). The state is to utilize this financial power exclusively for the purpose of fulfilling its public functions. The allocation of tax revenue independent, of the kind of tax money it derived from, should ensure the leeway required to optimally fulfill public tasks. The actual services provided in return for mandatory state taxes thus constitute all the state's activities, including forest policy regulation. Legitimization of taxation is mainly based upon the taxes historically levied by the state (formerly the kingdom) for the purpose of financing community services (Schmolders & Hansmeyer 1980). In the forest sector, such state services are presumably much higher than the taxes paid by the forest industry. Whereas the taxpayers cannot receive more from the state than they pay in taxes, this ratio is more favorable in certain sectors. Nevertheless, the modern state is not based upon voluntary taxation in the forest sector, nor is it so on the whole. In contrast, the state secures its main source of revenue by means of a tax monopoly with mandatory taxation (Matzner 1982). Only the state has the legal right to levy mandatory taxes in the form of monetary values from private persons.

The parliament regulates taxation. It regulates state revenue by law, and with the annual budgets it ensures the financial revenue is paid back to taxpaying citizens in the form of state services. The basic law code requires all revenues and expenditures to be comprehensively recorded, to ensure parliamentary control of government and administration. Taxes can be levied

on any business activity, particularly a running income, whereby mainly the monetary flows between private households and business enterprises are affected (Grossekettler 1995). The basic law code standardizes a very broad framework for levying taxes. Based upon this, the parliaments have developed comprehensive legal terms of taxation. These do not follow one uniform concept, instead they are compiled from diverse regulations. They have developed historically over the course of the political process and are highly complex, even in well-defined sectors such as agriculture and forestry (Kroth 1960 & 1980; Althoefer et al. 1993). Forestry activities are subject to a great number of taxes. These mainly comprise income tax, property tax, inheritance tax or gift tax, as well as sales tax (Möhring 1994). All the different kinds of taxes cannot be dealt with individually at this point; instead special attention is called to the theory of business taxation (Köhne & Wesche 1995; Althoefer et al. 1987). Nevertheless, central political regulation processes shall be used to elaborate the tax system.

Whereas the formal extent of taxation is determined by decisions made through parliamentary consensus and is geared to public functions, taxation is informally a field of great political conflict, in which important factors have the effect of increasing state revenue, as well as defining the limits of state control.

- Tax revenue the power of the state are historically interrelated in the form of a self-expanding regulatory cycle (Matzner 1982). Only a strong central state power, which has the support of military forces, is capable of levying taxes in the face of civil or social resistance. On the other hand, by means of levying taxes, the state gains the potential to increase its power and levy new taxes. This historically proven link clearly indicates that taxes do not only involve public consensus with regard to public tasks and the financing thereof. Informally, taxes also safeguard state resources, in as far as the state is able to assert its authority. The relatively low percentage of taxes paid by the forest industry thus also indicates their successful rejection of attempts by the state to increase taxation.
- Since the state levies taxes on business proceeds, the total of proceeds determine the maximum tax revenue. It therefore makes sense for the tax authorities to avoid hindering the efficiency of the market economy, in order to achieve higher tax revenue on the basis of higher production rates. The tax revenue in Germany, mainly from production factors and income tax, has the effect of hindering growth in the above sense. This has repeatedly been subjected to tax reforms (Grossekettler

1995). The absolute taxation limits for business proceeds presumably play a decisive role in the low rate of tax revenue from the forest industry, since the potential yield of this sector is known to be very low in comparison to the forest and landed property assets.

- Government and administration informally promote the growth of their own resources. The tendency of administration to grow has already been elaborated several times, however government also requires enormous, short-term funds independent of its programs (Rose & Karan 1983). Government gives preference to ease the financial strain by means of economic growth or granting credits, as a last resort. Taxes are only raised if both of these financial resources prove insufficient. The political opposition is only opposed to raising taxes in its role as the opposition. As soon as it becomes active in government, it has to finance the state which forces it to increase revenue by raising taxes and public-sector borrowing. The growth rate tendency of the public sector means that the pressure on the forest sector to make proceeds will not decrease.
- Depending on their tendency, the various political ideologies prepare the grounds for increasing or reducing taxes. The social democratic models tend to depend on high tax revenue to increase public services. The liberal and conservative concepts consider high taxes to constitute a threat to business. In the forest policy discussion pertaining to deregulation and reduction of state activities in forestry, these positions are reflected when exceedingly high tax burdens, due to subsidized public forest administration, are criticized by financial politicians. In times when funds are lacking in state budgets, private business concepts are more likely to be implemented than concepts involving tax money to support sustainable forest management and promote the protective and recreational functions of state forests.

8.4.2. Taxation as a Private Compulsory Levy

For taxpayers, taxes are compulsory levies that reduce their buying power. The duty to pay taxes arises from being the citizen of a state and benefiting from the services it provides, among others. According to the principle of common interest, a state is to be financed by all its taxpayers, and not solely by individual groups (Kirchhof 1995). As a result, practically all those persons, who benefit from forests, are obliged to pay taxes. However the tax burden is not equally distributed among the entire population of a state,

instead it is in relation to the private finances of each individual. Through taxation, the state has a part in private business. This concept makes it possible for taxes to be regulated in conjunction with the protection of private property, which would originally seem to contradict the idea of mandatory taxes. The state protects private property and thus secures an important precondition for private business enterprise. This decision in favor of private business means forgoing state control of business assets, and only leaves the state the option of financing its own activities by taxing the private business sector which it protects in turn by guaranteeing private property ownership.

The concept of financing the state protection of private property with tax money legitimizes the basic compatibility of mandatory taxes and guaranteed private ownership. However it also limits the amount of taxes. Taxes should only skim off the proceeds from private property ownership, to the extent that it is still worthwhile to own and use private property, otherwise the goal of safeguarding private enterprise cannot be attained. Taxes should not jeopardize a sufficient annual income from capital and labor. The specific concept for the forest sector is politically founded by these taxation limits. They indicate the special circumstances of forestry production, which need to be taken into consideration when formulating the basis for tax assessment and the tax bracket, to ensure that taxes do not pose a threat to private forest industry.

As special circumstances, Kroth (1980) lists, among others, the identical nature of the capital good of "timber growing stock" and the main product of "timber;" the long-term production period; the time delay between expenditures and returns; the high capital investment; the low capital interest and the great difficulty of valuing the most important business capital in the form of the timber growing stock. The resulting special regulations for forestry taxation involve, among others, income tax, where profits are calculated based on the profits of the timber harvest instead of the usual method of comparing business capital at the beginning and the end of the fiscal year. The timber growing stock is not taken into consideration in this method. For any utilization over and above sustainable timber harvest due to natural disasters, e.g. windfall calamities, this profit and loss accounting results in too heavy a tax burden, since the loss of timber stands is accounted for. Tax law also allows special regulations for the forest industry in this concern, and has set a lower rate for extraordinary income. There are also important special regulations regarding property taxes and inheritance or gift tax. In contrast to the real market value, these are calculated on the basis of an "assessed value" which is determined according to the sustainable net

profits. This procedure takes into account that the high market value is in contrast to a far lower earning power from which the taxes have to be paid.

The special regulations elaborated in the above examples are meant to improve the formally required coordination of taxes with the earning power of the forest sector. However they also show how this increases the complexity of tax law. As a politically important consequence, the margin for informal negotiation simultaneously increases enabling the taxpayers and their interest groups to focus on keeping taxes as low as possible. In this manner, special forestry regulations exclude the high value of the timber growing stock from direct taxation which gives preference to the resulting extraordinary income, in part. By means of special fiscal regulations, forest owner interest groups have apparently succeeded in increasing the private profitability of forest property, particularly by increasing the growing stock in forests. Prior to the forest owners' success, their interest groups were intensively engaged in political work, whereby fiscal policy was considered one of their most important task fields.

The tax-related activities of the associations adhere to the logic of power, this specifically being a rent-seeking process (Grossekettler 1995). The associations struggle to achieve special advantages, such as tax relief or subsidies, for their limited field of clients. On the other hand, it is less profitable for them to build up resistance against special advantages which have been granted to other groups. Equal engagement would also be called for here, although no direct advantages are to be had for their own group. Taxpayers also only have little information on how the tax system distributes burdens or special advantages. It is not worthwhile for the taxpayer to put up resistance against the special advantages granted to certain groups, since any relief that might be achieved would not be noticeable to the individual. The political influence of the associations results in tax relief for certain groups increasing taxes for the general public to secure the required state finances. This informal strategy creates advantages for forestry, and particularly forest owners, but it burdens all taxpayers, in general.

Taxpayers put up a substantial informal resistance to mandatory taxation. Taxpaying morals also influence the willingness to pay taxes. In the German-speaking countries, where taxes were historically seen as a contribution to the state, taxpaying morals are considered higher than in the countries of the Romance languages, where the tradition of taxes as a tribute to Rome is still evident (Schmolders & Hansmeyer 1980). However, the technical structure of the tax system would seem to have more effect than the taxpaying moral. A broad-scoped tax base with low tax rates provides less

cause for resistance than high tax rates for a few limited activities. General taxes, such as income and sales taxes, leave less alternatives for taxpayers than special taxes. The German tax system makes use of this access advantage in that around 75% of its tax revenue comes from (general) income and sales taxes.

8.4.3. Regulatory Taxation

The forest owner can react to the taxation of certain business activities by adapting in order to reduce those activities and the taxation thereof. Whenever the state intends to induce this change of behavior, this is called regulatory taxation (Frey 1981). Regulatory taxes change prices thus creating incentives for investments, exports, business relocation in underdeveloped regions, improved environmental performance or reduction of environmentally harmful emissions or production methods, e.g.

Regulatory taxes combine state financing with other political objectives for the development of the forest sector. Although this is not specifically provided for in the basic law code, such an interconnection is now considered permissible. However, the distinguishing factor of taxes has to be maintained, i.e. the revenue has to exclusively serve towards financing the state, and it should not be so high that the specific activity is entirely discontinued and the source of revenue dries up. In addition to fiscal competency, the legislator needs to have practical competency in the sector where norms for regulatory taxation are being established. This way the state can only implement regulatory taxes in the forest industry within the scope of its own (very limited) forestry competency.

Concerning regulatory taxation, the same dangers apply to its compatibility with maximization of efficiency in the free market as do to state subsidies. Only in exceptional cases do fiscal incentives improve the efficiency of the market economy. Tax relief always serves the business sector concerned, however it does not increase the state economic performance, as a rule. The current taxation of large forestry enterprises provides an incentive to establish forests with a rich inventory of growing stock and longer rotation periods (Möhring 1995), which simultaneously promotes the objectives of nature protection and recreation. Such contributions to merit wants do justify the regulatory effect which, however, still may not be in keeping with an efficient state economic performance. Tax relief is also provided for small private forest holdings, whose promotion is likewise a merit want rather than an economic priority.

The effect of regulatory taxation also depends on the reactions of the businesses enterprises, as well as the consumers. These reactions are diverse and often indirect, which makes them difficult to record or predict for the purpose of devising the tax base and the tax rate. For instance, the tax burden can be transferred to the client when the market is strong without any change in buying behavior. The introduction of an environmental tax for consumption of energy that burdens the environment is an example of the difficulties encountered in regulatory taxation. The basic idea here is to reduce consumption of environmentally incompatible energy sources by increasing the taxes on them, and to decrease pension scheme contributions as a form of financial compensation for the business. The incentive has a variable effect depending on the production-cost structure. Agriculture and forestry are particularly affected by the increase in energy costs, since the compensation they receive through reduced pension scheme contributions is low and depends on the limited number of persons they employ (Hillebrand 1999). In addition to the technical uncertainty of the impact, there are the lobbying activities of business representatives who have succeeded in achieving exemptions for those operations that consume a lot of energy. In as far as this goes, it should be remarked that regulatory taxation poses a substantial difficulty as an tool for incentive, and the resistance of corresponding interests groups can additionally limit the political leeway. An optimum structure for achieving regulatory impact is difficult to find as a rule, so that the concept of regulatory taxation often serves to legitimize new kinds of taxes. Forestry taxes do not have a comprehensive technical concept of regulatory taxation. Instead the incentives for providing nature protection and recreational functions serve as the basis of special fiscal regulations, which the corresponding businesses hope will lead to tax relief.

8.5. Further Forest Policy Research

In complete contrast to the attention given to the economic processes in forest policy making, forest policy studies rarely attempt to analyze the economic instruments. The deficit in this area of policy research is due to the strong position of economic research in the forest sector, on the one hand, and the strong position of business and economics, on the other hand. The principle of secrecy applies to important economic decision making in practice. The decision-makers deter from disclosing everything and, because of their powerful position, they are able to avoid becoming the subject of political studies. The more often forest policy research delves into the field of financial decision making, the more often it is confronted with closed doors. These limits are far less applicable to economic studies, because they

are usually not interested in those decisions based on power, rather in the economic processes of an ideal world of rationally behaving stakeholders.

The success of economic research, itself, also hinders policy researchers' access to the subject of research, because the highly developed theories in political economics and business administration can explain the essential characteristics of economic instruments when they are applied to forestry. The field of political economics includes the study areas of "political-economic policy," which implies that it also deals with political issues. Forest policy research is therefore always inclined to examine the economic instruments according to an economic approach. Many significant findings have been thus made, such as Bergen (1993), however the power processes, which are particularly important in policy research, are mainly excluded from analysis. Reference to the numerous existing studies on subsidies and taxes in forest economics does not help further, because these analyses also exclude those issues relating to power, which are interesting for policy studies on account of their approach.

Most recently, forest economic studies have attempted via new approaches beyond that of neoclassic economics, e.g., institutional economics, to delve more deeply into the area of policy analysis (Schmidt 1999). The well-developed concept of the "New Political Economy" (Frey 1981) would also be helpful in this respect, however it has not yet been taken up by forest economists and comprehensively applied to forestry. Regarding the findings on policy-determining power issues, the results of these analyses will not be satisfactory, as seen from past experience using general institutional economics. The search for fair coordination processes promoting social equilibrium (comparable with the political-economic goal of achieving maximum national economic efficiency) constitutes the focus of attention (Von Wulffen 1996). The concept of social equilibrium (or maximum efficiency) blocks the view of the power processes of the political players who are interested in asserting their interests, and not in achieving an equilibrium or maximum efficiency.

In summary, it is recommended that economic analyses be used as sources for further forest policy research, however one should be aware that the existing lack of findings on economic power processes is the result of the research approach, which does not reflect reality. Information on the power processes in the application of economic instruments is best provided by analyses from the fields of environmental policy or environmental economics (Wicke 1993; Frey et al. 1993), and political studies of economic policy (Adam 1995) which, however do not supply any findings on the field

of forest policy. In the forest sector, reference should be made to the study by Weiss (1999) on protective forest policy in Austria with reference to the political dimension of economic instruments, the analysis of the international development of certification by Elliott (1999), and the analysis of forestry subsidization policy in Slovakia by Salka (2000).

The English-language literature available in Europe comprises a wealth of economic analyses of economic instruments, however political issues are hardly ever the subject of research. The power process evolving due to the economic instruments has not been made a topic of study in accordance with the tradition of economic theory. Recently, two collections of articles have chosen to take a more open approach to the political aspects, while maintaining an economic focus (Blasten et al. 2001; Ottitsch et al. 2002).

CHAPTER 9

REGULATORY INSTRUMENTS

Regulatory instruments are the classical instruments of politics that are used to solve social or economic conflicts. Regulatory political interventions go beyond advisory services or financial incentives, since they are binding regulations that can be implemented by force. With these instruments, forest policymakers have also set up high limits for forest users:

Regulatory instruments comprise all those regulatory political interventions which formally influence social and economic action through binding regulations.

These regulations determine how certain target groups should act. They prevent forest owners, and those persons benefiting from forests, from taking action which could harm forest policy objectives. With concern to forestry, the simple and clear concept of regulatory instruments means that maintenance of forestland is secured by means of prohibitions and regulations, and that its utilization is subject to those limitations required to ensure its sustainability.

The opportunity to intervene effectively is only ensured, if forest policymakers have sufficient power. In a constitutional state, politicians amass power in the form of legal authority. Democratic or parliamentary legislation gives politicians the power to make binding decrees. This power is limited to legally endorsed and legitimized areas. This results in a close connection between regulatory instruments and forest law. One of the differences between the two is the limitation of regulatory instruments to binding decrees which do not include the legal basis for subsidization or public relations work, e.g. On the other hand, the concept of regulatory instruments seeks out the actual underlying power structures, which are the deciding factor, and not the legitimacy based on law and order.

Legal authority means that political decision-makers can actually assert their power despite the resistance of those concerned. This simple definition

of legal power was already drawn up by Max Weber (1972) at the beginning of the 20th century. Today it still remains fully valid regarding regulatory instruments. Only in as far as legal authority exists, do regulatory instruments achieve the desired impact.

In evaluating regulatory instruments, it thus highly depends on correctly assessing the power of legal authority. Laws do not give any information on this aspect of regulatory instruments, since they take for granted that sufficient authority already exists. Legal discourses analyze the various levels of the legal system, from constitutional law to decrees or regulations, and concentrate on deriving and establishing legal standards for the forest sector. The political aspect of regulatory instruments adds to the legal aspects. This always seeks out the basis of power for legally standardized regulations, since the regulatory instruments cannot achieve the desired impact without a sufficient basis of power.

The regulatory instruments, which are significant in forestry, can be formally elaborated on the basis of forest law. This involves characterizing the analysis of deficits in control which, in turn, leads to the elaboration of informal applications and deficits of regulatory instruments.

9.1. Formal Control through Regulatory Instruments

Regulatory instruments dictate certain actions to be taken by those concerned. The directives may be issued "hierarchically" by the state. However, they may also open up new paths of action for those concerned. In this case there is no hierarchical subordination to the state, since the directives are equally applied by those concerned.

Furthermore, the directives are concerned with varying sizes of target groups and tasks. In the case of individual orientation, they apply to closely defined tasks and target groups; and in the case of a more general orientation, they concern the standards of a generally defined task and a correspondingly large target group.

The criteria of "hierarchical/non-hierarchical" and "individual/general" define **four types of regulatory instruments** (Voigt 1993, p. 287) which are also characteristic in forestry and the Forest Act. Regulatory forestry directives standardize federal law as well as the laws of the federal states. Federal law aims towards coordinating and standardizing the state laws, i.e. by formulating framework regulations which are to be further elaborated, or

formulating regulations which have a direct effect on the concurrent legislation.

The following overview deals with the regulatory instruments of the German Forest Act. According to the predominant behavioral and organizational regulatory instruments, it will elaborate how the regulatory instruments of the forest sector are mainly based on hierarchical control requiring that the state have a high degree of expertise and political power. In contrast, the German Forest Act makes little use of non-hierarchical supply management or process control instruments.

9.1.1. Behavioral Control through Forest Law

Behavioral control is hierarchical and individual. The state prescribes certain action to be taken by an individual who either benefits from or protects forests. Regulations and prohibitions are enforced by threatening to apply sanctions. Numerous forestry regulations are based upon this model of control.

- **Multidimensional Definition of the Forest**

Forest sector regulations refer to action that affects the forest. Not all land is the responsibility of the forest sector, rather only those areas which are forestland. To define the land included under the Forest Act for the purpose of regulation, the concept of forest requires definition. In practice the standardization of a functional definition of forestry in the Forest Act has proven to be a multifaceted goal that can be fulfilled using three different dimensions of aspects.

The definition of the forest focuses on the aspect of vegetation. In the sense of the Federal Forest Act (§2), any land is forestland if forest plants are growing on it. There is no catalogue which gives detailed information on forest plants, however the specific context of forestry makes evident the characteristics of forest plants. Forest shrubs only constitute a forest community in connection with other forest plants that form a trunk, whereas shrub growth alone does not constitute a forest. Neither do fruit trees nor isolated trees constitute a forest, since a forest must constitute a certain minimum surface area. The Forest Act assumes that the decision regarding the local vegetation will be made according to scientific criteria.

However, the vegetation alone does not supply a useful definition of the forest in practice. On the one hand, forest enterprises harvest (mature) forest trees without terminating the utilization of the land for forestry. On the other hand, forestland might be used for a completely different purposes, such as recreation or golf courses. The definition of the forest requires the additional aspect of "utilization." Utilization broadens the definition of the forest to include additional uses, such as forest roads, timber storage areas, limited clear-cuts, forest meadows and "other forest-related dedications that serve the forest." This would include significant areas of forestry in the definition of the forest, connecting forestry more closely with forests than any other utilization. This utilization criterion can also exclude certain other form of utilizing trees from the concept of forest, such as Christmas-tree plantations, parks in residential areas, tree nurseries or hedgerows. The utilization criterion can furthermore serve to include recreational areas (or other uses), such as lakes or parking lots in forests, in the definition of the forest. The criterion of utilization can facilitate fine-tuned regulation in contrast with the single criterion of vegetation, since it allows the legal definition of the forest to be oriented to certain forms of utilization targeted by the legislative bodies. A recent example of such a process is the special regulation for short-rotation forests (Harmonization Law, Federal Law Gazette 1995, 910), which have the characteristics of a forest according to the vegetation criterion, but are exempt from the definition of the forest in order to keep them under agricultural jurisdiction and avoid the stricter forest protection regulations.

By including the aspect of utilization, the issue regarding the mode of use arises. If there were complete freedom in determining utilization, the Forest Act would lose its power of control, since land owners would be able to claim use their land in a manner exempting them from classification as forest. Legitimate utilization is therefore determined according to the current mode of utilization, and the executive decision serves as an additional aspect. The most important instance involves termination of classification as forest by being granted the approval to convert it. Without this executive decision, the classification as forest is upheld, and the forest is specially protected even if the trees are harvested at some point in time or the land is used for any purpose other than forestry.

The executive decision also differentiates among three different categories of forests. The "protective forest corridors" in sparsely wooded regions and urban areas, which are specially excluded from conversion, or the recreational forests serving the needs of the population, require additional administrative acts to make them legally binding. Protection forests are also

usually subject to by formal administration decisions. Stricter regulations and limitations on forestry activities apply to protection forests, spanning everything from climate, water, soil, and emission protection, in order to conserve them.

The aspects of utilization and executive decision making distinguish the legal definition of forest from the purely botanical definition of forest. Formally, the broadening of the legal definition of forest serves to improve regulatory control. A differentiated definition enables the targeted regulations to be more clearly outlined. Establishing various forests categories makes it possible to grade the protection regulations according to the public services provided by these different categories of forests. Informally, the political purpose of the definition of forests is mainly to safeguard the forest sector's area of competence. The forest sector and public forest administration outline those areas of the land, which are subject to their special political field of competence according to the definition of the forest in the Forest Act. A forest definition, which includes large parts of the landscape, can establish a wider scope of tasks and decision-making competency for forest policymakers.

- **Forest Conservation**

The German Forest Act calls for standardized administrative approval in the case of converting a forest into another form of utilization. In a legal sense, this is a reserved preventative authorization. Administration has to examine in advance the consequences of any forest conversion and declines approval, if the conservation of the forest is in the interest of the general public, especially if the forest is important for safeguarding the equilibrium of the natural environment, forestry production or recreational land for the population. The reserved authorization of forest conversion is one of the first measures prescribed by the Forest Act to ensure the protection of forests, an instrument of preventative environmental protection.

This instrument requires the authorities to weigh the interests of the potential mode of utilization and the interest in forest conservation. The private interests of the forest owner as well as the interests of the public are both to be considered. This regulation makes it much more difficult to realize private interests regarding conversion to farming land or building land. In contrast, however, the builders of public infrastructures are more likely to be granted approval for forest conversion (Niesslein 1981; Hammer 1985; Krott

1990 (1)). Since the authorities have to weigh between two different public interests in this instance, namely the public interest of conserving the forest and the public interest in the infrastructure construction, this special decision is particularly difficult. This would mean the broad-scoped forest conversions that took place over the past decades cannot necessarily be classified as deficits in enforcement, since they may have possibly served public interests. To better coordinate decisions regarding public undertakings, approval for conversion can be linked to determining another mode of utilization under public law, in particular according to the Federal Building Act or the official decision process. Since the criteria of the Forest Act are to be fully applied to the higher proceedings, the contribution of the forest sector to decision making is formally secured.

Granting approval for forest conversion involves the opportunity to prescribe replacement afforestation or other measures to ensure that either the most environmentally compatible action has to be taken or the forest has to be conserved. This regulation gives the authorities sufficient practical leeway to minimize the negative consequences of a permitted conversion thus making an important contribution to forest protection.

- **Afforestation**

The planting of new forests requires the approval of the authorities. The Forest Act also takes preventative measures here. To make this decision, the authorities have to weigh between the public interest of increasing the total area of forestland and the opposing interests, such as those of regional planning, improving agricultural structures, protecting neighboring property, protecting the habitats of endangered flora and fauna, or landscape conservation.

These requirements are of great significance, since the Forest Act sets the objective for the authorities to harmonize afforestation with public interests through creating suitable conditions and time limits, in order to increase the area of forestlands (Krott 1986 (1)).

- **Sustainable Forest Management**

Beyond the conservation and expansion of forestland, the Forest Act aims at ensuring the sustainable management of existing forests. The general obligation of the forest owner to ensure that there is sufficient growth on all non-stocked or poorly stocked forestland within a reasonable time-frame serves this purpose. This should take place through reforestation or natural

regeneration. The authorities are required to monitor the growth process and intervene in the case of negligence by stipulating deadlines, fines or measures to rectify the damage.

Further obligations in the scope of forest management are standardized in varying detail by the state laws (Zundel & Hasel 1981). The basic obligation of the forest owner to use competent, sustainable management and planning is generally applicable. However, the regulatory instruments developed for this purpose differ widely. Some of the states also require official approval for clear-cuts exceeding a certain area. Protecting the forest from biotic and abiotic damage, particularly forest fires, counts among the tasks of forest owners, and the state laws give forest administration varying degrees of power to prescribe mandatory measures in the face of impending dangers.

Forest utilization may only take place under consideration of the neighboring forests, however only some individual states prescribe regulations concerning this requirement. Forest development is also the subject of separate forest directives in several states. They prescribe construction of access roads required for proper management, and set standards for safeguarding the interests of nature and environmental protection.

- **Forest Recreation**

The German Forest Act grants everyone the right of access to forests for the purpose of recreation. In addition, cycling and horse-riding are permitted on roads and paths. This regulation complies widely with the desire for recreational use and limits the owner's free disposition over his forest on the basis of a social obligation.

To protect those interests or objectives of the forest owners, which are worthy of safeguarding, the state forest acts provide further regulations for access to forests. Anyone who would like to access a forest is subject to certain rules of conduct, such as to avoid disturbing or endangering the forest community. The forest owner may prohibit access on the grounds of important circumstances in cooperation with the authorities either for a limited period or on a permanent basis.

9.1.2. Control through Supply Management

Supply management is individual, as is behavioral control, however it is not hierarchical. It grants those concerned legal rights which pertain to certain actions or omissions by third parties. Those concerned can avail themselves of this regulatory instrument and bring up their claim for negotiation or file a court suit.

Classic legal supply management standardizes the German civil law code which took effect on 1st January 1900. These regulations continue to apply to the present time. The civic regulations and their enforcement by those concerned, with the aid of legal experts and courts, contribute substantially to the regulation of conflicts regarding forest utilization. In particular, they influence all forestry business operations where the authorities are only minimally involved.

However, supply management requires mobilization of the instrument. It only secures forest sector objectives in as far as certain persons are so adversely affected by the problems that they avail themselves of the offer to take action. In the face of problems with business activities or neighbors or those seeking recreation, it can be assumed that those who are adversely affected will actively make use of this instrument to promote their self-interests with the help of legal regulations. However, if the negative consequences directly affect the forest, only indirect affect the population or future generations, no stakeholders will make use of the regulatory instrument. Only in those conflicts, where informed stakeholders are involved on both sides, can forest policymakers successfully implement supply management. If those involved lack the information, the incentive or the opportunity to take action, supply management reaches the limits of its effectiveness. In forestry, this mostly pertains to the task of protecting the forest which is therefore mainly regulated by the instrument of behavioral control.

9.1.3. Organizational Control

Organizational control takes place both on a general basis as well as a hierarchical basis. The regulatory effect involves creating organizations or institutions to conduct certain tasks. The hierarchy of this instrument lies in its special commission and the authority of the institution to fulfill the task responsibly. This is considered a general instrument, because the

commission only generally defines the task, rather than the individuals concerned.

Forest law avails itself of organizational control in many ways. Various types of forest holdings have been standardized, comprising state forests, corporate forests including municipal forests, and private forests. In connection with the right to private property and the civil law code, the owners are expected to successfully comply with the task of sustainable forest management in the scope of the market economy. In return, the right to private property guarantees the owner a special position and right of disposition over his own forest. The various forms of forest ownership allow for additional opportunities to more clearly define the rights and duties of the owners in the scope of forest law. This makes it possible to establish general standards for state forests regarding their protective and recreational functions (Klose & Orf 1998, p. 119). The principle of regulation is based on the capacity of the legal forest owner to take action on his own account.

Further forms of organizational control comprise are the various models of forestry cooperatives and the municipal forest. In such cases, the laws also provide regulations constituting special rights and duties for the promotion of forest conservation and utilization.

Organizational control also involves creating a public forest administration which has the general task of managing the state forests to achieve the greatest possible benefits for the general public, as well as supervision of all forestlands. The law endows forest administration with special rights and depends on it to independently fulfill the set objectives. To assist with the sovereign task of forest protection, i.e. to prevent legal violation of the forest owner's rights, forest law provides for special forest conservation rangers who are appointed from among the locally active foresters.

9.1.4. Process Control

Process control stipulates general tasks, such as organizational control, however it is not hierarchical. It establishes processes for those concerned, according to which they should seek their own solutions as equal partners. Court procedures initially involved many elements of process control. All parties were to be given an equal hearing to establish the truth in cases of conflict. An hierarchical establishment of truth in a court procedure is now

characteristic as a result of the judge's prominent position. In addition to legal proceedings, which are very important in enforcing forest law, there are various new forms of mutual conflict resolution by the parties concerned. Mediation processes are being implemented to protect natural resources (Gassner et al. 1992; Claus & Wiedemann 1994). A mediator works towards negotiating a common solution on an equal basis between those involved. Regarding forestry in Germany, mediation processes do not yet play a significance role. However grassroots participation is one of the goals of new planning initiatives in the scope of national forest programs (Glück et al. 1999).

9.2. Formal Implementation of Regulatory Instruments

Regulatory instruments can only take effect when the law is applied to a specific case, whether it involves business operations or the general public. The "implementation" of regulatory instruments has to fulfill typical tasks, independent of the specific stipulations.

Formally, the issue of power pertaining to the implementation of regulatory instruments is considered to have been resolved. The enforcing state always has sufficient power to implement those regulations, which are recognized as legally conform. A logical chain of sanctions is meant to ensure success. If warnings are not heeded and fines do not help, the law provides for "enforcement procedures." Among others, this may involve attachment of funds or substitute performance. In the case of substitute performance, the authorities reestablish the correct state of affairs, and the guilty party has to reimburse the cost of this. As a last resort, that state may also exert its power directly in the form of physical force (Giemulla et al. 1994, p. 282ff.).

The decision-making process is not that simple, because general standards have to be applied to specific individual cases. The legal programs that stipulate the decision-making process often comprise "unclear legal terms" concerning the most important criteria. For instance regarding forest conversion, forest law stipulates that "rights and duties and various business interests of the forest owner, as well as the concerns of the general public, [are to be weighed] against each other" (German Federal Forest Act §9). The standardized decision-making criteria in the state forest acts can serve to help clarify these general terms, however the stipulation still remains very vague. In general terms, the decision should promote common welfare, i.e. should comply with the recognized objectives that policymakers are trying to realize with the help of the law.

To ascertain that which constitutes common welfare in an individual case, two basically different procedures may be used (v. Arnim 1977): the "process for determining common welfare according to interests" and the "process for determining common welfare according to facts" (cf. Illus. 5).

<div style="text-align: right;">Type</div> <div style="text-align: left;">Characteristic</div>	Interest – Oriented Common Welfare	Cognition – Oriented Common Welfare
Participant	Stakeholder	Impartial Judge
Information	Factual Knowledge and Subjective Interests	Factual Knowledge and Objective Values
Rule of Decision	Vote	Optimized Formula

Illustration 5: Process for Determining Common Welfare

The procedure for determining common welfare according to interests is based on the postulation that only those concerned know their self-interests well enough to be able to come to common agreement. Their subjective interests should work together to lead to the solution which best serves their common welfare. To implement the process of determining common welfare according to interests, decisions have to be made 1) involving those concerned; 2) introducing their subjective knowledge and values; and 3) coordination of the results among those concerned.

The process for determining common welfare according to findings is intended to provide a solution based on objective facts and legal stipulations. The decisions should 1) be made by impartial judges, 2) who have the best

knowledge of the facts using objective values, and 3) apply a comprehensible decision-making procedure.

Administrative procedure basically follows the concept of decision making according to findings. The executive authorities have to proceed impartially without giving preference to any of those involved. As a basis for its decision, it has to determine the actual state of affairs (Brühl 1990); and administration has to make the decision using legal rules of thinking.

Since the facts of the case are increasingly difficult to ascertain, administration employs a teams of experts called "expert officials." These official foresters and ecologists inform those concerned about the state of affairs and all aspects of the problem which involve the regulatory stipulations. The opportunity to stipulate optimum solutions by means of regulatory instruments dependent to a great extent on the expert officials. As a result of the comprehensively established public forest administration, many well-trained experts are available for enforcing forest law in comparison to other sectors.

Despite a clear preference for determining common welfare according to findings, administrative procedure also encompasses several elements of the interest-determined process. For instance, the basic principle of granting each party a hearing still applies. The authorities can only base their decision on evidence that both parties can take a stand on. This should ensure that the subjective knowledge and evaluations of both parties are considered in administrative procedure. Orientation to subjective interests does not go so far as to make the decision dependent on the agreement of those concerned.

The value of granting each party a hearing depends on whether those concerned are recognized as a party in the process. The law is very restrictive on this point. As few persons as possible should be recognized as parties in legal terms. Many of those persons concerned with forests are not recognized as a legal party and thus have no input in the proceedings. Regulatory instruments thus block their opportunity to access as much information as possible from the onset.

9.3. Problem-Solving Deficits of Regulatory Instruments

Regulatory instruments trigger certain activities in target persons for the purpose of solving problems. They may limit the use of forests, promote reforestation or permit access to forests, etc. The laws are imperative and

principally apply to all problems of the same kind. The strength of regulatory instruments is based on their imperative nature, since they are not dependent on the opinion or interests of those concerned. Whereas a target person may form his own opinion regarding informational instruments and financial incentives, regulatory instruments force him to change his behavior. Desired behavior can be politically enforced by means of regulatory instruments. However, state coercion also makes for weak spots in problem-solving (Hucke 1983):

- **General Regulations for Individual Problems**

Regulatory instruments make the same claim to legitimacy in all cases concerned. In practice, the uniformity of the rules means that a wealth of individual cases are practically resolved according to uniform solutions. By force of nature, this results in solutions which are below optimum, since the actual problems are far more diverse than the few categories of problems stipulated by law. For instance, the state forest acts sets various deadlines for reforestation ranging from "immediately" to two or three years. Due to the diverse conditions of natural growth, such standard stipulations often prescribe periods that are either too long or too short. Strictly adhering to the stipulations of the law may therefore result in solutions which are less than optimum. The same may apply to the general prohibition for clear-cutting, whose negative impact varies according to site and tree species.

To achieve uniform results, regulatory instruments are often only defined in general terms. They apply to many cases, in practice, however they only provide general guidelines which are then more closely defined in the process of enforcement by those involved, who are usually expert officials. The regulatory competency thus passes on unnoticed from the legislators to forest administration enforcement.

A further strategy for ensuring the general applicability of the regulations is to simultaneously establish standard exemptions. Those with strong political interests struggle to establish these exceptions in the course of passing legislation. The general norm regarding public interest in conserving forests and the various exemptions allowing forest conversion for the purpose of diverse utilization interests clearly indicate how exceptions to the rule can weaken the control function of the regulatory instrument. For instance, the public interest in establishing infrastructure services is served by those

exemptions which claim large areas of forest in sparsely forested urban regions.

- **Problem-Solving Mandate without Sufficient Competency**

According to their concept, regulatory instruments require certain action to be taken. However, they do not ensure that the person concerned is able to adhere to the standards. Proper forestry standards require a comprehensive understanding of the forest, which many forest owners do not have. Despite a forest owner's goodwill, if he lacks the special expertise, he will be overtaxed by the challenge of applying the legal standards to his forest in practice. An attempt to introduce new, more ecologically orientated silvicultural methods to private forestry by decree might therefore not be highly successful. Comprehensive advisory services are indispensable in supporting this regulatory instrument.

In addition to expertise, economic potential also limit enforcement of regulatory standards. For instance, the law requires that special care be taken in the maintenance and harvest of trees in protection forests to safeguard the protective function. The forest owner can only adhere to these regulatory stipulations within the scope of his economic potential. In the face of sinking proceeds from the protection forest, or the entire forestry enterprise, this will reduce the resources that the owner can implement to maintain the protection forest. Above and beyond the political issue of "fair" distribution of proceeds between financing public tasks and private income, regulatory stipulations lose their impact wherever there ceases to be any returns. In economically weak forestry enterprises, the control effect of regulatory instruments is reduced. In the new German states, where private owners are lacking everything from machinery to financial means, it has not yet been possible to establish proper forestry practices by means of regulations and prohibitions.

- **Problem-Solving Mandate without Further Incentive for Improvement**

In the best case, regulatory instruments define the optimum solution according to the current state of information. They urge forest owners and the general public to upkeep the prescribed state of forestry management. However these guidelines do not give further incentive for improvement. Quite the opposite, those concerned feel they have fulfilled their task by adhering to the standards and do not make any effort to take further steps.

This weak point of regulatory instruments is apparent in the legal prohibition of clear-cutting, for instance. The prohibition limits utilization, and forest owners get the impression that by avoiding clear-cutting, they have already sufficiently provided for ecologically sustainable management. Forest owners thus do not consider it necessary to make an effort to comprehensively improve their forestry management concepts. The rules and prohibitions define limits of utilization which often no longer correspond with the current state of ecologically compatible production. With continuous adaptation of the regulations in keeping with progress in ecologically compatible management concepts, the innovation deficit of regulatory instruments can be eliminated. However, a flexible further development of the legal basis overtaxes the decision-making power of the political system. The legislative process is far too complicated, and its dynamics are not predictable enough for the norms to be continually adapted to the latest technical standards. It would be easier to reduce the innovative deficit by combining economic and informational instruments, particularly advisory services.

- **Individual Regulation and Global Malfunction**

Regulatory instruments stipulate the optimum individual behavior. Each forestry enterprise or individual person has to abide by the stipulated norms, i.e. the environmental standards concerning nature protection and those who profit from forests. However, the total environmental burden resulting from the permitted impact of individual business operations is not directly subject to regulatory control. Even if the laws are adhered to by those individuals concerned, the total environmental burden can still surpass the limit of marginal damage.

Concerning the consequences of afforestation, the difference between an individual case and the overall impact becomes clear. Small-scale afforestation hardly has any measurable negative impact on the conservation of species or landscape. Yet if afforestation takes on a larger scale, the consequences for the landscape may add up resulting in serious negative effects that should be avoided in the interest of the public. Since all applications made regarding afforestation are accounted equal rights, and the standards cannot be altered in individual cases to achieve an overall goal, the overall impact cannot be optimally controlled by regulating individual cases.

Regulatory instruments are controlled by "conditional programs." As soon as the conditions of an individual case are known, certain action must be taken according to the law. The final orientation towards a certain goal should not determine legal decision. Planning would be suitable for creating "final programs" in politics. Individual decisions should be made according to their contribution to the goal. Planning should thus set in regarding the serious deficit of regulatory instruments which do not consider the overall results of numerous individual decisions.

9.4. Informal Application of Regulatory Instruments

Informal application accompanies the formal implementation of regulatory instruments. All those actions are informal, which have not been formally defined. Informal action takes place outside the framework of the law. This may contradict the law or uphold it. Informal action is by no means always prohibited.

One great difference between the formal ideal and informal reality lies in the informally limited power of the authorities to enforce their decisions. In practice, it is always very difficult for the authorities to win over enough support to back their regulatory directives. The power potential indicates the informal strategies used in implementing regulatory instruments:

- **Power Imbalance Related to the Type of Problem**

Two basically different types of problems lead to a power imbalance between the authorities and the target person or group.

When approving new plans, the authorities have a favorable position. The forestry enterprise does not benefit until the plans have been realized. The forestry enterprise is therefore interested in a speedy course of events and will cooperate accordingly. To achieve positive results, the forestry enterprise will agree to the limitations and compensatory or replacement measures required by the authorities. Any reservations on the part of the authorities will delay matters and can thus be used to informally lobby the forestry enterprise. The authorities enjoy a favorable position regarding applications for forest conversion or afforestation, which are then only granted approval under certain conditions and time limitations.

The division of power with respect to monitoring stipulated conditions and further requirements that made of land owners is completely contrary. In

these cases, the land owner has the stronger position. As long as the authorities have not fully enforced the stipulations, the land owner can uphold his illegal practice. He therefore employs all his means to prolong the authorities' decision. He will only provide incomplete information, repeatedly referring to new issues and refusing to recognize the legitimacy of the authorities' decision by insisting on legal proceedings. The time informally gained may be enough for the problem to have changed considerably due to the ecological dynamics of the forest or economic developments, by the time the authorities' stipulations are fulfilled. For instance, once a forest has been clear-cut, it can no longer be replaced or compensated for over a short period of time. Fail to reforest before a certain deadline is another serious issue that the authorities have great trouble enforcing, and the time-consuming process of finding a solution is sometimes only overcome by the establishment of natural regrowth.

- **Power Potential of Forestry Enterprises**

Forestry enterprises have at their disposition an informal power potential which they put to work against the stipulations of the authorities. Only the forestry enterprise concerned has direct access to utilize its own forest. In practice, forestry enterprises therefore often act in contradiction to the stipulations. The authorities can only determine and correct these transgressions after they have taken place. Such monitoring is relatively difficult due to the large number of small forest owners, which thus weakens the authorities' position. The forestry enterprises base their power upon their great number in this concern.

Two other power factors of general significance have not developed to any significant state in forestry enterprises. On the one hand, forestry enterprises do not have more expertise available than the forest authorities, as a rule. In contrast, expert officials have a more detailed knowledge of forest production and growth conditions than the small forest owner. On the other hand, there are only a few coveted jobs available in forestry enterprises today. The significant informal form of pressure in threatening to reduce jobs is therefore no longer used in forestry enterprises. The few jobs in forestry are even of little significance in the local community.

- **Regulatory Deficits Concerning Local Authorities**

Most forestry enforcement decisions are made by the forestry offices or the regional administration offices, instead of the responsible local authorities. The regulatory stipulations dictated by law only provide inadequate decision-making guidelines for the local authorities, which are usually very general. If they are standardized in the form of directives or ministerial guidelines, the details often do not correspond with the needs of the local authorities. Finding local solutions for tasks and maintaining the position and resources of one's own office forces the responsible local authorities to only follow the regulatory stipulations conditionally. The forestry offices' independent status is supported by their own business activities, the fact that they are managed by an experienced expert and their being involved in local interests. The risk of incomplete enforcement due to local considerations is prevented by the regulatory programs. For instance, they dictate that particularly important decisions, e.g. those regarding large-scale forest conversion, are not to be made by the local authorities, rather by the regional authorities or the ministry, instead.

Contradictions in legal stipulations also have grave consequences on enforcement by regional authorities, since the laws always exclusively pertain to certain sectors, such as forestry, water management, environmental protection, trade and industry, or agriculture. The laws standardize their own norms for each of these areas. However, the local authorities have practical problems simultaneously resulting in economic, ecological and social impact. The individual laws set objectives for each of these sectors which contradict each other, on the whole. Such contradictory stipulations force the local authorities to informally seek solutions on their own. In the face of a conflict, the forest sector attracts little attention, because it does not count among the powerful sectors of regional government.

- **Alliances with the Authorities**

The authorities informally seek additional support. This may include any kind of partnership, be it with the state, the associations or the grassroots. The ratio of informal allies to those formally involved in the procedure is decisive for the enforcement of regulatory instruments. The greater the difference between the two groups of stakeholders, the more they depend on informal support. However, the result can still be promoted along the lines of regulatory stipulations, especially if administration is able to even out its

informal weakness in the face of a powerful client by making informal pacts with the client's opponents.

A comparison of the forestry offices' current endeavors to create alliances by means of legal stipulations illustrates that administration is seeking to find a balance among forest owners, timber consumers, the local authorities, hunters, expert officials, associations and the media (c.f. Illus. 6). Contrary to the programmatic focus on all of the forest's functions, however, only a few partnerships have been sought with the tourist industry or waste disposal management.

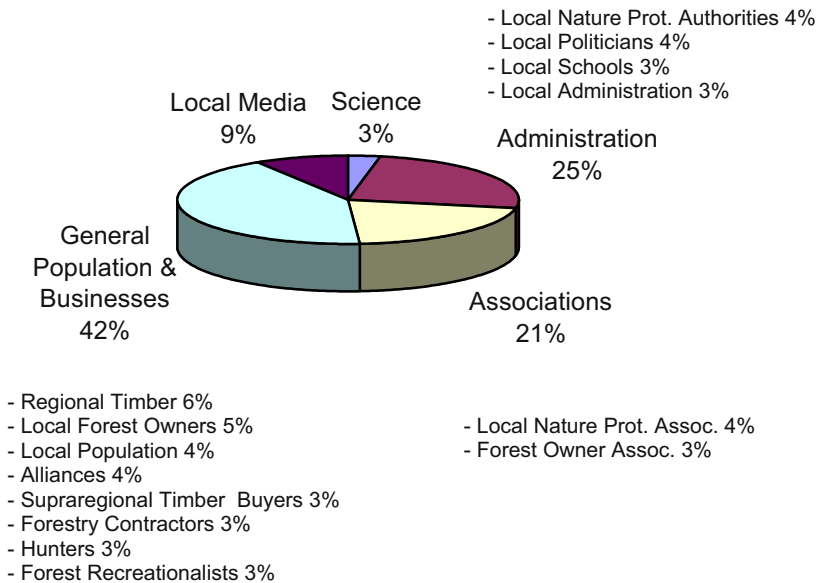


Illustration 6: Potential Partners of the Forestry Offices

The realization of these alliances naturally depends on the kinds of partners involved. Support is easiest to find in the form of other expert authorities or superior offices. The associations have also become the allies of administration. However the particularly close cooperation with the associations of forest owners does not comply with the legally programmatic balance of all forest functions. The desire expressed by the forestry offices

for cooperation with nature and environmental protection partners has not yet been fulfilled very often in practice.

The media and grassroots protest groups are difficult allies in the enforcement of regulatory instruments, because they do not figure in classic, formal administrative procedures. Forest administration is only slowly taking advantage of the strategies of PR work and grass roots participation, which were developed over the past decades. The lacking focus of regulatory instruments on these partners is therefore not currently being compensated for in forestry.

- **Informal Negotiation of Regulatory Directives**

The power potential of those concerned compels the authorities to enter into informal negotiations. Power potential is used as a threat in this context. The authorities threaten with delays in issuing permits, unforeseeable stringent measures to be enforced by their higher offices, or references to grassroots protests against the forestry operation, etc. A forestry enterprise can also use its power potential as a threat. Informally, those involved know that they can cause each other considerable trouble. They can therefore both expect advantages from an informal state of agreement.

The chance of achieving an informal agreement are usually tested in the course of informal negotiations (Krott 1990). Power potentials are estimated by both sides, and a compromise is found. Formal proceedings are often not introduced until both sides see a solution in sight. The authorities are prepared to conclude their negotiations with large forestry enterprises in the form of agreements forgoing formal notice. "Joint administration" plays an important practical role in forestry, just as it does in other sectors of administration (Benz 1994).

The hope of earning an advantage motivates those involved to enter into informal negotiations. The basic methods of conflict resolution, including raising awareness, practical solutions and negotiation, enable the targeted advantages to be more closely defined. In the face of forest conversion for the purpose of road-building, raising awareness would involve voluntarily giving up the project. The project-holder should give up his project out of his own self-interest, because he recognizes the negative ecological consequences of road-building. A practical solution would involve improving road routing; this should enable the project to proceed as well as ensuring that less forest is sacrificed. Both of these solutions are based on a change of thinking by the project-holder in the face of his own self-interest,

which can only be achieved by a candid exchange of information with the expert officials. Successful cooperation is only possible, if the best expertise on technically innovative options is available for a sufficient period of time.

Beyond the scope of any agreement achieved by means of an intelligent technical solution, the authorities and the other parties involved use their power potential to bargain for a compromise:

- To begin with, projects have room for compromise. The property developer can plan his project to utilize as little land as possible as well as taking reforestation measures; or the authorities could forgo maximum forest protection and cannot accept any small loss of forestland. In pragmatic informal negotiations, such compromises are easier to find than in formal legal proceedings where the authorities cannot accept any compromise which deviates from the norm.
- Secondly, those involved use the important resource of basic willingness to cooperate in the negotiations. It is advantageous for both partners to quickly find a solution to a conflict, so as not to endanger their cooperation on a long-term basis. To also profit from good relations in the future, both parties are basically prepared to accept a compromise. An appreciation of good cooperation is highly characteristic for the dealings of forest administration with forest owners.
- Thirdly, only informal negotiations provide the chance to also use entirely different power factors in bargaining. For instance, the property developer may not bother mobilizing his allied partners to spare the authorities the political lobbying. Quick processing of the application also constitutes coveted evidence of success by the local office be presented to the superior authorities. On the other hand, the building developer appreciates it if the authorities are willing to agree to a compromise without introducing formal proceedings. Threatening to open formal proceedings plays a significant role in the informal bargaining process. This is called negotiating under the pressure of state coercion.

The advantages to be had for both sides determine the success of informal negotiations. The state of the problem, the procedure and the institutions involved are the factors that determine the possible advantages (Benz 1994):

- Complex problems offer more opportunity for a compromise. This is why negotiations in the scope of projects that encompass large areas of forestland are easier than finding a compromise for a specific case of forest conversion.
- Growth problems, which involve the distribution of additional benefits, are easier to resolve in negotiations than redistribution problems where one party has to relinquish something to the benefit of the other party. New plans requiring a permit according to forest law usually create additional benefits. As long as such plans are not entirely prohibited, solutions for similar growth problems can usually be found in the course of negotiations.
- The model of solution-finding at the cost of third parties is often the basis of successful cooperation. Forest administration and road-builders might agree on a solution which damages the forest as little as possible as well as enabling the road construction, but results in a higher burden on the natural biotope and the environment. This solution will only find agreement without any problem, as long as environmentalists are not involved. Since the number of those parties involved in cooperation is always limited, any informal solution tends to be at the cost of uninvolved third parties.
- A small circle of involved parties eases mutual trust in cooperation. Informal contact for the purpose of cooperation always takes place with a few selected partners. In formal, public hearings with grassroots participation, the large number of those involved makes informal negotiation more difficult.
- Ideological hard-line positions of those involved hinder compromises, however they may allow informal bargaining using instruments of power. An uncompromising property developer, who is only interested in realizing his own project, may be convinced to make a partial compromise against his own convictions under the threat of long and difficult proceedings. He will not agree because of a newfound understanding of environmental compatibility issues, but because he counts on avoiding significant resistance from the authorities by agreeing to environmentally friendly plans.
- The procedure needs to provide the opportunity for a comprehensive exchange of information. Joint administration therefore requires more time at the onset, which is, however, compensated for in the case of a

joint solution by simplifying formal proceedings and eliminating the need to file a complicated legal objection.

- A practically equal division of power among those involved promotes successful negotiations. Administration does not take up informal negotiations with weak opponents, such as someone building a private home. Administration only considers cooperating with large parties that are capable of creating a noticeable disturbance. Power structures are distinguished by two aspects. On the one hand, administration's strength always prevails in joint administrative action, since it is able to enforce a regulatory instrument with all strictness in a specific case. Yet it prefers to cooperate because of the considerable bureaucratic expenditure. On the other hand, there is great uncertainty for all those concerned regarding the power structure. Both administration, as well as the builder, can only estimate each other's power potential to a limited degree and with great uncertainty. An unclear power structure is the major reason why low-risk cooperation appears more attractive to those involved. In contrast, if the power structure is more clearly recognizable, the stronger party will lose interest in cooperating, since he feels he can assert his interests no matter what.
- The capacity to cooperate is also promoted, if those involved hold a strong position within their own institutions. Only a partner with an internally strong position can have a compromise or exchange of power accepted in his own institution. Informal negotiation thus usually takes place between the heads of institutions; it can hardly be delegated to other positions. The greater an official's power of decision making, the more capable he is of finding a joint solution.

No matter how informal solutions are found, it is always necessary for them to make sufficient allowance for the formal framework of the law whose vague legal terms allow substantial leeway. If an informal solution cannot be found, administration or business may introduce formal proceedings. Since the various power potentials continue to have an effect in formal proceedings, and new aspects are added, by no means can formal proceedings always enforce regulatory measures better than an informal agreement.

- **Informal Grassroots Action**

Basically, the individual citizen does not completely fulfill his or her role as intended by the constitutional state. Only to a limited degree does he or she accept that the legally determined and constitutionally adopted regulatory directives limit his/her scope of action in the forest (Würtenberger 1996). It is the duty of a citizen to accept this, but political reality involves people with completely different concepts of duty. Individuals perceive administration, which makes use of regulatory instruments, in many different ways characterized according to several major distinguishing factors (Pippig 1988). People may be completely 1) satisfied with regulatory procedures; however they are often 2) afraid of administration or greatly 3) mistrust the state. From an individual point of view, the 4) unintelligibility, 5) fairness or 6) ineffectiveness of the procedures also play a role. Positively experienced 7) participation and 8) successful relations contrast with 9) frustration in dealing with official offices. Each of these dimensions is perceived by individuals in the course of administrative procedures. However, some people generally tend to deal more successfully with administration, whereas others are less successful. In Germany, typical manners of dealing with administration can be listed that are also significant regarding regulatory instruments in forestry:

- One type may be classified as the "helpless subject" whose has a basically anxious attitude and encounters a lot of difficulty in dealing with the authorities, e.g. filling out forms. Nevertheless, he or she is satisfied with administration, in principle. People of this type are generally workmen and their families, as well as self-employed persons. Women and old people are overly represented in this group, which is often lacking further education. Clear decisions made by forestry officials are accepted by them without resistance.
- The "competent pragmatist" deals with administration successfully and without emotion on the basis of his or her professional and intellectual competence, and he/she does not mistrust public administration. In most cases he or she is either an executive employee or official, or a self-employed, medium or large-scale entrepreneur. Sensible solutions with practical advantages for both sides can be negotiated with competent pragmatists.
- The "blind bureaucrat" has a completely uncritical attitude towards administration. He or she trusts administration and considers it people-oriented and helpful. He/she is usually a family member of executive

officials or middle-level managers. This person, who is most pleasant for administration to deal with, completely agrees with the remarks made by the forest official simply because he/she trusts administration and the constitutional state.

- The "uncertain, frustrated person" does not bring forth any specific practical criticism of administration, however he or she is basically bitter regarding his/her weak position vis-à-vis "those up on high." This type of person includes many people with a lower education level from the working class. It is easy to get them to accept decisions due to their fear of administration, however a trusting relationship cannot be established.
- The "alienated" individual criticizes administration on principle and rejects it emotionally. Due to his/her entirely negative attitude, he or she has a lot of difficulty in dealing with the authorities. He/she is also from working-class families. The percentage of women is relatively high. The alienated individual does not offer any opportunity for trusting cooperation and is therefore unsuited for grassroots participation.
- The "competent system critic" also has a highly negative attitude towards administration. He or she lists comprehensive arguments involving intellectual criticism of the political system as a whole. In his/her opinion, administration is always at fault for any conflicts. He/she often has a higher education. He/she often comes from families of managing executives or officials. The group includes many men and women under the age of 30. The system critic makes life very difficult for civil servants, since he/she is generally very well informed, and seeks the underlying sense of regulatory directives.

These types of individuals, which also characterize the clients of forest administration, show how strongly the formal principle of equal treatment of all citizens in administrative procedures can be influenced. Enforcement of regulatory instruments cannot succeed without the forest official also using a great deal of informal skill.

9.5. Further Forest Policy Research

The proximity of regulatory instruments to the legal aspects has also characterized the literature available in the field. On the one hand, research on forest law deals with important aspects of regulatory instruments, and on the other hand, analyses in the fields of politics, economics, sociology and psychology examine the regulatory instruments which have been standardized in legal regulations. The corresponding forestry research institutes have often availed themselves of these findings over the past decades.

In the area of forest law, reference should be made to the current and highly detailed overview by Klose & Orf (1998), which illustrates legal findings on forest law from a practical point of view. A comprehensive overview of forest-related legislation is provided by Möller (1996). While these two publications deal entirely with legal issues, i.e. regulatory instruments as seen exclusively from the aspect of normative regulations, the study by Wagner (1996) delves more deeply into legal enforcement. According to the example of legal nature-protection requirements concerning forestry, the positions and the decision-making processes of the law enforcement agencies are also included in the legal deliberations. Numerous forest policy researchers have dealt with forest law in an effort to provide legal security for forestry; these include Hasel, Niesslein, Plochmann and Zundel, among others. Their analyses are oriented along the lines of goals in the forest sector, and they propose improvements for individual regulatory guidelines from a practical point of view. These contributions are based on policy consulting with concern to current legal issues in the practical field, and thus do not aim to be comprehensive theoretical or empirical studies. Schmithüsen (1988) has repeatedly dealt with the international aspects of forest legislation, and has also touched upon the problems of the legislative process and the consequences for the forest sector.

Hammer (1985) and Weber (1993) have presented detailed studies on the political process of formulating regulatory standards and their effects in Germany. Their publications are based on policy implementation research, and they have comprehensive empirical data on law enforcement of forest conversion regulations in Baden-Württemberg and Switzerland, as well as protective forest regulations in Bavaria. The analysis of the clear-cutting policy (Krott 1990) and the protective forest policy (Weiss 1999) are worthy of mention regarding Austria. The study published by Weiss summarizes the implementation of regulatory instruments, and also takes the development and the current state of political research into account (Mayntz 1977 & 1987;

Mayntz & Scharpf 1995; Heritier 1993; König & Dose 1993). In the hope of being able to predict the practical effects and optimize them according to the type of instrument, implementation researchers in Germany began developing detailed typologies of instruments, including regulatory instruments, 25 years ago. Consequently, various different typologies were developed to describe the legal regulations in a politically relevant manner. However, the characterization of regulatory instruments in the empirical studies did not prove sufficient to explain their political effects. It is possible that a specific prohibition make a deciding contribution towards problem resolution in one case, for example, while the same prohibition might not have any practical influence at all in another case. These critical findings directed the attention of researchers to the political-economic environment which can be analyzed according to the characteristics of its players or stakeholders and their networks. Based on the present state of research, an exact description of the characteristics of the regulatory instruments, as well as an account of the general environment will presumably be needed to explain or predict the effects of regulatory instruments.

Past experience in political science would lead to the conclusion that forest policy research should not hope for a catalogue of characteristics according to which ideal, highly effective forest legislation can be drafted. However, it can clearly define forest legislation and analyze its effects on limited issues, or in the political environs of the forest sector, by applying selected typologies taken from political science. Since the description of the regulatory instruments is an important precondition for the second step of the analysis, it is well worthwhile to make use of clearly defined typologies in characterizing regulatory instruments.

In contrast to the frequent discussion of regulatory instruments in the individual countries of Europe, there are not many scholarly publications available in the English language. One of the few current overviews has been presented by Cirelli & Schmidhüsen (2000), and the FAO (2001) has published a more practically oriented study.

CHAPTER 10

LAND-USE PLANNING

10.1. Forest Land-Use Planning on Various Levels

In Germany there is a comprehensive and graduated system of land-use planning (Spitzer 1995). The task of land-use planning is the active development of land utilization according to goals or models. Its guiding principles are 1) securing and development of land utilization; 2) balance of regionally diverse living conditions; and 3) freedom to choose one's place of work and place of residence. These goals are to be achieved through measures taken by the public planning authorities of the federal or state governments, including all their offices on the various different levels (cf. Illustration 7). The land-use planning programs deal with the diverse utilization of land, which is driven by private interests, markets and state measures. Although land-use planning emphasizes its coordination activities, its goals are often in conflict with other public programs and the expectations of private business enterprises or households. Because forests cover 30% of the total area of Germany, the forest sector is very closely involved in regional development.

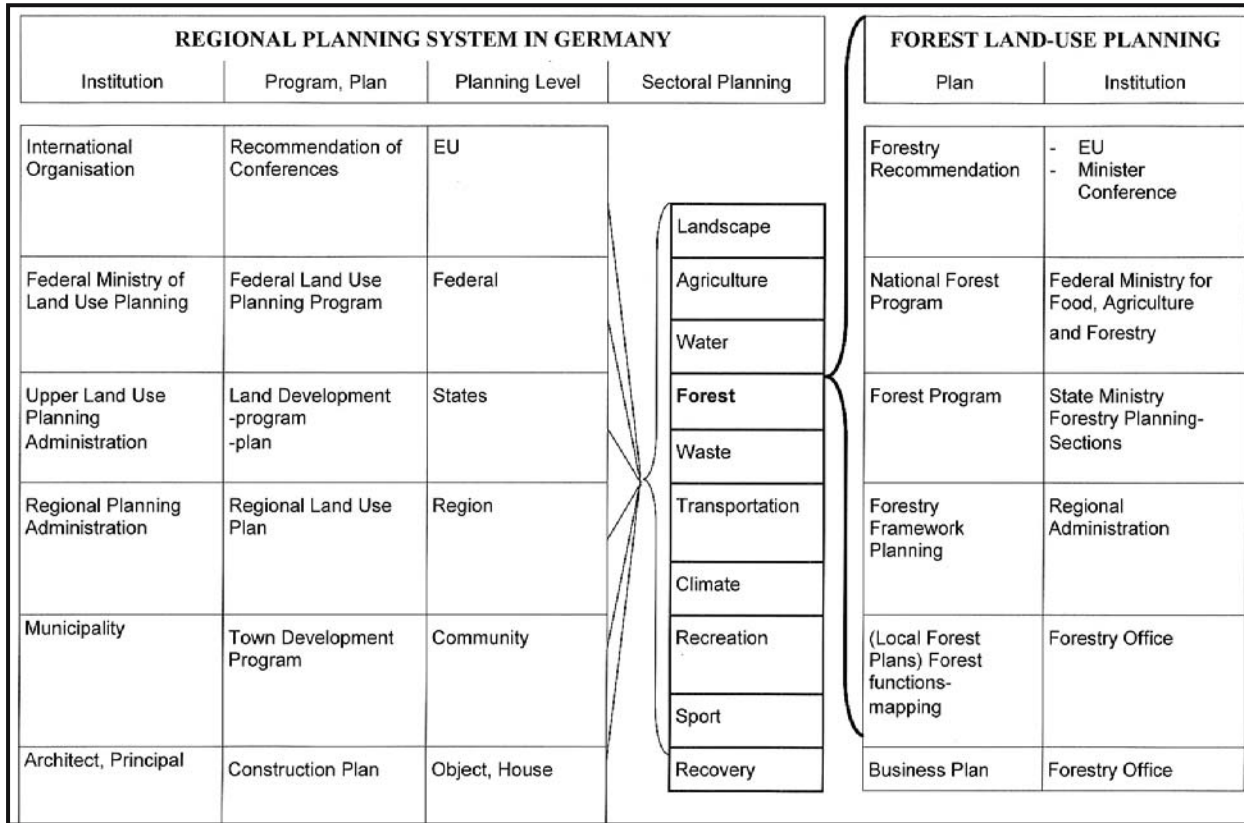


Illustration 7: Forest Land-Use Planning in the Regional Planning System in Germany (modified after SPITSER 1995)

In addition to its traditional specialized planning, the forest sector in Germany has developed its own land-use planning which is embedded in the general land-use planning system.

- **Forest function mapping** records and evaluates the various protective and recreational functions of the forest (Arbeitskreis Zustandserfassung und Planung 1982). It serves to illustrate the regionally varying significance of the forest for the protection of water, soil, climate, and ecological values, for certain objects such as settlements and roads, as well as for the recreation of the population. In addition, the interrelationship of these forest functions is evaluated with regard to the forest industry. Normally, forestlands simultaneously fulfill all of these functions to the required degree. However, in the case of a certain forest, the protective and/or recreational functions may be so important for the general population that they either influence or determine its (non)utilization by the forest industry. The forest functions are determined on site, largely by using scientifically gauged indicators, such as the influence of the forest on erosion, climate and water table, or the number of recreationalists and the distance to the nearest settlements. The evaluations are conducted locally, and they were available for all the forestlands in the states of West Germany prior to the country's reunification. Forest function mapping constitutes a forest land-use appraisal of selected effects of forests on those who utilize them. The expertise available via land-use appraisal is highly limited by resource-saving measures and practical planning processes (Holländer 1981). The evaluation of forest functions is interconnected with the public tasks of state forest administration (Krott 1989 (2)). Evaluation in the field of forest function mapping indicates the positions of forest administration which other land-use planners and land users do not have to or want to assume. Despite these limitations, forest function mapping comprehensively indicates the spatial effects of the forest as a contribution towards land-use planning.
- **Framework planning in the forest sector** is responsible for formulating forest-related land development, in addition to the task of recording data (Arbeitskreis Zustandserfassung und Planung 1977). It serves towards developing the forest sector and securing those forest functions that are necessary in the face of the general social and economic circumstances. Forestry goals are, among others, forest conservation and rejuvenation, sustainable timber production, forest planning for protective and recreationalist purposes, and improvement

of non-forest goods and services through alliances. In addition, the goals of general land-use planning have to be taken into consideration. Framework planning in the forest sector comprises spatial analyses, based on forest function mapping and other data on the forest sector, which determine goals and measures to be taken. These plans afford a comprehensive overview of the forest resulting in a graduated table of obligations for the various stakeholders. Administrative guidelines in the individual states standardize the obligations in the plans for the forest authorities and the state forests. Other public administration bodies only have obligations in keeping with the standards of general land-use planning. Land owners do not have any obligations which directly result from these framework plans, however framework planning in the forest sector does formulate recommendations for the development of forestry and the forest in the interest of the public, which apply to all forest users. On the one hand, public forest administration elaborates framework plans for individually selected regions. And on the other hand, there are also national forest programs, which are, in fact, programs and not national framework plans, as evident from their name. Framework planning in the forest sector constitutes spatially oriented planning related to forestry and the forest, which simultaneously aims to influence all forest land-use development. In the past framework plans, sectoral problem analyses and goals dominate, while general land-use planning is only partially touched upon, albeit always from a sectoral perspective (Niesslein 1981; Essmann 1980). In the internal regulation of the forest sector, planning data only takes on a subordinate position in contrast to other instruments, including regulatory standards, financial incentives and administrative planning (Kohler 1979). In regional planning codetermination, forest sector framework planning completes with the other planning sectors, such as agriculture and environmental protection; and on the other hand, it depends on the involvement and implementation of general land-use-planning.

- **National, provincial, regional and local forest sector contributions to regional planning** present opportunities for the forest sector to collaborate. All spatially relevant forest sector issues are dealt with. The interplay between forestry and the other forms of forest utilization is described as spatial claims or spatial influences on the forest sector. Public forest administration elaborates the contributions, in as far as possible, on the basis of forest framework plans, and introduces them in the decision-making process of general land-use planning. The

coordination of specialized planning fields amongst each other, and with general land-use planning, should take place according to a mixed top-down/bottom-up planning system. On each level, specialized planning and general planning are joined as equal partners, and each of the various levels also arrives at a mutual consensus with the other levels (Spitzer 1995). Practical policy making only follows the ideal of democratic coordination to some degree. On the one hand, regional planning allows an incomplete consensus by covering up contradictions with very general formulations, or dealing with them in different chapters without letting the existing contrasts become apparent. On the other hand, specialized planning has proven itself more influential than general land-use planning because of the public administrative bodies responsible for these special fields (Scharpf & Schnabel 1979). The contributions made by specialized planning in the forest sector usually suffice to assert the position of the forest sector without having to make large concessions. However, due to the lack of consensus regarding content, land-use conflicts may result at a later time in concrete cases of law enforcement.

- **Forest Sector Contributions to the Regional Planning Process and Environmental Audits** represent further instances of planning collaboration in the forest sector. The regional planning process evaluates the spatial and environmental effects of larger projects, such as waste disposal complexes, mining projects, tourist villages, and overhead cables, resulting in a close interconnection with environmental audits. The process is headed by the regional planning administration. As soon as any project involves the forest sector, forest administration is invited to cooperate as the institution responsible for public affairs. The process offers the opportunity to elaborate land development conflicts concerning forest protection and forestry. This requires that all issues be duly taken into consideration, and the position of the forest sector has little influence.
- **The German National Forest Program** undertook its first attempt to create a national plan in 1999. Its task was to analyze the environmental, social and economic values of the forest, and to develop strategies and measures for sustainable forest management. The plan was to be elaborated with the broad participation of all interest groups in an interdisciplinary dialogue. Although the reference to regional planning is not pronounced, the national forest program is similar to a regional planning process in terms of its comprehensive, future-oriented goals. The national plan is also bound into international

agreements, such as the EU Forest Strategy, directives passed by the Ministerial Conference on the Protection of Forests in Europe, international tropical timber agreements, and the Biodiversity Convention, etc.

10.2. Formal Concept of Forest Land-Use Planning

The task of forest land-use planning lies in the political regulation of forest land-use development. The plans do not have any instruments available for the purpose of influencing the stakeholders. Instead they avail themselves of the pre-existing instruments, namely, informational, financial, and regulatory instruments. The special contribution made by the planners constitutes the mental anticipation of implementing these instruments:

Forest land-use planning is the future-oriented elaboration and implementation of forest-related regional development and its political regulation.

In accordance, planning reflects the forest-related regional development and forest policy regulation in plans. It elaborates regional development on the planning table and drafts various concepts for the future. Planning differs from regional development and policy regulation, however it is directly related to them. This difference gives rise to the strengths and problematic areas of planning. As it is detached from any immediate implementation, planning can follow rational principles more easily than practical policy making. Planning in the forest sector thus involves an in-depth regional analysis and discussion of goals. It examines numerous variants of regional development and compiles all the results in a complex overall depiction. With each further step in rational analysis and constitution of forest-related regional development, the planning process distances itself from regional development and politics. In practice, the interests of forest users in the forest are foremost, and so is their political regulation, which is primarily related to concrete conflicts, and less to overall goals. The implementation deficits are a sober indication of the contrast between interest-related and power-oriented (forest) policy making in forest sector planning. The more recent planning approaches thus make a greater effort to involve all of the stakeholders. However, this does not eliminate the contrast between efficient land-use planning and interest-related policy making. Instead, this is a planning factor which already requires attention in the planning process.

Land-use planning in the forest sector has to task of interconnecting goal-oriented rational land-use planning with the interest-oriented strategies of the political players:

- **Main Public Interest Goals**

The claim made by planning, in terms of design, is oriented to forest-related regional development which results from the diverse activities of the stakeholders. The utilization intentions of the stakeholders, whether they concern business operations or individual consumers, do not automatically lead to optimum regional development. The low productive values of forests often induces private owners to consider other methods of land utilization which result in higher financial yields. The public administration bodies for traffic and transportation, waste disposal or public utilities, also favor using the spatial reserves in forests. However, forest destruction reduces the protective and recreational effects of forests which are highly significant for the quality of living in the vicinity. Any regional development, which is unilaterally oriented to the interests of the individual stakeholders, would be mainly geared to the utilization goals of the influential business stakeholders and political players. Weaker interest groups are threatened with loss of their property, i.e. when a financially strong non-forest sector stakeholder buy up forests as land reserves. **In the case of individually oriented decisions concerning production utilization, public utilities suffer along with non-marketable goods and services, such as nature and environmental protection, as well as protective and recreational benefits.** However, conflicts also arise amongst the individual business operations, if excessive timber felling in mountainous areas poses a safety threat to forestry operations located at a lower altitude; or if scattered, small-scale forestry enterprises cannot afford to supply their buyers with timber; or large-scale protective forests limit the possibilities of timber production, e.g.

In general, as well as specifically concerning forestry, it can be seen that neither market regulation of land utilization, nor the public measures of special policy making, can lead to the ecologically and economically stable equilibrium aimed at by regional planning. Regional development theories show how the free market economy favors the formation of densely populated urban centers (with all their ecological deficits) and rural migration (with all the economic disadvantages), at least on an intermediate time scale (Maier & Tödting 1996). On the one hand, forestry enterprises in the densely populated areas are threatened with becoming "victims of regional development." And on the other hand, the forestry enterprises in the

areas of rural exodus lose their market partners (Glück 1982). Regional planners need to intervene in the scope of their public mandate. They can only succeed in as far as regional planning goals can be asserted despite the dynamics of regional development, which are driven by diverse interests. Regional planning is therefore not a matter of consensus. Quite the opposite, it is a task which involves a great deal of conflict. The more comprehensive the goals of regional planning are, the more often difficult conflicts will arise. The resistance of powerful stakeholders and policymakers has resulted in the failure of those regional plans which aimed at comprehensive goals (Scharpf 1973; Scharpf & Schnabel 1979; Ritter 1998).

If the land-use planning process wants to remain true to its public mandate, then it should not hope to achieve a higher degree of consensus with revised plans because, in terms of content, land-use planning pursues other aims than most stakeholders would prefer. The legitimization of forest land-use planning lies in its independent claim to development in the interest of the public. If land-use planning recommends exactly the same development that is already aimed at by the stakeholders, it becomes superfluous as a regulatory instrument. Forest land-use planning therefore needs to adhere to the conflict-ridden public goals. At the same time, it can reduce the conflicts to a tolerable level by limiting the goals of each of the forest land-use plans to focal points. Instead of the comprehensive optimization of forest-related regional development, forest land-use planning only touches upon one important task, such as forest rejuvenation, recreation in the forest, or nature protection in forests. These singular tasks meet up with less resistance than a comprehensive plan, and at the same time they provide a better opportunity to win over allies. Specialized planning manages without the rational ideal of comprehensive goals, however it nevertheless achieves better results in the regulation of forest-related regional development, due to its improved chances of implementation.

It is difficult for planners to manage without comprehensive goals, because these are particularly attractive in relation to rational planning considerations. For example, the new Regional Planning Act of the federal government of Germany, valid as of 1-1-1998, standardized the model of sustainable development. These standards further expand the target system of regional planning, which is already too comprehensive in comparison to its regulatory capacity. Additional conflicts due to the sustainable development standards, arising in disadvantaged regions and concerning the fulfillment of growth targets, will increase resistance to regional planning and reduce the practical implementation of regulatory effects (Gatzweiler 1999). Thus it would only be advantageous, if forest land-use planning were

to take over the comprehensive responsibility for sustainable forest-related land development according to the rational planning ideal. In the practical field, such a sustainable forest management plan might attempt to solve too many problems all at once, and would thus have less of an effect than a forest sector regional plan which is limited to central tasks.

- **Information Management for Awareness Campaigns, Problem-Solving and Negotiation**

Forest sector regional planning enables a more profound insight into forest-related land development than other political instruments. Free from the constraint of immediate implementation, planning can develop diverse analytical processes to describe forestry and the forest in relationship to their spatial context. The current regional plans in the forest sector are already comparable to forest sector data bases, which can be substantially improved by using geographical information systems and scientific spatial analysis processes (Streich 1998; Moiseev, Von Gadow & Krott 1997). Particularly due to the capacity of forest land-use planning to record, process and elaborate information, based on other forest sector planning instruments, there is a great potential for resolving land-use conflicts.

A description of the diverse consequences of forest utilization increases awareness, leading to new insights and changes in the behavior of forest users with concern to the forest. Awareness campaigns are most highly successful regarding the protective benefits of the forest in mountainous regions. If a planning team succeeds in demonstrating to a community that it would be threatened in the case of irresponsible forestry practices, forest conversion, or land development, this can substantially facilitate a voluntary reorientation in the danger zone along the lines of a preventative land development policy. Similar developments can also be expected concerning forest sector plans which illustrate the negative consequences of forest conversion in urban areas. Awareness campaigns are particularly successful regarding problems, because they are only comprehensible for those involved in the form of a planning analysis, e.g. new kinds of planning games (Kostka 1992). Not having to adhere to a plan can also promote forest land-use planning, because it promotes critical analysis and also dares to indicate negative consequences of forestry practices that formerly considered acceptable (Scharpf & Schnabel 1979).

The complex analysis of the forest and its spatial context increases opportunities for optimizing land-use development according to the expectations of diverse stakeholders. Simultaneously including land for

settlements, traffic and transportation, agricultural production, and nature protection, etc., in forest sector planning increases the chance of offering more to all of the stakeholders through improvements in land-use development. Solutions, such as this, should render forest sector planning clearly recognizable. In this aspect it would help to elaborate scenarios of forest land-use development with various time-frames, under the assumption of diverse general circumstances. A planning-based elaboration can help to create new forest products. For example, a good deal of forest-sector data has been offered to public and/or private clients as "ecological forest data" based on descriptive forms that are oriented to target groups. Measures described in plans for the improvement of the environmental quality of forests could become the basis of a product, such as "ecological forest compensation measures." Project sponsors have already been demanding such compensation measures, and are very willing to pay for them to fulfill their legal obligations (Krott 1997). These practical solutions require innovation from forest land-use planning. They are therefore promoted by diversified planning teams, which go beyond a circle of experts and have a certain margin of leeway in contrast to the administrative routine.

Practical solutions are directly associated with negotiating compromises. Planning presents a forum for the formal support of informal bargaining processes in administrative procedure. The comprehensive tool of forest-related land-use development creates a basis of negotiation for numerous bargaining processes. However the prerequisite for earnest compromises is the credibility of the plan and its capability to integrate the positions of various forest users. The more widely forest planning can incorporate utilization calculations for traffic and transportation, the immediate population, farmers, and environmental activists, and the more clearly it illustrates the common basis of these forms of utilization, the greater the chance for compromises will be. In contrast, limiting the depiction to forest-related goals does not help in the search for further solutions through negotiation of the forest sector plan.

- **Active Decision Making**

Planning leads directly to decision making, with data acquisition as the basis of the bargaining process. Forest land-use planning thereby takes over the binding regulation of land utilization conflicts which is actually reserved by policymakers. When considering the difficult political negotiation process, which has led to the development of forest policy instruments, it is clear that forest land-use planning would be completely overtaxed, if it had to replace

these political processes with a decision in planning. Binding decisions in planning are thus limited to additional decision-making processes, for which there is only enough margin in policy making, if the existing instruments no longer suffice to resolve the conflicts (Fietkau & Weidner 1998). The forest stakeholders in Germany have not yet found the problems so imminent that they have made use of forest land-use planning beyond information management to include active decision making (Krott 1990; Krott & Bloetzer 1997). Only those forest sector positions, which deal with general land-use planning, have contributed to binding decisions.

Active decision making in planning processes requires the willingness of those stakeholders, who are involved in the conflict, to participate in the planning process. This initiative can only be incited by a planning process which is fair to all parties and does not favor the goals of forest administration from the start (Claus & Weidemann 1994). The planner has to take on the role of a mediator. He or she is no longer the forest's advocate, rather he/she has to guarantee a neutral and competently based decision-making process. In addition to expertise on the forest and regional planning, he or she requires a great deal of social competency to be able to successfully moderate decision-making processes. The cost and effort of conducting the planning process is much greater in comparison to the simple process of information management.

The planners should not expect a general consensus as a result of their proposed forest-related land-use development. Even the best planning process cannot simply eliminate the conflicts of interest in the limited space available. Opposing interests can only be brought closer together via planning processes, as an exception (Twight 1983). However, participation makes it possible to set up a network of stakeholders interested in a certain topic. To ensure equal representation of all the important positions, it is important that the planners let those involved participate actively. A network involves stakeholders with various interests in forests, from timber production, to hunting and environmental protection or forest conversion. All the contrasting standpoints have a modifying effect on each other and promote a position which may be a compromise for all of the stakeholders involved. A planning process, which is facilitated by the participation of those concerned, makes it easier to win over allies for well-balanced goals in forest land-use and helps in resisting unilateral demands resulting from opposing positions, whether they be profit-related interests or strict environmental protection. Since there are many advantages in supporting the legally standardized goals of multi-functional forest management via participatory processes, this active decision making in the scope of forest land-use

planning represents a future development potential which is not currently being put to full use by planning teams in practical terms.

- **Multi-Level Strategy for Networking Planning Contributions**

Broad-scoped participation in planning does not guarantee a consensus. On the contrary, the greater the number of participants, the greater the risk that the increasingly complicated planning process will become blocked. Planning with the participation of a great number of highly diverse private and public participants can no longer be implemented as a closed and rational process of goal determination and optimization of measures. However, practical policy making has developed a procedure for complex planning processes, which has been described as a "multi-level strategy" in terms of its principle of operation (Benz 1992). The regional programs of the European Union, in particular, are confronted with the problem of interconnecting the European level with the national, regional and local levels on the basis of very limited regulatory competencies, as well as including both public and private stakeholders in the planning process. The factors of the multi-level strategy are also significant regarding complex forest land-use planning tasks, e.g. in the form of national forest programs (Benz 1999).

The central planners in top-level administration limit their planning activities to 1) specification of general principles for regional development; 2) linking the centrally administered financial support to these principles; 3) introduction and support of cooperation processes; and 4) evaluation of the planning results. The lower national and regional administrative levels are at liberty to deal with these guidelines according to their own discretion. The lower administrative levels compete in proposing innovative measures and suitable cooperation amongst the individual planning processes. They may receive financial support from central administration, if they adhere to the principles and participate in financing. Central evaluation involving public scrutiny puts additional pressure on the lower administrative levels to implement their own chosen planning standards in detail and use the opportunities for cooperation. By limiting the unenforceable comprehensive planning requirements to a few central contributions, central administration maintains control over the actual planning process in practice.

The work-sharing multi-level strategy illustrates how the democratic planning ideal of the "counterflow principle," according to which all participating levels should voluntarily and impartially coordinate themselves, can at least be partially implemented by using suitable

information and power strategies in planning. The multi-level strategy could also help with the complex forest-related planning tasks involving the European Union, the national government, the individual states and the local initiatives in forest land-use planning in Germany.

- **The planning process as a critical-rational contribution to policy making**

The above-mentioned strategies involve drawbacks from the ideal of comprehensive regional analysis and target-oriented regulation for the purpose of improving the implementation of the plans. However, the reduced efficiency of forest land-use plans also goes beyond the capacity of policy making. The implementation of forest land-use plans cannot help but lag behind the planning efficiency standards. If a planning process, which remains true to the ideals, thus repeatedly fails in political practice, this does not mean that the planning concept as such is without purpose.

In the first place, failure indicates that a planning process actually requires higher efficiency standards, and this very requirement forms an independent contribution to forest land-use planning. Through joint processes (Selle 1994), the planning process may be similar to other political instruments, however it only attains an independent significance through its orientation to efficient planning standards. Secondly, the planning process has a better opportunity of making renewed attempts at efficient regional planning, after encountering a failure, than all of the other political instruments. Because it is removed from politics, the planning process has room to experiment, which it can repeatedly use for critical analyses of regional development and its target-oriented regulation.

The repeated attempts to optimize forest-related regional development according to rational principles and public goals, in the face of interest-oriented politics, constitutes the core of the concept of forest land-use planning as a process. The planning requirements constantly provide new critical-rational regulatory impulses for the other political instruments. The planning process requires flexibility, as well as the continuing orientation to planning ideals, because whenever a planning process has flexibly and inconspicuously aligned itself with the existing regional planning policy, it has lost all meaning and become a useless public exercise. The forest land-use planning process cannot succeed unless forest sector policymakers recognize that it is not sufficiently in keeping with forest land-use policy, and the pressure of problems leads to a new planning approach.

10.3. Informal Implementation of Land-Use Planning

On an informal scope, the informal goals of the individual stakeholders are added to the goal of efficiently regulating forest land-use development. The public concept of regional planning is not refuted, however the usefulness of regional planning in achieving one's own informal goals is at the center of attention. Forest owners informally refuse any limitation of their own freedom of action through the planning process. And the planners in forest administration do not want to have their informal goals – i.e. securing resources, maintaining their autonomy and avoiding conflicts - endangered by forest land-use planning (Krott 1989 & 1990). Forest-related regional planning is highly influenced by informal strategies:

- **Symbolical planning and non-decision**

In general land-use planning, as well as in forest land-use planning, the strategy of symbolical policy (previously described in the chapter on programs) is often employed. The goals of forest land-use planning signalize a positive future for forest land-use development improving all the positive effects of the forest and benefiting all forest users. In addition, the plans also describe several measures which are to ensure that the goals are met. The positive content of the plans is emphasized by means of visual illustration. For example, a forest function map paints a very positive picture of how comprehensively the forest "functions" in view of society's diverse expectations (Krott 1985). On the whole, plans that draw on vast expertise imply that policy making ensures regional development. Since the stakeholders' personal experience of complex, regional development on a national scale cannot provide them with a comprehensive picture, stakeholders hardly have an opportunity to critically analyze the trust they have in the plans. They have to limit their judgement to their overall evaluation of the plans. This increases the influence of trustworthy symbols.

The positive symbolism for competent regulation of forest land-use development contrasts with the low regulatory power of the plans in terms of content. With very generally formulated goals and measures, which are contradictory in themselves, the regional planning process attempts to avoid conflicts with powerful stakeholders by giving all of the stakeholders the opportunity for development. However the uncertain content of such plans results in the informal power strategy of the "decision for non-decision" in regional development (Naschold 1978). These regional plans symbolically claim to have made a future-oriented decision to secure regional development. Yet they only achieve this to a small degree, and at the same

time they make it impossible for more highly efficient policy plans to be made. This form of non-decision, which is widely seen in general land-use planning, also characterizes forest land-use planning. Forest land-use plans symbolize successful forest-related land development, however, due to their lack of significant content, they actually allow forest land-use development to be regulated by individual political decisions based on other instruments.

- **Counter-planning**

Regional planning makes a claim to comprehensive development thereby competing with the special fields of policy making. In orientation to the goals of regional planning, the concept of regional planning also includes actively influencing developments in the forest sector. To avoid heteronomy, each sector has developed its own independent special planning process for the purpose of implementing its land-use planning competency in its own field. Specialized planning informally deters the influence of regional planning. Forest-related regional planning also includes the informal strategy of counter-planning. Forest land-use planning is intended to ensure that public forest administration remains as independent as possible from general land-use planning.

The strategy of counter-planning explains why general land-use planning has given rise to comprehensive land-use planning activities in all sectors, yet has nevertheless found no support for this. On the contrary, general land-use planning has not yet been able to assert itself in the face of the specialized planning processes which are backed by influential stakeholders in each sector.

"National forest programs" are currently using the strategy of counter-planning to attempt to maintain the autonomy of the forest sector in the face of international forest protection campaigns. With the help of a national sustainable management plan, forestry stakeholders in Germany are trying to publicly demonstrate that the forest sector does not require any external environmental protection planning with concern to this issue.

- **Lobbying Campaigns**

Informal usability calculations have lead forest administration planners to find a further strategy. Forest sector land-use planning is a suitable instrument for introducing selected planning and development goals of forest administration into the general land-use planning process and public discussion. Forest sector land-use planning, for example, can promote

afforestation by dedicating additional lands for the purpose. This would therefore be in keeping with the important forest sector goal of increasing forestlands, although it is hardly oriented to other land-use planning goals, such as conserving agricultural lands or environmental protection.

Lobbying campaigns promote the interests of forest administration and facilitates the implementation of other forest policy instruments. This sectoral perspective is often in conflict with general land-use planning, at the same time, however, it signals those areas in which the sector also informally supports the planning goals. In as far as lobbying can be integrated into the models of general land-use planning, regional planning can find rare instances of support. In the forest sector, potential common goals can be found regarding sustainable management of natural resources and certain issues of environmental protection by using the renewable resource of wood, which does not adversely affect the climate. Regarding these issues, forest sector planners might ally themselves with general land-use planners to gain additional political support for forest sector goals.

The informal strategies of symbolical planning, non-decision, counter-planning and lobbying can be simultaneously implemented alongside each other in forest land-use planning in practice. This would permit the development of a forest sector regional plan which signals planning competency by virtue of its existence, using comprehensive data and color-coded maps, leaving little margin for conflict, precluding other forest land-use plans, and making stipulations in certain areas, such as afforestation. The forest land-use plans, which are found in practice, come close to this informal ideal. However, their informal orientation reduces the implementation of the plans for the purpose of rational progress in forest land-use development. As long as forest administration and other influential forest sector stakeholders succeed with their informal strategies, they will see little reason for risking the conflicts and limitations of a critical-rational planning process which would overtax the established political instruments. Only the political pressure of problems resulting from misguided forest-related land development, or highly competitive regulatory proposals made by environmentalists or general land-use planning, will make it informally appear beneficial for forest administration to improve the regional planning competency of the forest sector with the above-mentioned formal strategies, to secure threatened forestlands for the forest sector, as well as securing the benefits of the forest for the regional population.

10.4. Further Forest Policy Research

Forest policy research on the topic of land-use planning adheres to the changing developments in forest land-use planning. The 1970s marked the beginning of forest land-use planning which was accompanied by conceptual publications (Zundel 1966; Kohler 1979; Essmann 1980; Holländer 1981). The political limits of land-use planning were analyzed by the studies published in the 1980s by Niesslein (1981) and Glück (1980), as well as Krott (1989) according to the example of Austria. In the following years, forest land-use planning activities decreased; and forest land-use planning became even less attractive as a topic of forest policy research (Niesslein 1985; p. 105). Around the year 2000, forest policy researchers investigated two issues of forest land-use planning anew. Following Petersen (1982) and Krott (1990), Weber (1999) discussed participation, which is closely related to planning, as an important principle of forest policy. Glück, Oesten, Schanz & Volz (1999) elaborated significant problems of forest land-use planning according to the new concept of national forest programs. Their comprehensive explications deal with the planning experience in the various countries of Europe, and new approaches in planning theory. The application of this theory in empirical studies on current forest land-use planning has yet to take place. Bachmann (1997) programmatically introduces a new planning concept for Switzerland which has yet to be proven in practice, as well as to undergo a critical forest policy evaluation.

The studies on forest land-use planning remain closely related to general land-use planning research. The planning process and political processes described therein are also found in forest land-use planning. Three approaches in current planning research are particularly important with concern to forest land-use planning. First of all, general land-use planners are still attempting to consolidate the sector, as well as the planning processes and planning research (Spitzer 1995). In this area, forest land-use planning has only made little progress over the past decade, and lags behind fast developing forest management, in particular. Including forest land-use planning in general land-use planning and forest management constitutes an interesting research approach. And land-use planning law, as well as technical land-use planning processes, have developed very quickly despite the lack of consolidation in planning theory (Akademie für Raumforschung und Landesplanung 1999). Impulses for forest land-use planning research can be found here, particularly in the discussion concerning land-use planning. Furthermore, land-use planning research and theory are opening up vis-à-vis the political process. Creating a uniform planning theory is less import to many authors than integrating political planning factors (Hanisch

1997). Political planning analysis is closely related to the political analysis of the state's margin of action, whereby cooperative forms receive a lot of attention as reform strategies (Selle 1994; Benz, Scharpf & Zintl 1992; Zillessen, Dienel & Strubel 1993; Lamb 1995; Fietkau & Weidner 1998). Planning research is thus returning to the key issue of political regulation, which should renew the interest in forest land-use planning as a research topic in forest policy studies.

The political agenda of national forest programs has reawakened the interest of forest policy researchers in planning processes in many European countries. The key publications in English on this subject are listed in Chapter 3 on programs. They mainly deal with current planning topics, such as public participation, strategies for implementation, and the role of the state in public planning (Appelstrand 2003). Another topic examined by English-language publications is forestry in rural development (Selman 1996; Elands & Wiersum 2001; Hyttinen et al. 2002). Further important publications mainly deal with planning issues from the perspective of planning and economic theory (Hyttinen et al.; Helles et al.).

CHAPTER 11

POLITICAL SYSTEM AND POLITICAL PROCESS

11.1. Political System

Forest policy, i.e. the social regulation of conflicts of interest, is only possible with the cooperation of all stakeholders and implementation of the various regulatory instruments. Politicians and administration bodies on the one hand, as well as associations and individual citizens on the other hand, are directly involved in forest policy making (cf. Illus. 8).

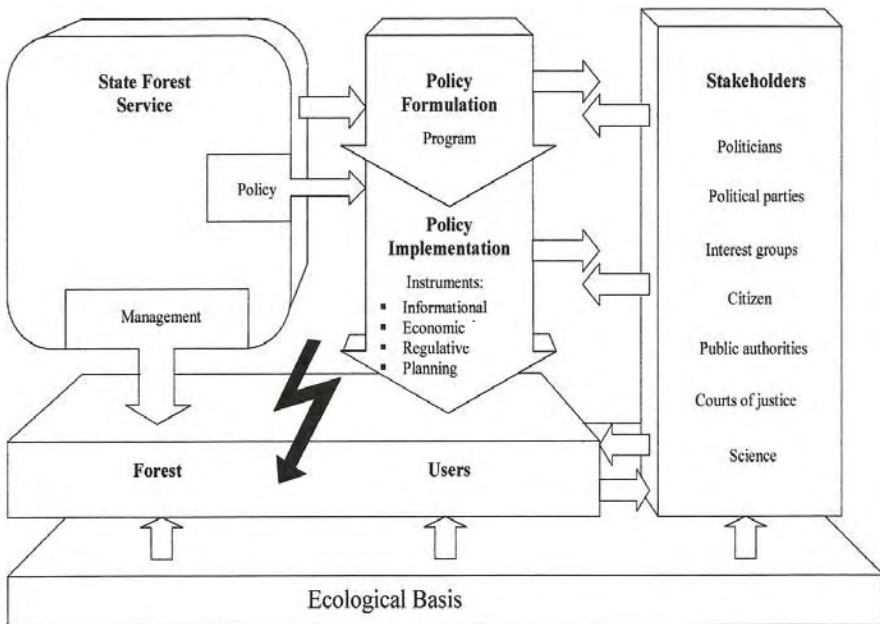


Illustration 8: Policy Making in Forestry

Based on its forest policy mandate, forest administration takes on a dominant role. It serves towards realizing the public goals of forest policy, both through managing state forests, as well as by enforcing the forestry programs

across the entire country. Enforcement is primarily controlled by legal programs which are formally enacted by the politicians in parliament, yet are decisively formulated by politicians in government, special administration and the associations. Those who use forests, primarily the various forest owners, are targeted by the regulatory functions. Furthermore this would include those seeking recreation and environmentalists, as well as settlers or wood-processing companies. However it also includes those companies whose emissions have an impact on forests and forestry. Forest policy measures attempt to settle conflicts of utilization. The result depends on the political power of assertion, in addition to the ecological factors which enable forest growth and make it possible to utilize a forest in the first place.

The overview in Illus. 8 depicts the interrelationship among the major pillars of forest policy in a familiar manner. The cross-influences indicated by the arrows can be observed in all their diversity in daily politics. It is expected of forest policy studies that it details the impact of the stakeholders and their instruments, as well as describing and explaining their interactions. The impact on the respective stakeholders, as well as the programs and instruments, have already been described. Their interconnection in the framework of a forest policy system now requires the information and power processes that form their basis to be depicted.

The entire complex of the stakeholders and their activities forms the political system as depicted by Easton for the first time in 1965:

The "political system" designates the political players and their interrelationships, according to general systems theory, resulting in the overall behavior of the system.

In systems theory, politicians and administration (the so-called "political-administrative system") and society (constituted by the public and its organizations) are confronted with each other (cf. Illus. 9). The political-administrative system performs services for economy and society. On the other hand, it is supported by society, yet it is also subject to society's demands.

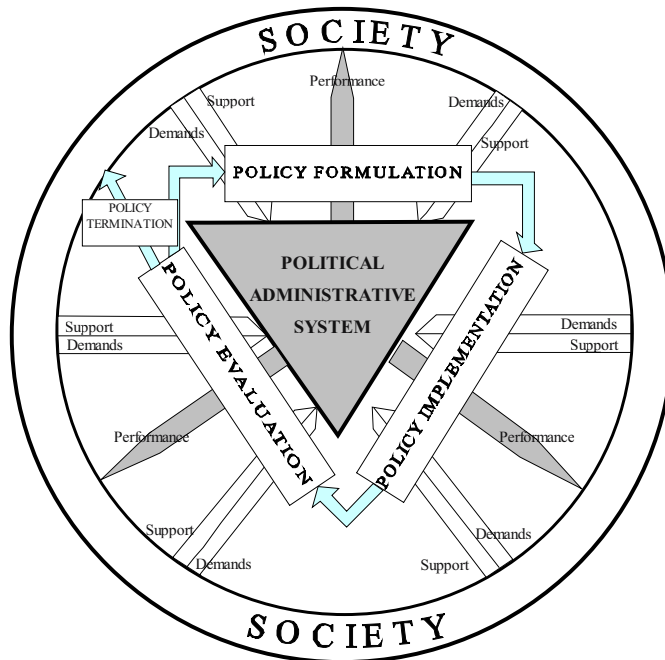


Illustration 9: Policy Making in the Political System

The political-administrative system regulates conflicts of interest. For this purpose, it employs the above-mentioned informational, economic and regulatory instruments. The political-administrative system makes binding decisions regarding conflicts between those who benefit from forests, thereby relieving these social groups from on-going conflicts. Without the political-administrative system, society would have to employ other mechanisms for the purpose of conflict resolution. Continuous, unregulated conflicts would have burdened society to the extent that it would neither have been possible for civilizations to develop, nor any regulated forest management or forestry worth mention. Despite the fundamental importance of politics, it should be remarked that a great number of institutions and systems regulate conflicts among people, in addition to the political-

administrative system, for instance our economic system and our moral system. Politics only constitutes one regulatory system among many in the forest sector.

The performance of the political-administrative system gives rise to society's demands and support. Many different groups hope to profit through politics. They therefore lobby the politicians to make certain decisions and support certain goals in their favor. Confronted with new problems, such as the threat to the forests, it is taken for granted that protection must be sought from the political-administrative system. However, business groups also approach the political-administrative system with their issues. The system is thus constantly subject to a great number of basically contradictory demands which require highly complicated regulatory intervention. The demands are heightened by means of threats. Interest groups use all their available instruments of power to convince those responsible to make political decisions in their favor.

The political-administrative system is also supported by society. It requires material contributions from society to survive, particularly in the form of taxes, since political work alone cannot produce any goods, although it does require a great deal of goods to run government.

Immaterial support gives the system the indispensable legitimization required its institutions and actions require. In democracies this legitimization is secured through elections and publicity.

The special feature of political systems theory, in contrast to other political concepts, lies in the control systems or feedback between the political-administrative system and society. The performance of the system contributes towards solving problems in society. In return, society grants the system both material and immaterial support. This support is processed internally by the political-administrative system under consideration of the demands made on it. As a result, the system improves the measures it takes to benefit society, which in turn gives rise to renewed support and demands on the part of society, and so forth. This basic system of feedback between input (demands and support) and output (regulatory instruments) is the driving force of politics.

The most important purpose of this feedback is the survival of the political-administrative system. It always seeks an equilibrium between the supply and demands made by society, which gives the system sufficient support in turn. The political-administrative system cannot be expected to make

decisions to the detriment of its own survival. This is the great difference between political systems theory and the view that politics simply follows the goals it considers to be right (standardized), e.g. sustainable forestry. According to systems theory, political output for the forest sector can only be expected, if these measures help to maintain the status quo of the system.

The support society provides naturally depends on the political solutions achieved, e.g. on their success in the forest sector, as well. However, systems theory clearly indicates that successful solutions have an indirect, instead of direct, impact on the political-administrative system through society's input. This system of cause and effect is highly diversified and often leads to unexpected interrelations in the system as a whole.

Systems theory always grasps politics as a whole, deeply involving society. Based on system control and feedback, it depicts very complex regulatory or self-regulation processes in politics (Luhmann 1976; Willke 1995). Although there are a great number of independent variants of social systems theory, they are all highly abstract and their messages are very general. It has therefore not yet been possible to transfer this knowledge from a general scope to the specific scope of a certain policy field, such as forest policy (v. Beyme 1995). The recent concepts for the purpose of connecting systems theory with local political regulation (Burth 2000) clearly show how much developmental work is still needed so that empirical research in a certain policy field is possible as a direct application of systems theory.

Another large area of the systems concept is constituted by general systems theory which links together various aspects. Such system analyses integrate social, economic and ecological processes with the promise of interdisciplinary solutions which can also be applied to forest management (Bruenig et al. 1986). An important branch of policy analysis developed in the United States, namely policy science, focuses on interdisciplinary problem analysis and favors general systems theory (Windhoff-Heritier 1987). However due to a lack of focus on political processes, these concepts of system analysis are not suitable for describing or explaining forest policy.

The major achievement of political systems theory was to broaden the analysis from those directly concerned to include the general political context (Peters 1995). This registers politically relevant connections better than the traditional analysis of individual political institutions, such as forest administration, for the purpose of solving forestry issues. Systems analysis

broadens the perspective to include associations, politicians and business stakeholders, as well as the relevant instruments. It thus provides policy studies with a general framework for orientation (Schubert 1991). Within this scope, however, policy studies require a theoretical foundation which is more closely related to the stakeholders and their actions, as well as the content of (forest) policy, in particular.

11.2. The Political Process of Problem-Solving

The practical focus of politics is to solve pending issues. These issues often give their names to the policy fields. In connection with resolving the issues in the forest sector, one speaks of forest policy.

These issues are resolved in the course of two general phases which follow logically: formulating and implementing policies (Windhoff-Heritier 1987). Formulating policies defines the problems to be solved. In addition, it formulates the paths that lead to a solution. Implementation is the practical application of formulated programs to the issues, thus contributing towards a solution. Together, formulating and implementing policies result in a complete and strictly rational process of problem-solving. If an evaluation phase is added, the political process is completed by a feedback cycle (cf. Illus. 9). In the evaluation, the impact of political measures is evaluated regarding the protection and utilization of forests. According to the results, the goals and measures defined by the programs are discussed anew and improved. The issue may also have been entirely resolved which results in the conclusion of the political program.

These four phases represent the logical sequence of rational problem-solving, however, they do not each run separate courses. In well-developed policy fields, such as forest policy, with traditionally established programs, the three main phases coincide simultaneously concerning individual issues, albeit with a varying intensity. Enforcement takes place routinely, whereas individual attempts at reforms are repeatedly being made to activate policy formulation. Once evaluation has begun, it is also an on-going process, since politicians make an effort to evaluate their opponents' policies as failures at any given opportunity. The value of the phase model lies not only in its historical definition, but also in its clear classification of activities into a certain phases sharing typical courses that are individually variable.

The rational model outlines a standard gauge for social problem-solving which can be compared with democratic norms, on the one hand, as well as

political practice on the other hand. The major features of this model are the setting of goals, measures and decision-making processes by the central policymaker. The programs are designed according to his or her know-how and decisions. The programs set up binding stipulations to be enforced over the entire territory of the nation, which affect all forest owners, according to the maxim that similar cases are to be treated similarly, while dissimilar cases are to be treated differently. Political measures are stipulated and predictable, and they can be scrutinized by anyone.

This kind of policy work closely adheres to the norms of parliamentary democracy in Germany. The democratically elected parliament passes legislation defining the forest programs which are then to be implemented as closely as possible according to the law of the Federal Republic of Germany. The democratic quality of politics "from on high" lies in the election of parliamentary representatives and government, in publicity and the participation of expert officials and associations. Legislation developed in this manner has to be enforced as objectively and rationally as possible, to equally legitimize democratic decisions over the entire territory of the Federal Republic. A contrasting model would constitute politics "of the people" (Peters 1993). This aims to secure democracy by enabling those concerned to participate in local political regulation, in the most comprehensive manner possible. The instruments that serve this purpose are 1) participation processes involving information and partial decisions; 2) framework decision made by the centers in the form of target agreements with a free choice of the means; and 3) market processes or quasi markets with purchasing decisions for public services. The high democratic quality of politics "of the people" is unquestionable. The more widely this is practiced, the greater the contradiction to the legally binding nature of enforcement in parliamentary democracy, because this comprises interest-motivated regulation by those who are locally involved. The rational model of the political process directly complies with the democratic model of politics "from on high," however it may also demonstrate those divergent processes which enable democracy of the people. To facilitate a political-scientific analysis free of any value judgement, it is decisive that both of these political processes are understood, in as far as they exist. Furthermore, they should avoid passing their own judgement on the question of which of the above types of democracy or which combination thereof is to be given preference. The objection to technocratic perfection of political authority in the form of special policies, which do not involve grassroots participation, is

justifiably raised against the unilateral implementation of policy research as a legitimatization of democratic politics from on high.

The practical courses taken by the models differ from their evaluation, since the empirical development of forest policy does not, by any means, only adhere to the rational concept. The various stakeholders cannot agree upon a clear and uniform approach. Instead, they each attempt to realize their self-interests as best they can, while taking into account the fact that policy formulation can only provide incomplete and contradictory programs. However those stakeholders fearing disadvantages refuse to accept implementation according to program. Therefore implementation always lags behind the program objectives. The problem-solving model is nevertheless helpful, because it comprises a concept for effective and targeted political problem-solving. As a benchmark for the practice of problem-solving, the policy model focuses on the analysis of all the critical issues. Successful contributions to problem-solving are just as clearly apparent as failures, where individual interests have distorted the problem-solving process partially laming it. Based on diagnosing the deviations, policy theory explains failures and provides those, who want to pursue the concept of efficient forest policy, with improved political strategies.

11.2.1. Policy Formulation

The phase of policy formulation is at the onset of forest policy. It is usually a reformulation of previously introduced forest policy programs, whereas only rarely does an entirely new issue become the subject of forest policy negotiations, such as forest damage policy.

Policy formulation is that phase of political problem-solving which determines the issues to be resolved and standardizes solutions in the form of programs.

Problem definition involves selecting the most important issues from amongst the great wealth of them. Since undesirable developments and problems also far surpass the problem-solving power of politics in the field of forestry, it is absolutely necessary to select certain pressing issues. At the

same time, this selection also means that many issues are not dealt with and cannot count on political support.

The selection of issues depends on the stakeholders involved, the aspects of the issues and the manner in which they are brought to attention (Peters 1982):

- **Stakeholders**

In as far as wide circles of pluralistic interest groups can introduce their various problems into the political process, they will confront the political process with their diverse issues. Pluralistic access to problem definition ensures that the political-administrative system also hears of important issues of the smaller or weaker groups. German politics only provides such pluralistic openness to a minor degree (Ismayr 1997). There it is mainly the elite who define the problems. They have privileged access to the political process, particularly via their connections with political parties, so that they succeed in having their issues acknowledged as the "most important." In keeping with their character, the elite always hold a conservative view of issues, which geared towards conserving the *status quo*. They do not introduce new issues or solutions. Administration is another important stakeholder for indicating problems. It is already at the center of the political-administrative system, and therefore does not need the media to make its issues the subject of a political process. The low public profile of administration's tasks should not mislead one concerning the great influence it already has on problem definition.

- **Aspects of Problems**

The chance that a problem attracts the attention of politicians depends on its special aspects. Short-term dangers threatening a large number of people with visible consequences attract attention more easily. When widely recognized values or symbols are violated, the reaction may be spectacular. Any similarity to current problems further arouses attention for this type of problem. The critical discussion regarding the threat to the environment also contributed to the discovery of forest die-back, since awareness for this type of problem was especially heightened for a period of time (Krott 1994 (2)). Long-term, less visible issues, which are not associated with any particular symbolic meaning, therefore receive less attention from politicians.

One important aspect of a problem is the feasibility of a solution. As long as there is no solution in sight, an issue is not brought up for discussion. Such issues, no matter how much of a burden they may be, are simply taken for granted. For instance, no one expects policymakers to speed up tree growth to only ten years until full maturity to solve the business problem of long turnover periods and capital tie-up, simply because this is considered impossible. If such a solution were to become possible, for instance by means of genetic engineering, a violent political discussion would be certain to ensue. Many forestry issues were only taken up after new means of dealing with them were recognized. Progress resulting from forest research and technological solutions cannot replace politics, instead it is the driving force of old and new political controversies.

- **Agenda-Setting**

Agenda-setting puts problems on the political agenda. The media play a large role in this process which was already described in the scope of informational instruments. Stakeholders compete with each other to lobby politicians to see the problems from the stakeholder's point of view.

A particularly effective strategy, which can be used before any competition for the better argument sets in, is to hinder seeing negative consequences as politically alterable issues. That is to say, issues, which are not recognized as such by those concerned, do not play a role in the competition for political attention. Bachrach and Baratz (1977) indicated this mechanism impressively in the scope of their research on the causes of poverty. As long as the poor do not perceive their disadvantages to be a political consequence which can also be altered through politics, but as their "destiny according to God's will," they are not in a position to bring up their problem for discussion. The political-administrative will thus see no reason for dealing with the issue. This does not mean that the poor do not perceive their poverty as a burden. They surely are suffering, however they may not be in a position to define their problem. For a long time, a similar silence was perceived in the case of those suffering from the air pollution. This means that the perpetrator has an advantage, since problems that are not brought to attention are not dealt with politically. As a result, no decision is made regarding these issues. The lack of decision, which arises because an issue is not brought to attention, always favors the perpetrator, and is a commonly implemented political strategy.

The stakeholders, the aspects of the problems and the dynamics of agenda-setting constitute only a few basic factors determining the leeway forest

policy has in terms of political formulation. In practice, the actors form advocacy coalitions (Sabatier 1993) based on certain forest policy issues, such as nature protection or taxation. These remain active over decades, and their stakeholders stubbornly try raising their issues on the political agenda. The forestry stakeholders in the coalition constitute a few opinion makers from the elite of the forestry associations and special administration. The opposition also comprises a few opinion makers. Both sides determine the action they will take according to key principles and secondary factors supporting the realization of their major concerns. The key principles of forestry are based on central forestry goals and values, such as forest conservation, multifunctional forest management, private ownership and sustainability. However, they are also linked to the interests of forestry stakeholders, such as safeguarding their autonomy and increasing their own resources. The key principles are not up for disposition. Only the secondary aspects can be altered by raising awareness concerning the interrelated nature of the issues, better negotiation and improved solutions in the controversial programs. By this means, new scientific findings on the environmental impact of non-indigenous tree species, or new models for contracted nature protection, can bring new life into discussions on nature protection programs. However, the basic conflict-ridden positions of forestry advocates and environmentalists are not affected by such negotiations. Hopes that common experiences will give rise to new, improved policies and help settle the conflicts are not fulfilled in practice. The two opposing advocacy coalitions will only agree on new basic issues, if outside pressure alters their positions in terms of resources or power. Important outside factors are the basic technical-ecological aspects of the problem, the distribution of forests as a natural resource, socio-cultural values, the legal system, public opinion, the opinion of the media, as well as the impact of other policy fields. Since these factors are stable over decades, forest policy formulation takes place in a limited scope. These limits are rarely surpassed in the face of outside changes which create room for new political program content. Some examples of outside changes, which might give a new impulse to the well-functioning forest policy advocacy coalitions, are an increase of nature protection policies for forests, the effects of international sustainability policy, the declining earning power of timber production, or the reform impulses of public administration. The concept using advocacy coalitions aptly characterizes many forest policy efforts related to policy formulation. However, apart from very few exceptions, there are not any relevant forest policy analyses available (Elliot 1999).

The political-administrative system responds to defined problems by **formulating programs**. These usually stipulate solutions in the form of laws. Politically it is, of course, more difficult to come to an agreement on a program, than to raise a specific issue, since the solutions have much broader consequences for those involved than the definition of the problem, itself. Politicians therefore usually set up only very incomplete programs, such as have been described in detail further above.

In Germany, 'incrementalism' also characterizes program formulation (Lindblom 1959; Richardson & Jordan 1979; Schubert 1991). Instead of future-oriented goals and instruments, program formulation deals with minor changes of existing programs.

Typically, politics do not take novel solutions into consideration at all and waive any comprehensive problem analysis. This irrational behavior takes on the quality of a power-oriented strategy when the pluralistic interests are considered, such as described by "incrementalism." Based on the existing program, policy formulation tests the capacity for consensus in the face of minor changes. The targets of the program are up for discussion, just as each individual instrument is. The optimum synchronization of targets and instruments is less important in contrast, because program formulation will accept contradictions, seeing as a consensus must be found with powerful interests.

Comprehensive impact analysis and novel solutions make it more difficult to arrive at a consensus, since they further increase the controversial points by bringing the concern more to light. Comprehensive impact analysis makes many interest groups aware that they will lose in the face of a specific law. Programs, which leave everything as it was in a partially accepted stage, have a much greater chance of success. These small, incremental changes of that which already exists are favored by the political-administrative system, because they render it unnecessary to make to an unstable compromise with influential interest groups.

Similar to problem definition, problem aspects and stakeholders also play an important role in program formulation. Formulating a program requires the stakeholder to have a better overview and knowledge of the details than it does for him to raise a controversial issue. This can hardly be achieved mastered in forestry without the special political know-how of forest administration. Even those issues raised by interest groups or the elite come under the jurisdiction of administration in the phase of program formulation and are subject to the officials' direct influence.

To contribute their specific expertise, scientific experts sometimes also participate in program formulation. Informally, experts also lobby for those interests which are near them. By referring to their conclusive arguments, experts can ease the conflicts between interest groups without waiving their own positions of interest, since political decisions like those required for program formulation cannot be made without reference to values and interests.

The particular aspects of the chosen instruments also take on a special meaning in program formulation. Theories on the choice of instruments emphasize four aspects (Howlett & Ramesh 1993): 1) The resource intensity indicates the administrative costs and the difficulty involved in implementing the instrument. 2) The target precision describes how precisely the instrument can be tuned to particular problems. 3) The political risk involves the support or resistance regarding the new instrument, as well as the prediction of a possible failure. 4) Finally, restrictions are also significant for the new instrument in view of the legal system and the predominant ideologies. These factors characterize the current privatization reform efforts, which also leave their mark on forestry. For instance, the state is bound to select those private instruments, which are less costly and risky, although they cannot be as closely geared to the public goals of forests. And last but not least, the restrictions set by the predominant values and legal norms in forestry also have to be taken into account. The economic optimization of forestry instruments and administration only plays a subordinate role in the political decision pro or contra privatization. In contrast, the political aspects of instruments indicate those conflicts which are the deciding factors in policy formulation regarding to whether and how new instruments are to be introduced. Advanced forest policy analyses that apply the complex theoretical concepts of instrument selection to forestry are very limited in availability (Weiss 1999).

11.2.2. Implementation

Whereas policy formulation achieves its objectives by setting the goals and instruments to be employed, implementation directly intervenes in business and society. It alters the behavior of those who use or protect forests. Only when implemented, do politics contribute to solving problems. This fact is commonly overlooked, and the drafting of legislation is already celebrated as

the solution to pressing issues in forestry. Whether or not the expected or promised effects can be achieved will entirely depend on implementation.

Implementation describes the problem-solving phase which follows policy formulation and involves individual enforcement based on a program.

Implementation requires the stakeholders to take action according to program. It affects two groups of stakeholders: those in the political network and those in the political arena.

The **political network** is formed by all those stakeholders who have been formally designated as being concerned or involved in the program. Either they are to take action according to the objectives, or they are to participate in implementing the program as law-enforcement agencies.

The most simplest political network has self-implementing programs (Windhoff-Heritier 1980). Such programs stipulate regulations for those concerned and direct them to act accordingly. In this case, the network only involves those concerned, who are expected to follow the program themselves. One example is the general requirement for proper and sustainable forest management, which the forest owner has to follow by himself without any instructions or supervision by the authorities.

Political networks comprising those concerned, as well as the law-enforcement agencies, are much more common. Most forestry programs provide for at least one institution which monitors the enforcement of the individual rules and prohibitions. More than one law-enforcement agency may be involved in implementation. The influence they have on enforcement may then more highly depend on the existing relationships between those agencies. In hierarchical networks, the superior agency ensures that its orders are fulfilled lowest of its offices. For instance, this would apply to a public forest administration body which heads several forestry offices.

In coalition networks, those institutions involved are not directly dependent on each other. Each institution makes use of its own margin for action. All those involved have to negotiate with the aim of joint action in keeping with the program. This makes it more difficult to enforce uniform objectives.

In practice most programs require very complicated political networks where various institutions take on specific tasks. As a result, each of the participating institutions contributes towards implementation. However, the results inevitably deviate from the program objectives. The structure of the political network greatly influences the enforcement of programs. For instance, the results will differ depending on whether a law is enforced by a federal office or municipal and regional offices. Municipal offices have to take far more consideration of local issues than do federal offices.

In addition to the formally stipulated network in the program, an informal network forms in the course of implementation. As described on the basis of the individual political instruments, informal enforcement involves a selection of private and public stakeholders differing from those in the formal network. Individual stakeholders may seek new partners and broaden the network. More commonly, however, influential stakeholders attempt to secure their position by informally discussing enforcement in a small circle ahead of time. Limiting those involved in a network is one of the most important informal power strategies (Krott 1990 (1), p. 73). Groups that are passive, or turn down an offer to participate, are threatened with isolation. In as far as this is concerned, an attractive apolitical position presents a risk to forestry enterprises as well as forest officials, and it is only useful as long as the stakeholders can gain sufficient economic power from the market and do not require political support. This is also valid regarding environmental protection networks, unless forestry stakeholders can establish their own opposing network, as is currently being attempted in the form of the certification scheme initiated by the Pan-European Forest Certification Council.

Stakeholders put a great deal of time and energy into establishing informal networks and formally securing them by anchoring them in programs. These networks include the exchange of information, decision-making processes and negotiation of power strategies (Jansen & Schubert 1996). As demonstrated according to the example of advocacy coalitions, which are effective in formulating policies, they are stable and not as easily informally adaptable, interchangeable as some of those involved would hope, to improve their position by creating new networks. The networks are not capable of neutralizing the influence interests have on politics. Whether or not solutions are accepted in the scope of networks strongly depends on their relation to the stakeholders' interests.

The concept of the political arena involves interconnections of networks and thus includes the prime factors of politics. The **political arena** designates all those stakeholders whose interests are either positively or adversely affected by the enforcement of a program. It regularly includes more stakeholders than formal or informal networks do. For instance, concerning conversion of a forest for building purposes, the property owner, the law enforcement agency, as well as the neighbors of the property owner and a few experts, belong to the formal network. However, adversely affected stakeholders also include those seeking recreation and those environmentalists who are not granted access to the authorization proceedings. They also belong to the political arena and can organize a protest in informal networks using publicity to a greater or lesser extent, even though they are not members of the formal network. The arena offers various opportunities for such hidden forest policy work. A policy, which has an allocative impact in the arena by distributing the advantages among all those involved, offers a good opportunity for consensus, whereas reallocation cannot be achieved on a voluntary basis alone. The simple allocative/reallocation factor already serves to explain successful politics, in as far as it is not only geared to those formally involved, for whom the program always emphasizes its advantages, but also takes consideration of the hidden winners and losers when analyzing the arena (Lowi 1972).

The forest policy arena also comprises those institutions with an interest in helping, in addition to those whose utilization of the forest is positively or negatively affected (von Prittwitz 1990). The helpers' interests are geared to the process of problem-solving, itself. They hope to sell their advisory services or new technological solutions, or they would like to distinguish themselves as advocates of ecological interests or business interests, or find recognition for their competency as technical problem-solvers. Helpers offer the conflict parties their support, however they are not without their self-interests. They expect economic or social advantages in return for their help. Helpers promote forest policy activities, as such, out of their own self-interest. As soon as helpers are involved the arena, the political activities greatly increase, even if the problems remain unchanged for those directly concerned. Strong helpers' interests can speed up a certification process even if the issue of sustainable forest management is not on the agenda.

The political arena also comprises other power processes which are significant in implementation, since those fearing that interests will be violated put up a resistance to the enforcement of a program, even if, or perhaps because, the program does not enable them to participate. The success of a program is decided in the political arena. It is not uncommon for

an unexpected political arena to become apparent during implementation causing the original program objectives to fail.

On principle, implementation influences the activities of those concerned through information and power. The impact was elaborated above in detail above based on the stakeholders' strategies and the three different types of instruments, namely, informational, economic and regulatory.

11.2.3. Evaluation

The overall impact of politics is assessed in an evaluation.

Evaluation is the final phase of political problem-solving. It assesses the results of policy formulation and implementation.

Determining and evaluating the impact of resolving issues is not limited to the political network, but also includes the interests of those stakeholders that belong to the political arena. Monitoring the results is a basic requirement of the rational concept of politics. In practice, however, this phase diverges from the rational ideal to a great extent. The difficulties begin with determining a gauge for success that is initially based on the program objectives. Success or failure can only be clearly determined, if detailed objectives have been set. As indicated in the chapter on programs, however, such clear objectives are usually lacking, and evaluation would be impossible, if additional detailed objectives were not developed. The required evaluation gauges provide the politicians with the coveted opportunity to introduce their self-interests into the evaluation guidelines, so that the results will confirm that the politics they favor have succeeded (Lester & Stewart 1996). Practical evaluation thus involves competition among politicians for recognition of their own assessments of political results according to their self-interests. For instance, if the Minister of Forestry and the forest owners perceive forestry to have been successful pertaining to a certain issue, although environmental protection associations lament a failure, this contradiction is due to the contrasting interests in evaluation, which cannot be eliminated by means of rational discourse.

As depicted in the scope of informational instruments, an objective evaluation cannot be expected from the media, or the various public arenas, despite their formal claim to the opposite. Nevertheless, democratic systems aim to provide public information on politics so as to enable the public to have a regulatory impact. As a result, there is competition for media publicity among stakeholders. The stakeholders' power, the media's self-interests and the recipients' interests all influence public opinion.

German politics has its own evaluation instruments, namely financial auditors and legal courts. The deficit due to a lack of clear gauges for success in the programs can only be bridged by these institutions, if they have their own independent interpretation of the programs. The supreme courts, in particular, thus become political players with an influence on the formulation of policies. Without being able to delve into detail on these evaluation institutions, it can be stated that their evaluative contributions deviate from the rational ideal of regulation through parliamentary programs on account of their independent assessments.

Cause-and-effect evaluation is of primary significance in politics, in addition to target evaluation (Hellstern & Wollmann 1984). It clarifies which actions and stakeholders are responsible for the success or failure of the specific policy. Due to the complexity of political problem-solving, the reasons for success are often unclear. Furthermore, success cannot always be traced back to the impact of programs or their enforcement. Changing conditions can improve the chances for success. When technological developments make bituminous coal obsolete, this will promote the goal of keeping our air clean. This may not be a result of air-pollution control programs, but of technological competition in business. It might also be achieved without the aid of political problem-solving.

To be able to attribute success to specific factors is no less politically contested than the right goals are. An important informal principle of the predominant institutions constitutes the attempt to claim responsibility for each and every success. For instance, all governments will claim responsibility for any economic boom on account of their political programs. In contrast, the opposition perceives the powers of the global market to be stimulating the economy despite the failed politics of the government. The true reasons will remain controversial in the course of evaluation.

By no means do politicians leave their evaluation process to the scientists, however science has developed diverse evaluation procedures (Berk & Rossi 1990; Chen 1990; Weiss 1999) that are employed by politicians. Yet

politicians maintain the power of interpretation in order to set their targeted impulses for new policy formulation. All contributions towards scientific evaluation are in high demand for the purpose of confirming the politically targeted results (Krott 1989 (3)). Because politicians have more resources available, they are also able to strongly advocate their informal demand for legitimizing their findings in the face of science, e.g. by means of commissioning research. This does not necessarily force researchers to make false statements, however a preliminary selection already takes place in the form of avoiding potentially critical topics and disregarding critical findings. The client's pluralistic interests and the great diversity of research institutes initially serve to counteract this. Forestry stakeholders seek the understanding and support of forestry research institutes, whereas environmentalists expect support from biological research institutes on forest issues. The pressure of these expectations makes it difficult to independently and critically conduct forest policy research in the forestry institutes.

Powerful stakeholders continue to have a potential interest in critical scientific evaluation. Those in power are not obliged to learn, however they risk losing their power, if they ignore any critical findings a long-term basis, since they will not recognize their own weaknesses before it is too late. The window of opportunity for forest policy research lies in using the potentially available margin for critical scientific evaluation. This will only succeed in the form of a trusting relationship with forestry enterprises enabling all findings to be exchanged in an unadulterated form, so that foresters can recognize the long-term benefits of critical findings. Such findings may not always confirm those concepts favored in practice, however via an in-depth analysis of power relations, they will indicate factors that can provide an incentive for new strategies in forestry in the future.

11.3. Theoretical Integration of Institutional Policy Analysis

Policy analysis is not a fully formulated or conclusive theory of public policy. Instead, policy analysis provides a framework that comprises and classifies greatly differing explanatory theories of policy by indicating **interrelationships between policy, politics and polity**. From this broad scope, the present book depicts a selection of stakeholders, instruments and political processes that are particularly fruitful in forest policy analysis and can be designated "institutional policy analysis" in the following theoretical

references. Above all, this will serve to substantiate the theoretical statements in the present book. In addition, advanced political theories are indicated that facilitate in-depth forest policy research.

Institutional policy analysis is a concept which examines the empirical facts of forest policy and offers alternatives for the selection and evaluation of forest policy strategies based upon them. Its empirical-analytical orientation differs from those concepts that are based on the establishment of suitable policies. Concerning forest policy research, this concept, as elaborated by Glück (1976), provides a clear differentiation from the previously predominant normative-ontological concept of Dietrich (1953) or Hasel (1971), whose major concern it was to evaluate forest policy and establish the best forest policy concept. In the scope of policy analysis, the chosen orientation has a very limiting effect, since the internationally highly developed branch of policy analysis, which is considered interdisciplinary advisory research, has many normative elements that should be avoided in favor of a scientific explanation of forest policy processes. Institutional policy analysis counts among the descriptive-explanatory variants of policy studies (Windhoff-Heritier 1987).

From the wealth of descriptive-explanatory theories (Brodcz & Schaal 1999), a further selection should be made. The main criteria are I) good applicability to specific issues in forest policy, a small branch of general politics; II) high capacity for describing and explaining forest policy practice; III) empirical verification of findings; and IV) good implementation of findings in political strategies for forestry stakeholders. The interaction of forestry institutions in the political process promises good performance with concern to all four points. A direct connection to the detailed processes of forest policy is established through the forestry institutions, such as the forestry associations or forest administration. This guards against making general statements in analyzing the German political system, which do not permit any conclusions about forest policy. Since stakeholders can recognize their own positions, additional meaningful strategic variations can be deduced by analyzing the action potential of the forestry institutions in the course of policy consulting. Including the institutions also opens up an area of persuasive social scientific theories and empirical research methods which can fruitfully supplement the frequently weak theories of political process (Krott 1990 (1)). These arguments support adhering to theories in the scope of institutional policy analysis.

In all their diversity, the politically relevant theories of institutions are based upon common postulations which have stood the test in empirical research up to the present time (Peters 1999):

- Institutions establish connections between individuals and formal or informal structures leading to common political action that has been determined by these structures. Formal structures can be established by authorities or a network of participants over the course of a certain process. Informal structures can also be found in variously oriented networks. Institutions' actions can be explained and predicted on the basis of their formal and informal structures. Theories of institutions can make more significant statements in this concern than can theories of individual action, which is barely predictable to this present day.
- Institutions are relatively long-lived. They maintain their influence on politics in multifold ways over longer time periods than do individual persons. Officials and representatives of associations may change, however the functions they assume in administration or associations are established as lasting posts. Nevertheless, there is a change apparent in institutions, which can be described and explained.
- Institutions influence their members' action. According to the formal and informal structures that have been established, individual members act differently alone than they do in a group. In fact, decisions made by forest officials in their capacity as members of administration are more easily predicable than their leisure activities are.
- Institutions have to fulfill a public formal task, which their members are aware of and at least formally support. The institutions therefore provide a solid background for their political ideas. Whenever a forest institution backs a forestry concept, it can achieve far more political clout than it would through good arguments alone (if these are not politically weighted).

The individual theories of institutions emphasize various aspects of these basic postulations to develop a wealth of hypotheses which are also very significant in explaining forest policy (Peters 1999). In its analytic process, normative institutionalism focuses on the set values and norms of institutions and shows how these control the individual's interests and actions. Institutions thus become the central organizational powers in policy making.

The opposite position is formulated by rational-choice institutionalism. This assumes that the individual has independent interests and will participate in various institutions depending on the benefits he or she can reap. A significant and important variant of this is based on the economy as a model for constructing ideal institutions, i.e. more efficient, rather than analyzing existing institutions. Historical institutionalism demonstrates how the past codetermines the institutional rules of present-day politics. In forestry, there are also institutions that were established under circumstances which no longer reflect the current issues. Social institutionalism serves to network political institutions with society and the economy. Among others, this would include the concepts of pluralism and corporatism which elaborate the relationship between associations and government. The current theoretical concepts of institutionalism should indicate which group of theories is required to analyze the forest institutions' influence and margin of action regarding their relationship with their own members, or the historical transformation of institutions, or forest administration's relationship to society and the economy.

However, research based upon institutional policy analysis is not limited to analyzing forestry institutions and the action they take, instead it investigates the impact of this action on the overall process of forest policy. The final question should always concern the contribution made to regulating conflicts of forest use. On the one hand, theories need to be linked to the political process for this purpose, and on the other hand, a link should also be made to scientifically defined problems of utilization. Both of these tasks have presently only been partially fulfilled to the present day, and they represent a great challenge for improving the theoretical basis of institutional policy analysis.

11.4. Policy Consulting through Policy Analysis

New insights made with the help of policy analysis do not simply find their way into forestry practice because they have been empirically proven and can broaden forestry stakeholder's political room for maneuver. In terms of practical application, the important decisions are up to the stakeholders, who basically expect their own concepts to be legitimized by (forest) policy studies with only a minimum degree of criticism or new options for action (Krott 1989 (3); Murswieck 1994). Policy analysis offers a promising concept for reducing the deficit in policy consulting by actively seeking close practical cooperation and establishing mutual trust through various complementary roles in research and practice (Krott 1996 & 1999).

Consulting projects have different requirements depending on the research phase:

- In the selection of research issues, those stakeholders receiving the practical advice have the last word, because the practical relevance depends on their interests. As a basis for decisions, however, researchers should detail the possible issues and expected results. The term "forest policy studies" makes it clear that this special field of research is capable of orienting its research to issues of forestry practice.
- In scientific analysis, researchers work independent of the influence of those in their practical field, since the requirements of empirical-analytical science cannot otherwise be fulfilled. Above all, such independence ensures that critical results can be compiled, greatly benefiting the practical field. The term "policy studies" signals that forest policy studies secures all its findings using the theories and methods of policy studies independent of the practical field.
- The application of such political strategies is, in turn, the responsibility of forestry practice. The implementation deficits regularly lamented in the scope of politics would indicate that professional forest policy making is in dire need of forest policy analysis, in addition to the generally available natural scientific findings.
- Even if the division of work between those practicing and those researching forestry is indispensable for empirical-analytical policy analysis, cooperation affords important feedback for all involved. In setting their goals and values, practitioners take into consideration the options for action indicated by research and also orient themselves to whatever is politically feasible when defining their expectations. On the other hand, the researchers have a growing understanding forestry stakeholders' particular values. Nevertheless, researchers will only remain innovative partners for practitioners, if they are careful to maintain sufficient independence to be able to critically analyze forest values and forestry strategies.

The policy analysis concepts and results introduced in this book are to be understood as an informative joint contribution to forest management. The checklist elaborated in Appendix 7 indicates findings which can be expected

from policy analysis with concern to specific issues in forest policy. However, their implementation necessitates social scientific research to deliver the data and facts forest policymakers require to ensure that the action they take is professionally justifiable.

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