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Public Procurement and Forest Governance: A German Case Study of Governmental Influences on Market-Driven Governance Systems

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Abstract: With increased privatization of natural resource regulation, green or sustainable public procurement policies are emerging as incentives for sustainable development. Thus, a revival of governmental influences on so-called non-state, market-driven governance systems takes place. The paper exemplifies this development by reference to the green public procurement directives for wood products in Germany and its influence on major forest certification systems and forest governance. Using an approach of governmentality in relational space, the paper displays how governmental entities play a significant role in influencing forest governance systems and the greening of markets. The importance of the underlying relations that shape governmental instruments and their influences on forest certification and governance are evaluated from a German perspective. Acknowledging the market-driven aspects of forest certification systems, the paper highlights the often-neglected impacts of governmental regulation on emerging forest governance systems. Thus, the framework allows insights into how relations among political entities and their means of knowledge production are essential for processes of forest governance.

Keywords: public procurement; forest certification; governmentality; forest governance; Germany

1. Introduction

Neoliberal politics have led to a high degree of privatization in natural resource regulation [1,2]. With an array of often-called non-state, market-driven systems evolving [3,4], forest certification

systems have taken a prominent position within this debate. Currently, two forest certification systems operate on a global scale. The first is the *Forest Stewardship Council* (FSC), established by non-governmental organizations (NGOs) in 1993. The second is the *Programme for the Endorsement of Forest Certification Schemes* (PEFC), which evolved as a forest-owner-backed response in 1999 [3]. Both systems promote themselves as instruments to provide sustainable forest management (SFM). It should be noted that FSC avoids the direct term 'sustainable' but talks about "environmentally appropriate, socially beneficial and economically viable forest management..." [5] paraphrasing their target of SFM.

The perceived move towards privatized transnational governance systems [1–3], such as forest certification, has led to a neglect of state influences and processes in academic literature on environmental and forest governance. Political aspects have often been reduced to simply provide framework conditions for privatized systems [3,6,7]. In this regard, political influences have been treated in a more general fashion [6,8–11] or in relation to tropical export countries [12,13]. Yet, links between state politics and certification, specifically FSC, can be found in academic literature [4,10,14,15]. While some studies mention the connections between public procurement regulations and the uptake of certification systems [3,4,15,16], the underlying relational processes and the influence of rationalities on forest governance, in relation to green Western European markets, as hereafter displayed by the German case, remain unexplored.

The main aim of the following study is to evaluate how governmental market regulations, such as public procurement, affect forest governance through their impact on these systems and their surrounding discourses, by promoting their various approaches to, and knowledge about, SFM. To display the heterogeneity of such processes, regarding procurement and its related certification discourses, a rather novel approach of governmentality paired with a relational view on the space of forest governance [17–19] is employed. This approach highlights the relations of entities, be it their social, economical or biophysical interlinkages, and the entities' rationalities, which become re-produced by these relations and the knowledge networks they entangle. Thus, how are governmental instruments, as procurement legislation, influencing the certification systems and forest governance in general, by re-producing public as individual rationalities? The paper thereby highlights relations, drivers and their effects on transnational forest governance. With this relational and spatial scope, it also moves beyond governmentality accounts on forest certification or environmental governance [20–22]. These processes are exemplified by the relations and rationalities of German state and non-state actors that are involved in the debate about the integration of forest certification into German procurement legislation. The study focuses on networks of knowledge production and distribution concerning the certification systems as means to achieve SFM and displays how these play a role in the decision making of actors. This is to highlight the heterogeneous processes of state influences in transnational forest governance, often perceived as increasingly privatized.

Concerning the approach of this study, a few limitations should be mentioned at the outset. The paper does not attempt to rank the certification systems based on their relative successes or failures at contributing to SFM; research on this subject, although often, controversy already exists [7,23,24]. Neither does this study aim to define or evaluate the actual criteria for SFM, promoted by the two certification systems. Thus, it is not on the internal workings of the certification systems, an aspect well studied elsewhere [3,15,16], rather, the employment of these certification systems to display

governmental aspects of relational processes which shape forest governance and environmental governance in general. Further, certification is understood merely as a part of forest governance [17–19] not as forest governance in its own right [3,4,6].

Green public procurement directives are rapidly increasing in the EU and other developed countries, and are regarded as regulative incentives to green markets [25]. In the EU, this process is primarily based on the European Commissions' Communication on Green Public Procurement [25]. As an exemplifying case study, the Federal German *Gemeinsamer Erlass zur Beschaffung von Holzprodukten* (Joint Instruction on the Procurement of Wood Products) of 2007, with its focus on legal and sustainable procurement, is presented. The Joint Instruction obliges all wood or wood containing-products, with the exception of paper, procured by the German federal administration, to come from sustainable sources. To accept a contractor's bid, one must ensure the legality and sustainability of its products and sources via forest certification labels or other comparable documented means [26]. In accessing a debate on certification systems from a German perspective, it has to be pointed out that with 7,3 million hectares, almost two thirds of Germany's forest area, PEFC is the dominant system, compared to 0,41 million hectares of FSC [27,28]. This also relates to the strong involvement of German forest owners in the development of PEFC [3,29].

1.1. Methods and Structure

The case study is based on a series of 18 open-ended interviews conducted from autumn 2008 to spring 2009. In Germany, interviews were conducted with officials from the Federal Ministry of Agriculture, Food and Consumer Protection (BMELV) and the Federal Agency for Environmental Protection (BfN), as well as with experts from the forestry sections of the Johann Heinrich von Thünen Institute (vTI) [30], the *Gesellschaft für Technische Zusammenarbeit* (GTZ) [31] and a regional, German forest authority. Aside from the five interviews with the certification and procurement experts from state institutions, further interviews were conducted, with non-state actors. Four interviews were conducted with officials from FSC and three interviews from PEFC, both at national and international offices. Further, two officials from the World Wide Fund for Nature (WWF) in Germany and three representatives of forest product-related companies and industrial associations were interviewed. Supplementary information was obtained by participating in autumn 2008 in an FSC workshop on public procurement, held in Bonn. Data presented in the empirical part of this paper relate mainly to the information derived from these sources. Additionally, position papers and legal documents were used to provide a broader framework. Aside from being part of a wider research project studying core-market, resource-periphery relations of forest products [17–19,32] the case of Germany was chosen due to its prominent position as a major importing country within European wood product markets [33] and its resulting influential position in global forest trade. Further it possesses legally binding wood procurement legislation [26], compared to regulations largely based on political obligations in other EU countries [34].

Following the theoretical framework, the study summarizes the development process of the Federal German Joint Instruction on Procurement of Wood Products with regard to the inclusion of the certification systems. The relations that have contributed to its recent form are investigated to highlight influential political decisions, local complexities and political relations that influence forest

certification and governance. The discussion will merge the theoretical framework with the empirical findings presented below, while the conclusion will wrap up the findings on governmental influences on forest and environmental governance.

2. Governmentality and the Relational Space of Forest Governance

Forest certification is often considered to be market-driven within a neoliberal system [35–37]. Drawing on the work of Foucault, Lemke ([38], p. 201) describes neoliberal forms of government as "...not only direct intervention by means of empowered and specialized state apparatuses, but also characteristically develop indirect technologies for leading and controlling individuals [and collectives] without at the same time being responsible for them." Thus, Foucault ([38], p. 193) denies a separation of the economic and political spheres, while Gulbrandsen [39] discusses the blurriness of the divide between these realms and the scientific knowledge used. Therefore, despite failed international, regulative attempts in forestry [2,3], governmental rationalities are regarded as co-constructing the knowledge of the actors and the direction of processes [40,41], and thus should be assumed to continuously play a role in an increasingly privatized forest governance.

Recent studies of certification systems discount the effects, and specifically the processes, of governmental market regulatory tools, such as procurement policies. However, some studies discuss political influences on forest certification. Boström [10] and Hysing [14] examine the state dependency of FSC in Sweden, while Rametsteiner [6], in a more normative manner, studies government influences on the certification of state forests. Various studies [10,14,15,35] stress the role of government choices for certification systems to gain legitimacy, while Boström [9] highlights that such credibility is related to perceptions about the operations of an organization. Political influences are further treated in some studies [11,42,43] partially regarding actors as entangled in certain governance networks. Additionally, the role of procurement as a framework condition and influencing factor for the uptake of certification has been mentioned by some studies [4,7,15,16]. Although Segura [12] and Carey and Guttenstein [13] provide several case studies on governmental influence on certification systems, they focus on developing producer countries. Thus, their accounts fail to address green markets for certified products in Western European countries. Green markets are addressed by Morris and Dunne [44] in their account on the driving forces for forest certification in South Africa, although with a focus on the economic supply chain. Issues such as procurement policies, and these policies' in-depth discourses and processes are peripheral in the certification and forest governance literature [7,8,15].

Forest or environmental governance is treated hereafter, in the sense of Bulkeley [45], as a set of hybrid assemblages, compared to the more structured and fixed frameworks of multi-level governance, often employed in procurement literature [46,47]. Forest governance, including certification, is studied by a relational view of space [17,19,48,49]. Such spaces, for instance, made up of market relations [48], are open and in constant re-production, as are their governance networks. However, their entities lack full interconnection. Thus these spaces are created by heterogeneous relations, which might consist of "...physical force, political (mis)alignment, of imagination..." ([48], p. 100). The lack of interconnection is supported by existing contests and consensuses between actors, which guide the re-production of such spaces. Certain sets of relations, such as knowledge or values, may dominate,

thus excluding or marginalizing opposing actors and their aims [49]. Nevertheless, such dominant sets of relations are solely of a temporal nature and subject to change [48,49], an aspect visible in the global competition of the two certification systems, but also in the German case presented hereafter.

Struggles for supremacy in these spaces evolve in relation to the varying relationship patterns of entities [49]. Regarding forest certification, competition between the systems involves two political technologies (FSC and PEFC) that are competing for legitimacy [8]. Baldwin [20] describes this process whereby FSC criteria are deployed to define SFM as a political technology. According to Murdoch ([50], p. 52), political "...technologies serve to *translate* governmental rationalities into routinized modes of action..." For the study at hand, this means that political, as well as other entities, evaluated by this study may support a technology (e.g., PEFC or FSC) which translates their rationalities or aims into practicable modes of action. Thus, an evaluation is made of the kind of political technologies that are supported as being sufficient to provide SFM, based on the rationalities of the various German entities and on how they promote these claims. These processes are not necessarily only concerned about the rigor of certification criteria, but also, on how knowledge produced about what is considered sufficient for SFM can be distributed and established.

From a relational perspective, no entity or actor is solely situated within a single set of relations but interacts within a multiplicity [49]. This displays the involvement of falsely perceived external relations or notions which equate forest certification with forest governance *per se*. Hence, while struggling for supremacy, the certification systems reshape their own and others' rationalities and relations while being influenced from within and outside their networks. Thereby, the rationalities of different entities play a key role for governance processes. According to Dean ([40], p. 24) "Rationality in this context means any way of reasoning, or way of thinking about, calculating and responding to a problem, (...) and which might draw upon formal bodies of knowledge and expertise." For instance, knowledge networks produced by German state agencies, NGOs or other entities, which are presented in the upcoming sections, shape the re-production of the rationalities of actors involved in the German procurement and certification discourse and also effect entities beyond this national debate and *vice versa*.

Forest governance and certification are global processes, thus Massey's [48] criticism of the common failure of global politics to take into account the differences of local relations when dealing with global issues, does account for the above-mentioned aspect. Her view is supported by the United Nations' failures in transnational forest regulation [2,3]. Further, Murdoch [50] warns of selective, local utilization of national policy mechanisms that can steer implementation towards differing local rationalities. In consequence, this study evaluates political influences within transnational governance systems from a German national and local perspective, since such aspects, including politics, co-mediate relations and processes that shape each other [51]. Hence, actors or entities re-produce knowledge and values on other actors and non-human aspects, which in turn guide their activities [52]. These aspects highlight the possibilities gained by utilizing a governmentality approach with its focus on governmental rationalities, knowledge production and 'how' questions [40]. So, how are processes of forest governance influenced by the networks of knowledge production and distribution deriving from political legal discourses and their related entities? This highlights how the promotion or support of one or another certification system by state or EU institutions may influence forest governance.

According to Jessop's [53] account of Foucault, such systems and their supporting networks aim to colonize or extend certain knowledge and power relations. Similarly, Merlingen [52] stresses the need to delve into the political relations of national policies towards transnational organizations and points out the remaining role of the nation state in the networks of power within transnational governance processes. In this case, power is the production and circulation of specific knowledge or, in the case of forestry, the representation of nature to obtain geo-power [20]. Baldwin ([20], p. 419) asserts, "This is to say that the apprehension of knowledge about how it is that ecosystems are central to human survival becomes a political technology through which geo-power is exercised." The notion of geo-power widens Foucault's [54] notion of bio-power, concerned with the government of the self and the social body, to include its material surroundings, in this case forest issues [20]. While Baldwin's [20] study is a good example on how a governmentality approach can be employed for studies on certification, it unfortunately ends short of integrating wider processes and relations which create the rationalities that frame certification as political technology. Hereafter, geo-power is acquired when actors position their agendas concerning SFM and knowledge as accepted values within the society and the economy, thereby promoting their specific political technologies and rationalities, for instance through procurement legislation.

This shift from bio- to geo-power additionally opens up the utilization of a governmentality approach to fit into the open framework of relational space and enables criticism to be addressed. For instance, Murdoch [49] points out problems in applying Foucault's ideas outside of the micro-scale of institutions. The relational perspective taken by this paper [48] enables the integration of such wider, heterogeneous and shifting aspects in various spatial settings. With its openness, it further provides means to overcome criticism of Foucault's governmentality approach, including its state-centrism, closed-ness and disregard for excluded subjects [21]. Thus, with the approach followed by this study, governmentality is not treated as a one-way road from state institutions to govern "free" individuals at a distance [55]. Rather, it becomes a relational discourse between various, spatially embedded entities with the aim to steer, perceived free, yet relationally-embedded actors and individuals with their knowledge claims and produced rationalities [17,19].

To analyze neoliberal government approaches through a governmentality lens, Dean [40] urges the inclusion of the different rationalities of governing and governed entities in evaluating governance networks, an aspect strongly followed in this study. Changes in these rationalities are related to "problematizations", which place previous forms of governance into question ([40], p. 31). NGO protests concerning unsustainable forestry are but one example. Market driven forest certification, by the proclaimed values of western green consumers [3,18], provides another linkage to governmentality, since Foucault [54] places his governing focuses on the self, thus, societies' images of governance. Although the green consumer and its markets are largely co-constructed through NGO campaigns and other market actors, while the actual demand remains relatively low [32,56], knowledge distribution influences evolving perceptions and shapes rationalities. Additionally, as a process of self-government, governmentality enables individuals to decide according to their own rationalities, based on knowledge and perceived credible norms available to them, and thereby influence the direction of governance networks [40]. Thus, as pointed out by Murdoch [50], while a governmentality approach is appropriate to study the technological and the material attributes that shape political decision making, such as the discourse surrounding public procurement legislations and forest certification systems, the relational

perspective provides additional means to evaluate the in-depth processes and spatial peculiarities of governance. Thus, while this approach provides few means to evaluate good or bad governance, a research aim also suspect to Foucault himself [22], it enables the relational processes of forest governance and its governmental influences to be displayed.

3. Public Procurement and Forest Certification

3.1. German Legislation, Development and Discourses

The process for a new sustainable procurement policy for wood was initiated in 2002 by a red-green government coalition of Green Party and Social Democrats. Initial attempts focused on legislation, accepting only FSC-certified wood. This idea was supported by the Federal Ministry of Environment (BMU), regarding the PEFC system as insufficient. BMELV personnel had criticized FSC standards as too demanding to achieve wide support from forest owners. Therefore, the BMELV preferred more pragmatic solutions, including PEFC. Further criticism was addressed by PEFC Germany, which challenged the red-green approach from a legal perspective, stressing its non-compliance with national and World Trade Organization contract procedure legislation. To address these criticisms and avoid an escalating conflict among involved entities, the government decided to create its own certification criteria.

The initial criteria, based partially on the German FSC standard, troubled both systems because of their strict guidelines in the pilot assessment in 2005 and 2006. Concurrently, the BMELV requested that the vTI break the FSC monopoly by evaluating the inclusion of PEFC. Thus, the decision was the result of a political adjustment process of lobbying for the systems or political technologies instead of performance criteria. Nevertheless, the national standards of both systems were partially altered to meet the demands of the developed criteria. In this process, PEFC and FSC both lobbied actively. The former, supported by forest owners, the backing of industrial associations and partially the BMELV, lobbied for its inclusion, the latter, supported by NGOs and the BfN, lobbied against it. Yet, the final decision to accept both schemes on a global scale was reached. It was described by a PEFC official as not through intensive discourse among involved actors (aside from the partial success that the red-green government had decided to agree on the acceptance of the German PEFC standard), but due to the change from a red-green government to a coalition of the Christian Democratic Union (CDU) and the Social Democrats (SPD) in 2005.

Supporting forest certification and SFM in general [57], the then new government accepted the "joint instruction on the procurement of wood products" in January 2007 [26]. Accepting both systems, it overrode critics from FSC supporters. The political shifts in the responsible ministries from the Green Party to the SPD in the BMU and to the Christian Social Union (CSU), a CDU affiliated party in Bavaria, within the BMELV, also affected the decision. This highlights the production of knowledge and its relations within such a process. Geo-power is exercised through the discourse on what counts as nature ([20], p. 424) or, in this case, SFM and its political technology. Thus, the government change was accompanied by changing rationalities on SFM due to different relational networks of the newly involved actors. The new rationalities on what standards are sufficient for SFM opened a broader spectrum of management practices for forests intended for public procurement contracts. Still, critics from both sides continue to frame the instruction.

In the interviews, criticism occurred in a twofold manner. Firstly, PEFC inclusion is perceived as a major problem for FSC and its supporters. It was pointed out that it provides public credibility and value to a weaker system by naming it as equally acceptable to prove SFM. Large differences in national PEFC standards were brought up. Although some FSC supporters contend that German PEFC standards are close to those of FSC, non-European standards were frequently presented as insufficient. Therefore, because Chain-of-Custody (CoC) certificates are indistinguishable by country, generally PEFC and its forest management criteria are criticized as non-reliable. This criticism reflects the positive perception by PEFC. The instruction asserts that the government has deemed the two systems equally acceptable, and that both systems are reliable instruments to improve SFM. This contention is in direct opposition to the strongly pro-FSC chorus of the major NGOs that blame PEFC of insufficient practices [58,59]. Thus, recognition by the government improves PEFC's public role as a political technology to guarantee SFM [20]. Aside from this, PEFC officials expressed concerns over the lack of criteria specifying further means of proof according to German and EU contract procedure legislation. Specialists at an FSC procurement seminar also recognized problems for the potential of public procurement because of this bureaucratic burden.

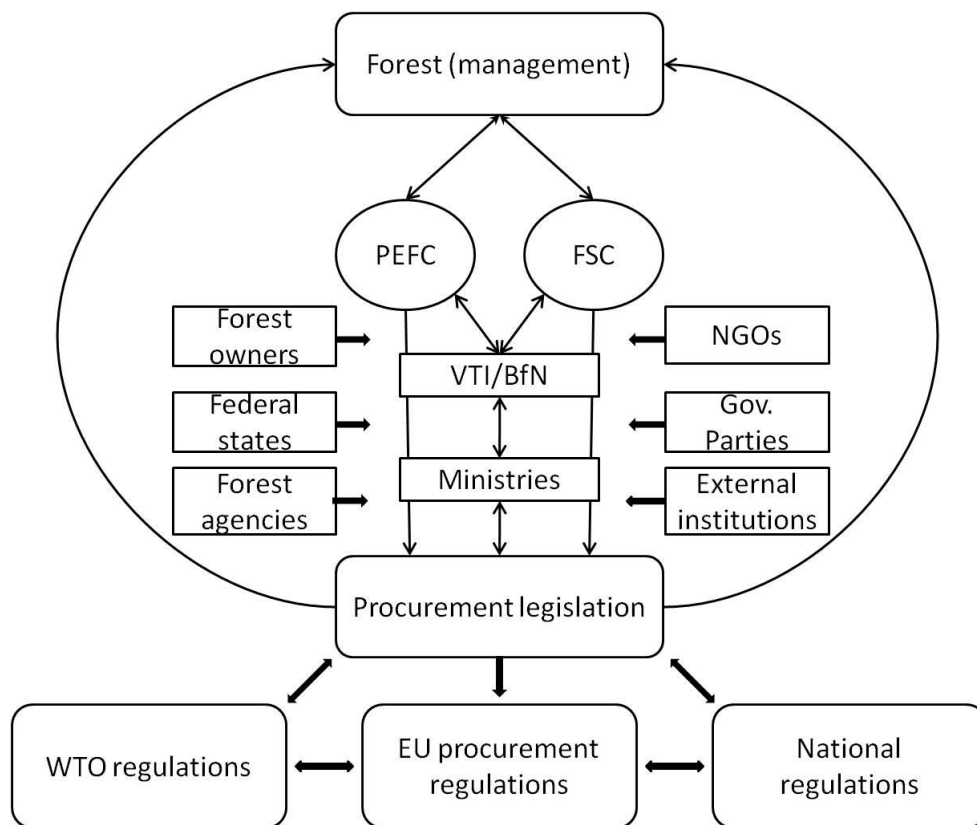
Secondly, the implementation of the instruction itself stands out as the main common issue of criticism. Officials from both systems questioned its impacts due to the lack of CoC-certified handicraft enterprises. Both systems require final certification to close their CoC. In FSC, at least a few companies at the end of the CoC are certified, but the situation for PEFC was described as an empty field. This was a great impediment for the federal authorities applying the instruction and for the certification systems as a political technology for SFM. However, the situation has been improving in recent years [27,60]. Additionally, within the complex field of public procurement, wood products are merely a small share, so the procurers' certification system knowledge is limited.

Apart from these problems, the impact of the instruction is increasing beyond federal authorities. Since no central statistics on public procurement spending for Germany exist, the share of public procurement in Germany is estimated to be 10% of GDP, including national, federal states and community spending. However, estimates vary between 17% in 2002 [61] to 5.2% in 2005 [62]. Previous studies calculate an estimate of 10.6% for 2006 [63]. A vTI expert estimated the accumulated effects up to 15%–20% of German GDP. For wood products, because federal states, several cities and state-owned companies, such as the *Deutsche Bahn*, have implemented the directive [64], additional demand for certification is created. This forces even opponents of forest certification to deal with such issues. By promoting the certification systems as political technologies, the government is able to change the rationalities of previously opposed actors. Hence, forest certification systems are no longer a mere option to green the company's reputation, but a necessary practice to secure access to federal contracts.

While PEFC is said to have gained credibility and legitimacy, FSC and its supporters are more critical of the recent instruction. However, FSC officials' fears of a negative outcome were partially unfounded. According to them, procurers' knowledge on certification has increased, and there are benefits for FSC with its high number of standards in tropical countries, due to the prominent position of tropical hardwood in construction materials. The processes of these discourses, happenings and resulting regulative frameworks exemplify how state governmental influences within market-based certification systems and the distribution of certain knowledge shapes and re-produces rationalities, as pointed out in studies on governmentality and governance [40,52,65].

Figure 1 displays the entities which, based on their rationalities, influence the integration of PEFC and FSC into the current German procurement legislation. As the procurement instruction was reconfirmed in January 2011 [26], the vTI and the BfN, as scientifically responsible state agencies, are continuously re-producing, eventually differing knowledge on political technologies to distribute to the implementing ministries. By taking into account further perceptions and values of non-state produced knowledge, the ministries will maintain or transform their rationalities and technologies regarding the development of further national legislation. Thus, a multiplicity of eventually opposing representations of the forest and elements necessary to achieve SFM are integrated with both economic and political sets of relations and their rationalities. Thus, as shown in Figure 1, their rationalities are continuously influenced by a variety of hybrid assemblages', cross-cutting local, national and transnational contexts.

Figure 1. Discourse on the integration of the forest certification schemes into German (and EU) procurement legislation. Entities displayed in boxes are not enclosed systems but tied in further set of relations and knowledge networks, similar to the one displayed here for the German procurement instruction.



3.2. On the Heterogeneity of Political Institutions

Public authorities, such as ministries and federal agencies, are important in the production of knowledge, which shapes regimes of practices and influence their maintenance or transformation [40]. The German case exemplifies how knowledge re-production and promotion influences forest certification systems as political technologies for SFM. Following notions of Foucault [54], this section concentrates on the internal heterogeneity of state-affiliated organizations and their differing rationalities and perception of SFM, due to their relations. While the BMELV's perception was

described to favor PEFC as political technology to guarantee SFM, the BMU and the BfN tend to favor FSC.

With the differences changing, these preferences emerge from the different relations of the ministries and result in specific knowledge accepted and implemented in the political realm [40]. Since the BMU strongly relies on knowledge by the BfN, which is mainly concerned about nature conservation, it was described as favoring FSC with its more stringent set of standards and protective criteria. In contrast, the BMELV was said to favor PEFC as a means of compliance with SFM, while its consulting agency, the vTI, regards both, as well as their credible equivalents, as sufficient. This relates to the vTI's increased concern, compared to the BfN, with economic issues. Additionally, the close ties among forest owner associations and the BMELV, and the close ties between the BMU and environmental NGOs play a major role in such decisions.

Varying rationalities of the political parties to support a system were pointed out in the interviews. The conservative (e.g., CDU/CSU) and liberal parties historically linked to the farmer associations tend to support PEFC, while the Green party, which is affiliated with many NGOs, is a strong supporter of FSC and has even partially rejected PEFC. Until recently, the federal states' choice of a certification system was recognizable by their political leanings. Following PEFC certification of all federal state forests, with the exceptions of double certifications in the states of *Schleswig-Holstein* and *Saarland*, such political leanings are no longer simple predictors of certification system choices. This development was also due to indirect forest owner pressure. However, the support of a political technology by governmental means can also produce unintended results.

An expert from the BMELV asserted that the preference of forest owners for PEFC was promoted by the decision of the former minister of the BMELV, the Green party's Renate Künast, to support FSC. This was said to have motivated forest owners who were previously against certification in general to opt for PEFC. Several interviewees described forest owners as distrusting of the Green party, and especially FSC-affiliated NGOs. Additionally, German forest owners frequently regard themselves as the inventors of SFM and see no need for improvement. They advertise German forestry and its forests as sustainable despite a lack of FSC certification. This claim is rejected by most NGOs and the Green party and frequently leads to tension while influencing the process.

Forestry and environmental protection issues in Germany always need to take into account that responsibility and decision-making power is reserved by the federal states (*Bundesländer*) [66,67]. The *Landesforstanstalten*, or Federal State Forest Agencies, and their attached scientific departments, play a major role in establishing the federal state governments' rationalities. For example, in the state of *Nordrhein-Westfalen*, issues concerning forest certification are handled by the environmental ministry, while in *Baden-Württemberg*; these topics are handled by the agricultural ministry. *Nordrhein-Westfalen* was governed by a red-green coalition, while *Baden-Württemberg* was governed by the CDU. These two factors contributed to dissimilar policy regimes. *Nordrhein-Westfalen* certified its forests according to FSC because of demands by its environmental ministry. *Baden-Württemberg* certified its forest according to PEFC and is considered a strong PEFC supporter. A further shift in the rationalities involved the CDU in *Nordrhein-Westfalen*. After taking government it has been reluctant to refresh the expiring FSC certification despite criticism from the Green party and the SPD [68]. Similarly it will be of interest how the recently elected Red-Green government coalition in *Baden-Württemberg* and *Nordrhein-Westfalen* will affect these issues in the future.

State choices influence private forestry as well. Although no specific scheme is promoted, many private forest owners have chosen the same certification system implemented by the *Landesforstanstalten* in their forests. In contrast, it was stressed that the public institutions have to bow to certain business demands. In *Nordrhein-Westfalen*, this forced the ministry to open up to PEFC certification because sawmills opted for PEFC. This decision was supported by the *Landesforstanstalt* of *Nordrhein-Westfalen*, which, due to the close relation to forest owners, favor PEFC. Supporters of both systems point out that PEFC entails better access to the *Landesforstanstalten* due to its forest owner support and therefore is able to generate support.

These close relations are frequently criticized by FSC supporters. There was at least one case where PEFC regional sustainability reports were written by officials from the *Landesforstanstalten* and PEFC profited from state resources and knowledge. This displays how entities are struggling against each other, promoting their rationalities through the distribution of certain knowledge while being affected by other relations, their knowledge and rationalities. This prevents the strict separation of market forces and politics as well as their produced knowledge ([38], p. 193).

4. Governmental Aspects of Forest Certification and Governance

Starting with Foucault's [54] notion that governmentality of states focuses on population, I draw the link to forest certification as a market-driven system created by re-produced consumer demand [32]. The consumers and policy makers in the green markets have expressed value for SFM. In this regard, it has to be pointed out that most actors (e.g., consumers and policy makers) rely on external representations and knowledge regarding what they then consider to provide, or define SFM, or on the state of forests. Thus, it is the various representations of the material practices that are most important in influencing the development of transnational forest governance, as most entities utilize these expertises to decide upon what they consider SFM.

Political discourses are struggles for supremacy by political entities and their varying supportive networks. Thereby, for instance, forest owners or NGOs attempt to include their own rationalities into a stable set of relations [19,40]. This specific knowledge production aims to prioritize certain power relations over others [69]. Cross-cutting throughout multiple scales, the process is not reducible to a single entity as a state or an actor but is deeply rooted in transnational relations, as are the certification systems themselves. As nation states in the international decentralized processes in the EU remain important [52], the same accounts for national state procurement policies and the relations that shape their discourses and influences forest governance. This is not to say that politics determine the direction of forest governance, rather that considering certification systems as non-state governance [3,4] is a flawed conception.

With political influence taken for granted, two questions remain. Firstly, by promoting certain political technologies and knowledge, how are different sets of relations influencing the discourse on procurement instructions? Secondly, how does this affect forest governance? It should be remembered that forest governance is understood as hybrid assemblages of entities and their relations [45] and, such as shown in Figure 1, this development process is influenced by an array of related actors and their rationalities. For instance, the support by the former BMELV minister for FSC led to an anti-FSC effect, due to negative attitudes of the German forest owners towards her supportive set of relations

(e.g., the Green party and environmental NGOs), and not necessarily due to the material practices or standard criteria of the systems. It shows how individual rationalities may influence the direction of governance [40]. Thus, I avoid forecasting if future policy outcomes are able to provide improved SFM or which certification system might eventually succeed the competition, but attempt to shed insight into the re-production of governance processes. State agencies enclose vast capacities of knowledge production that might be in line with, or in opposition to, knowledge produced by non-state organizations such as NGOs or companies. Certain rationalities or political technologies concerning SFM are included or excluded according to the promoting actors' patterns of relationships in space [49].

A prominent example of this is the shift towards private forest governance systems due to the lack of international agreements [2,3]. This transfer is owed due to a wide distribution of knowledge related to NGO rationalities. NGO rationalities are sustained further by the high credibility of their institutions, which, as pointed out by Boström [9], correlate with the perceptions on actors' activities. One might think that FSC, supported by most NGOs, should dominate in those nations with green markets and subsequently be promoted by governments. Initially, that was the case in Germany and, for instance, the Netherlands, whereby the responsible institutions discounted local relationship patterns, such as forest owners in the German case. The governmental changes in both states display the importance of taking into account such seemingly external yet involved sets of relations and their rationalities. Hence, while certain groups felt excluded by the means of privatized governance systems, they were able to strongly voice their opinions in the public policy discourses on procurement.

In Germany in particular, forest owners, with their strong relationships to the conservative parties, were able to utilize these sets of relations to integrate their rationalities into state policy. Since policy is shaped by multiple relations, these processes are concerned with more issues than just forest certification. For example, the World Trade Organization or the EU trade regulation limits the acceptance of a single system as opposed to free trade. This decreases the possibilities for specific certification systems. Here, it must be pointed out that most PEFC supporters, unlike those of FSC, promote no monopoly claims in this two party competition on SFM certification. The prior aim of PEFC lies in mutual recognition as a credible instrument for SFM. Thus, this situation of relative openness in this governmental space can be regarded as an advantage for PEFC to integrate its standards and to gain legitimacy via state support, despite weaker protective criteria [9].

In her account on FSC, Eden [43] stresses the importance of place in relation to the re-production of governance networks. Place-related attributes, such as specific or localized knowledge and material practices, influence the possibilities of such networks [9,43]. This supports Massey's [48] criticism of the global political failure to take into account local relations. National governments and the national chapters of the certification systems are building their rationalities and the resulting political technologies partially from nationally or locally embedded set of relations (e.g., Figure 1). In the German case, the BMELV pro-PEFC position, in comparison to the pro-FSC position of the BfN, is as much an example of this as the different evaluation results within other EU procurement directives [34]. This reflects Murdoch's [50] findings that centrally produced rationalities might face problems in being equally adapted by different locales, an aspect often neglected in normative accounts on forest governance.

In Germany, according to a vTI expert, a sole reliance on FSC would prevent access to state procurement contracts to approximately 75% of all German forest owners, even though German forestry is seen, even partially among FSC supporters, as comparatively well managed. These

examples display the "problematizations" focus of governmentality mentioned by Dean ([40], p. 31). Because the political actors in Germany are tied to multiple sets of relations aside FSC or PEFC, they balance their decision-making and the re-production of their rationalities on various problematizations. Thus, they rank the environmental, social or economical aspects of SFM in varying manners. In the case of procurement legislation, one part of this decision was between broader acceptance (PEFC) and higher conservation standards (FSC) of the procurement instruction, in addition to external considerations not directly related to forest management (e.g., economic and party politics).

Inside the EU, PEFC is mostly perceived as sufficient for SFM [17], due to the strong existing legal framework for forest management within most member states, despite PEFC's weaker general criteria. Illegal logging or mismanagement are therefore less common than, for instance, in developing tropical countries or the Russian Federation, and provide fewer reasons for public controversy, which is an important aspect to influence public and political rationalities on the issue [17,19]. However, this is not the case in the tropics according to FSC supporters. Hence, despite their international criteria and indicators, the systems entail varying national standards and implementation [24]. Thus, it becomes almost impossible for international policy to agree upon or promote a single way concerning SFM through a singular forest certification system. Nevertheless, to include their rationalities of SFM through a specific certification system, the supporters of the systems must be able to produce and distribute knowledge which promotes their approach as a globally, unified political technology [37,50]. Such actions create important promotional networks and generate certain "geo-powers" [20] for systems found in Germany and elsewhere. Further, such relational processes influence the conduct of governance processes for various entities [40,41].

Having discussed the relational re-production of the procurement instruction itself, the influence on market-driven forest certification systems and governance in general requires additional evaluation. Even though procurement legislation merely regulates minor shares of a specific market, it creates a wider contribution to the greening of markets. Depending on the rationalities of the procurement regulation, certain actors can become connected to this newly developing set of relations by sharing some of its values. The case of the pro-PEFC federal state of *Baden-Württemberg* is a good example, because adoption would have been unlikely with a national procurement policy focused exclusively on FSC, as its forest owners and institutions support PEFC. As more institutions adapt this legislation, the certification systems can become state-accredited systems of market regulation, providing them with improved power relations.

Regarding low end-consumer demand [32], PEFC seems to be recently better equipped in Germany to gain from this policy. The support from forest owners has a definite influence because of their interrelations with governmental authorities, such as the Ministries of Agriculture and Forestry, who are often in charge of the above-mentioned legislation, in addition to responding more sensitively to economic concerns. Additionally, these pro-PEFC entities entail strong means of knowledge production as well as distribution networks to influence the rationalities of involved actors and some political actors in Germany. Contrariwise, FSC enjoys broader public acceptance due to its NGO linkages, providing it with an advantage in market-driven governance aspects, and is therefore enabled to utilize different channels than PEFC to promote its rationalities and itself as the better political technology for SFM. Hence, as can be derived from the examples provided above by the German case, which system profits more strongly is related to the relations of the further involved actors with the

political and economical institutions, which co-construct the knowledge and the resulting rationalities [40].

4.1. Governmental Effects on Forest Management through Certification

A different conclusion regarding SFM is drawn concerning the system's own performance. The German legislation distributes knowledge that supports or neglects a certification system rather than shaping the certification systems' on-the-ground criteria or internal processes. Nonetheless, the perceived on-the-ground performance plays an important role in the re-production of the rationalities and values of the involved entities. Most studies concerned with the on-the-ground performance of certification systems acknowledge positive effects of forest management when private, third-party accredited systems are in place [7,70,71]. This, at least, is in comparison to business-as-usual forestry, an aspect which is further supported by a recent study on Finnish forestry actors and their perceptions on certification [19]. Thus, political regulation by promoting certification through public procurement should be able to provide a positive impact on the state of environment in forests and on their environmental aspects of their management. Yet, if the choice of a single system, for instance FSC, would provide even larger improvements for the forests themselves is a different question and requires further research beyond this study in, what I would call, a rather disputed subject, concerning forest certification.

Despite current state acceptance, supporters of both systems questioned if the German procurement directive as well as its responsible ministries and political actors share the same rationalities and aims concerning SFM, as promoted by the certification systems themselves. Furthermore, it is questionable whether legislation will be capable of keeping up with the rapid development of the certification systems. Thus, which sets of relations are able to include new or sustain old rationalities into these regulations remains an important question. Keeping in mind the importance of place in relational space [48,49], local sets of relations like the ones presented from the German example are also the underlying relations that shape the re-production of legislations in other EU countries and are vital in understanding the development of a future all-EU procurement legislation. That, specifically since Germany is further part of a six EU country-wide working group on the public procurement of wood products in the EU Standing Forest Committee. While this is an important aspect, it lies beyond the scope of this study. Nevertheless, these aspects provide a further incentive for additional studies to remediate the lack of national and local peculiarities in previous research on public procurement, market regulations and their influences on forest certification and forest governance in EU states and elsewhere [6].

5. Conclusions

The market-driven aspects of forest certification and its related systems, especially FSC and PEFC, are described by several studies [3,15,72,73]. Treating the subject within a framework of relational space and a governmentality approach [17,20,40], a strong influence by state actors remains. This accounts as well for the influence of procurement legislation on forest or environmental governance in general, if through certification or by further means.

The German case presented above shows how formerly voluntary certification systems are transformed into political technologies with state legitimacy by means of procurement legislation.

Procurement guidelines thereby provide market incentives and become an essential aspect of the greening of markets, as described by Kortelainen [32], although their market-driven aspects are co-produced, based on governmental relations and rationalities. Thereby, the study pointed out the importance of taking the heterogeneity of a political discourse into consideration to evaluate how transnational governance processes are shaped by national peculiarities. It showed how different entities, based on their relationship patterns, become involved in governance processes and how varying knowledge, concerning SFM, is mediated in a political discourse to a certain end. For the systems themselves, this might be positive if they are accepted as a political technology or negative due to the introduction of competing technologies. Even though, in the case of Germany, both systems were finally accepted (and one might ask if the process described above made any difference), the ongoing discourse which surrounds the legislation continuously influences the rationalities and therewith the understandings and decision-making process of various actors and entities in the field of forestry and certification. Generally, current German legislation has been supportive of forest certification as a political technology. However, in terms of achieving SFM, it certainly has only fulfilled its proclaimed target of securing sustainable procurement based on the rationalities of some of the involved entities due to the varying definitions of SFM among involved entities.

Concerning the systems themselves, state authorities' relations and rationalities influence the rationalities of actors and the development processes of the certification systems. Thereby, the systems rationalities are publicly ranked and promoted as a technology for SFM by state authorities. Hence, the knowledge produced, accepted or rejected by different entities within this process contribute to the overall re-production of transnational forest governance spaces as it not only creates some of the framework conditions in which forestry or certification takes place, but also shapes the rationalities of all directly or indirectly involved entities, which guides their decision-making and conduct. Additionally, individuals in a powerful governmental position can strongly influence the process. However, they are individually unable to direct a specific development.

Such processes as presented by this study, framed by a governmentality approach and its networks of knowledge production enable it to provide an improved understanding on how heterogeneous processes of forest governance take place. Compared to many other studies, this study has aimed beyond aspects relevant for the internal workings of the certification systems or normative policy accounts [4,6,10,15] and evaluated the relational processes of state influence which influence and guide governance processes. Thus, as mentioned before, it does not evaluate good or bad governance, neither can it provide a structured framework on how to achieve the former, but the study has displayed important processes of how entities are involved in governance networks and are able to shape their processes.

Finally, I regard the approach of governmentality within a relational space of forest governance as helpful in studying transnational governance systems for its provision of important insights into the institutional and spatial settings co-producing the involved discourses. From this perspective, the paper fosters further understanding and research into the local and often falsely assumed external processes that influence forest or natural resource governance. It opens up the governmentality perspective by integrating the spatial peculiarities of localities and actors, their relations and the implications for hybrid, scale crossing governance assemblages. Thereby, it rather adds to the current state of research in studies on environmental governance and the influence of governmental entities on market-based

certification systems, then to deliver an improved understanding in the realm of literature concerned with the certification systems themselves [3,8,15]. Nevertheless, keeping in mind the permanent re-production of space and knowledge [40,48], I conclude with the thoughts from a researcher of the vTI who stated that what is politically considered legal logging today was considered SFM ten years ago. This statement displays the shifts on how nature and its needs are represented through changing rationalities in our society and throughout our policies. Hence, while common values and rationalities are constantly shifting, governmental and political realms permanently co-construct these rationalities and values, even in a strongly market-driven governance sphere.

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