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Political theory in forest policy science

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ABSTRACT

The use of theory in forest policy studies has given a new face to forest policy science, as it matured from an applied academic field to a specialized sub-discipline. In addition to doing science to support policy, forest policy academics engage in research to expand policy sciences. The link to theory enables the forest policy researcher to generalize findings. The successful use of theory in analyzing a specific forest policy issue is a "test" of the theory and an important contribution to the general academic discussion of each theory. Existing theories can be adjusted and refreshed through forest policy studies. Forest policy studies have a tendency to follow trends, and choose theories that are in vogue to analyze forest policy cases. As such, forest policy science is well integrated into the broader field of policy sciences and political sciences in general. Apart from the modest contributions to the dominant policy theories, forest policy science has become internationalized over the last two decades and is thus perhaps more capable of serving as a vehicle for broad theory development and theory cross fertilization than political sciences sub-disciplines with a more narrow geographic focus.

1. Introduction

There are several reasons for this special issue of *Forest Policy and Economics*, entitled "The Use of Theory in Forest Policy Science." Forestry sciences were created in eighteenth century Europe to generate knowledge geared at improving forest productivity and profitability, initially focusing on forest management and economics. In comparison, policy science is a relative newcomer to academic inquiry, having emerged as a serious sub-discipline of political sciences in the 1950s. Policy studies then experienced an expeditious expansion, particularly from the 1970s onwards. In the mid-1990s, forest policy science emerged, initially addressing forests in temperate regions. However the focus quickly shifted when the world turned its attention to tropical deforestation, as researchers sought to identify the "underlying causes of deforestation." The reason for this shift has much to do with the evolving prominence of forests and forestry in related debates, such as sustainable development, biodiversity conservation and climate change (Wiersum, 1999).

The recent evolutions of forest policy science have shaped the objectives, focus and methods that are pursued in forest policy analysis. These changes in forest policy studies have been documented by various observers (i.e. Arts and van de Graaf, 2009; Krott, 2009; Wiersum, 1999). Initially, forest policy studies were commentaries on actual policy or implementation practices largely carried out by people from within the forest policy practice. Forest policy science then became a complementary sub-discipline at forestry faculties, departments or schools. However, the sub-discipline was still largely carried by people with a forestry education. At this stage, the forest policy analysts practiced "science for policy" meaning their objective was to make a (normative) contribution to real world policy problems, and less to theory-building, i.e. engage in the "science of policy" (Glück, 1977).

For over a decade now, non-foresters have increasingly strengthened forest policy studies as an independent academic field in its own right. The connection between forest policy science and forest policy practitioners, which was typical in the early days of forest policy science, has diversified, as forest policy scientists these days are typically ideologically linked with climate change and biodiversity conservation causes, in addition to the sustainable forestry cause.

These changes have altered the nature of forest policy science. Nowadays, people who have a different academic background from those of 20 or 30 years ago conduct forest policy research, and they do so for different purposes. The maturation of a scientific discipline is characterized by progress in theories, frameworks, models and typologies, hence, "underpinning forest policy studies by theories has become a matter of course" (Weber, 2011). This has had quite a few consequences for how forest policy science links with policy science theories or political science in general. Policy studies, or any other academic inquiry for that matter, must be based, implicitly or explicitly, on some kind of conceptual or theoretical understanding. As the purpose and practitioners of forest policy science have changed, the role that theory plays in forest policy studies has evolved as well. The changing role of theory in forest policy science over the last two decades is the fundamental theme of this special issue. Over the last decades, forest policy scholars increasingly are using policy theories and frameworks to enlighten their analysis and build their arguments instead of theorizing solely within a forest knowledge context. Furthermore, the emergence of "critical theories"

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in policy science (Arts, 2011; Winkel, 2011; Kleinschmit, 2010) has opened a new approach in forest policy sciences as interpretative policy analysis privileges critiquing policies or other societal arrangements, rather than explaining them.

The special issue brings together 11 papers that reflect on the use of social science theory in forest policy studies. The papers can roughly be divided into two groups. The first group of papers talk about theory, either a particular theory (e.g., Kleinschmit, 2010; Krott, 2011; Sotirov and Memmler, 2011; Winkel, 2011) or several theories or theories in general (Arts, 2011; Weber, 2011) and makes a link with forest policy science. The papers in the second group, on the other hand, address a particular forest or nature policy case and apply one or more theories as examples of the use of policy science theory in forest policy analysis (Arnouts et al., 2011; Böcher, 2011; Buizer and Van Herzele, 2010; de Jong and Ruiz, 2011; Van Gossum et al., 2009).

The papers in this volume propose two questions. The first question relates to the relevance of forest policy studies for theory development and asks whether forest policy studies provide distinct opportunities for policy science theory development. Is there something unique about forest policies, not only for applying or testing, but also when further elaborating or designing a particular policy science theory? A second question that can be asked is: How much does it matter what kind of policy science theory is being used in a particular case of forest policy analysis? In other words, is it better to use one theory and not the other for a particular case that is being researched? Or, if alternative theories are being used to analyze a particular forest policy case, does this influence the outcome of the study significantly? And if so, what does this mean for the choice of a particular policy science theory, when a forest policy study is being planned?

The contributing papers to this volume provide some answers to the questions posed here. This paper is divided in six main parts. Following this introduction, Section 2 gives a brief overview of the use of policy science theory in forest policy studies, highlighting the most relevant findings emerging from the papers. Section 3 elaborates on the first question: Do forest policy studies provide opportunity for policy science theory development? Sections 4 and 5 discuss the second question: How relevant is the choice of a policy science theory to research a particular forest policy case, and does it matter if different theories are chosen for single cases? Section 6 draws conclusions.

2. The use of theory in forest policy studies

What is a theory? It is not an easy question to answer, especially if one considers critical theories, as several of the papers in this volume do (Kleinschmit, 2010; Buizer and Van Herzele, 2010; Winkel, 2011). In its broadest understanding, a theory proposes ontology or epistemology on a social reality or events, and formulates axioms. This allows interpretation or explanation of social events, which results in the creation of new knowledge when confronted with additional empirical "reality," or creates abstract knowledge that can be applied to new contexts. Two of the papers in this volume present a general overview of theory in forest policy science. Weber (2011) defines four basic elements of theory: a definition of terms and variables, a domain covered by the theory, relationships between variables, and explanatory or predictive capacity. He also observes that an academic sub-discipline will progressively increase its focus on theory, and the same has happened in forest policy science. Winkel (pers. com., 2011) suggests that part of the change of use in theory, also observed by Arts (2011), may be a result of an ideologically maturation of the sub-discipline and an adoption of ideas and knowledge from other disciplines, like policy science or political sciences. A second relevant point is that, according to Weber (2011), the use of theory in an academic discipline has three main objectives: testing a theory, combining several theories in a new context, or creating a new theory.

Both Weber (2011) and Arts (2011) observe the multiplicity of theories that are used nowadays in forest policy studies. Arts (2011) (particularly his Fig. 1) proposes a topography of five "families of theories," in which a family of theories is a collection of related theories that share defined terms and variables and the relations between those. For instance, the family of theories referred to as critical policy analysis (i.e. critical theories) includes both the Habermasian deliberative discourse theory (Buizer and Van Herzele, 2010; Kleinschmit, 2010) and the quite distinct Foucauldian discourse theory (Buizer and Van Herzele, 2010; Winkel, 2011). The topography is based on differences that can graphically be expressed along two axes that reflect two conceptual continuums (Arts, 2011). The two continuums, one from ideational to material and the other from actor to structure, reflect a more fundamental social science debate on whether human behavior is to be explained as by ideas or interests (x-axis) or by individual motivations or social structures, like rules, discourses or power structures (y-axis).

Using the definition proposed by Weber (2011), the five families of policy theories mostly vary in the definitions of terms and their relationships, as this reflects dissimilarities in the basic understanding of their domain, i.e. the world of policies. Applying one, rather than the other, reflects differences in basic assumptions of how the world of policy operates, what its basic drivers are, the role of agency, and so forth.

Arts (2011) undertakes a systematic review of the use of policy theories in forest policy studies, and compares this to the use of theories in policy sciences in general. For practical reasons, he limits his analysis to the above mentioned families of theories and not to specific theories. His survey of forest policy and policy studies focuses on five families of theories: advocacy coalition framework, critical policy analysis, institutional policy analysis, policy networks analysis, and rational policy analysis. The review demonstrates that forest policy analysts apply similar theories in forest policy studies and follow the same theory fashion and trends as policy scientists in general. The one distinction appears to be that forest policy analysts respond a bit later to new trends in forest policy science than political scientists in general Arts (2011).

The papers in this special issue give some sense of the differences of theories within a single family of theories. Some of the theories within a single family are more specific than others. Both Kleinschmit (2010) and Winkel (2011) refer to the theory that they discuss in their papers as meta-theory. While a meta-theory is ambiguously defined in the literature, in the two papers the term refers to a theory that is applicable to a wider domain and that states relationships between terms and variables that apply to a number of more specific theories. More specific theories apply to a narrower domain and offer a narrower set of relations between terms and variables. In such cases, the theory that focuses on a more specific domain can be considered a "lower order" theory, or a "middle-range" theory, compared to the meta-theory, or the family of theories.

One example that illustrates this hierarchy and nesting of theories is presented by de Jong and Ruiz (2011) who discuss the use of territorialization theory, frontier development theory, and political ecology in a specific forest policy study. Winkel (2011) suggests that political ecology is a lower order theory informed, inter alia, by the broader realm of Foucauldian discourse theory, which he considers a meta-theory within the critical policy analysis family of theories. Two other examples are Van Gossum et al. (2009), who focus on smart regulation theory, and Böcher (2011), who also analyzes the use of policy instruments. Böcher develops a theoretical framework to understand policy instrument selection, criticizing naïve instrumentalism and narrow public choice theory, which to date have been the leading approaches to explain instrument choice. Smart regulation, naive instrumentalism and public choice all belong to the rational