Design Principles for Policy Mixes: Cohesion and Coherence in 'New Governance Arrangements'

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Abstract

New Governance Arrangements (NGAs) have emerged as a lively topic in comparative policy studies and are often proposed as solutions to complex policy problems like environmental or health protection. However, assessing the merits and demerits of particular arrangements or instrument mixes is difficult. The paper proposes a variety of tools to tackle the often-overlooked problem of identifying and inventorying the instruments found in instrument mixes and assessing their likelihood to produce optimal results. A framework is developed for evaluating the likelihood of successful implementation of NGAs that exploits the fact that new policy development is almost always constrained by previous policy choices which have become institutionalized. The degree to which this institutionalization has occurred is seen as variable and the implementation to depend on a number of well-understood processes such as increasing returns and other kinds of positive feedback; sunk costs; and incremental policy learning. The applicability of the framework is demonstrated in the context of NGAs found in the forestry sector.

Introduction

An interesting quandary for comparative public policy analysis arises from the observation that the theoretical promise of a new policy instrument - such as, recently, emissions trading or environmental taxation - is rarely fully realized in practice (Vos 2007). While there are many reasons for this disappointing outcome, analysts have become increasingly aware that the real potential of a new policy instrument to improve policy outcomes lies not in its isolated application, but in the contribution it makes to an existing policy mix (Ganghof 2006; Chapman 2003; OECD 2007; Keast et al. 2006).

That is, most existing policy arrangements or regimes have developed incrementally in an ad hoc fashion over a relatively long period of time and contain a wide mix of policy instruments (Wilson, 2000; Evers 2005; Gunningham and Sinclair 1999). These regimes sometimes contain a unifying overall logic, but more often are the result of policy instruments and programmes being stacked on top of each other in a process which Thelen (2003) and Hacker (2005) have described as 'policy drift' or 'layering'. The results are arrangements of policy instruments that are both complex and costly to administer, often contain counter-productive instrument mixes, and are difficult to change, since key elements confer benefits on well-entrenched interests (Beland 2007; Grabosky 1995; Pierson 1993).

For these reasons, governments around the world grappling with new policy problems have become increasingly interested in crafting and adopting more carefully designed arrangements of instrument mixes or what are sometimes referred to as 'New Governance Arrangements' (NGAs) (Howlett and Rayner 2006a and 2006b). New environmental policy initiatives dealing with issues ranging from pollution control to resource management, for example, are increasingly attempting to re-design entire policy regimes and avoid problems associated with layering and policy drift (Jordan et al. 2003 and 2005).

While NGAs mark a welcome departure from both incrementalism and entrenched preferences for one kind of instrument to the exclusion of all the others (Howlett 2005), NGAs are also not without problems of their own. Some of these problems are political and relate to implementation difficulties, such as weaning key actors off subsidies or re-regulating critical sets of social and economic activities against opposition from those actors benefiting from the status quo. Others, however, are analytical, most notably those connected with the identification of optimal policy designs and the avoidance of sub-optimal outcomes. Policy analysts have often been remarkably cavalier in their descriptions of the nature and limits of particular policy regimes and in their identification of the different policy instruments in a regime. In what follows below we discuss both these issues in the design of integrated policy strategies (Meijers and Stead 2004; Stead et al. 2004).

Policy Instrument Mixes

Policy instruments are techniques of governance which, one way or another, involve the utilization of state resources, or their conscious limitation, in order to achieve policy goals. They are the 'tools of government', the mechanisms and techniques used to implement or give effect to public policies (Salamon 2002). Analysis of the connection between policy regime effectiveness and instrument choice has a reasonably long history, but the focus of attention has changed at least three times.

"First generation" scholars studying the tools of government were concerned largely with the analysis of business-government relations, and with the effects of state regulation and economic policy formation on business efficiency. Although internecine debates between neo-classical and welfare economists over the concept were sharp, first generation instrument choice economists concentrated their efforts upon identifying the market failures which would justify government intervention in market exchange and the possible governance techniques which could 'correct' those failures (Bator 1958; Zerbe and McCurdy 1999; Breyer 1979; Zeckhauser and Schaefer 1968). Other scholars, however, credited political rationales – such as ideological propensities, partisan electoral

calculations or credit-claiming and blame-avoidance behaviour, and others - as the main explanation of instrument selection and regime effectiveness (Lowi 1966; Wilson 1974; Trebilcock and Hartle 1982; Salamon 1981; Weaver 1986; Majone 1989). Public policy makers were not generally thought to be driven by questions of theoretical purity but rather by a more overt political calculus.

The first generation of early instrument analyses suffered from three main problems. First, studies tended to promote a misleading view of either the purely technical or purely political nature of instrument choices. Second, they tended to portray instrument choices in stark, "good and evil" terms, embracing, for example, 'good' pro-market choices and 'evil' non-market ones (or vice-versa) (Woodside 1986). And third, they contributed to a growing gap between complex administrative practices on the ground and overly simplistic theoretical discussions and inquiries.

Not all early studies shared these characteristics, of course, and some analysts presented more complex and nuanced models and analyses of instruments and instrument choices (see for example Bressers and Klok 1988; Hood 1986). Building on the base of case studies and insights developed in these works, "new" or "second generation" students of instrument choice attempted to develop more policy-relevant models of instrument selection processes examining, for example, the role played by policy networks in instrument deliberations and choices (van Nispen and Ringeling 1998; de Bruijn and Hufen 1998; Bressers and O'Toole 1998). Although it was acknowledged that, in some circumstances, governments might well choose particular instruments based on their technical efficiency and theoretical appropriateness, it was argued that this was likely to occur only in very specific circumstances - such as takes place occasionally in areas such as fiscal and monetary policy-making where technical experts can prevail in policy deliberations (Markoff and Montecinos 1993).

These second generation studies were a great improvement on first generation work, but also featured some significant limitations of their own. First, they tended to focus on either those instruments designed to affect goods and service production and delivery in society - "substantive instruments" - , or on those instruments designed to alter policy processes - "procedural instruments" - and ignored their inter-relationships (Howlett 2000 and 2004). And, secondly and relatedly, in almost all cases they also focussed exclusively on single, discrete, instances of instrument selection, even while acknowledging that instrument choices were often made in 'bundles' or accumulated into such bundles or 'mixes' over time (Hood 2007).

Recent, "third generation" work on instruments has attempted to overcome these limitations and apply the models developed by first and second generation theorists to the question of policy instrument mixes and especially to the potential

to develop *optimal* policy instrument designs in complex multi-instrument settings (Grabosky 1994; Gunningham and Young 1997). This latter work represents an effort to correct many of the flaws of first and second generation thinking and addresses the disjuncture between administrative practice and instrument analysis which was a recurring feature of earlier work on the subject (Eliadis et al. 2005).

Third generation work on instrument choice is especially germane to the analysis of New Governance Arrangements, since NGAs represent efforts at integrated policy design and implementation revolving around the construction of policy mixes expected to optimize governments' goals. NGAs, that is, *are* policy mixes designed as integrated strategies and are specifically intended to address the perceived shortcomings of previous, more ad hoc, policy regimes.

Design Principles for Policy Mixes

What, then, are the principles upon which policy mixes – and thus NGAs – can be designed to ensure integration and optimality? Some basic principles have been recommended by proponents of 'smart regulation' such as Neil Gunningham and his colleagues. They suggest designers:

(1) Consider the full range of policy instruments available,

(2) Employ a mix of policy instruments carefully chosen to create positive interactions with each other and to respond to particular, context-dependent features of the policy sector,

(3) In the context of continuing pressures on governments to do more with less, consider incentive based instruments, various forms of self-regulation by industry, and policies that can employ commercial and non-commercial third parties to achieve compliance,

(4) Don't overlook procedural policy instruments such as information instruments, and the various techniques of network management (Gunningham et al. 1998).

While helpful, these suggestions are heavily influenced by Gunningham's specific interest in environmental regulation and are more like maxims or "rules of thumb" than generalizable principles which could allow policy planners and managers to design optimal arrangements in a variety of different contexts. Appropriate policy design requires (1) specifying what kinds of tools are available to be mixed and (2) understanding the factors which allow us to designate any, and any particular, mix as integrated. These two issues are addressed below.

What Tools are Available?: Elements of a Policy Mix

First generation efforts to systematically study policy instruments produced several useful taxonomies of policy instruments (Tupper and Doern 1981; Vedung 1997) whose employment helped shed light on the reasons behind discrete instrument choices (e.g. Linder and Peters, 1989, 1990 and 1992). The taxonomies were especially effective in identifying shifts in patterns of instrument choices, such as those associated with the waves of privatization and deregulation which characterized the 1980s and 1990s (Howlett and Ramesh 2003).

Taxonomies, such as the one first developed by Christopher Hood (1986; see also Anderson 1977) utilizing a 'statecraft' rubric can also be used to identify the basic elements of any policy mix. Such taxonomies group instruments together according to which specific governing resource they rely upon for their effectiveness - in Hood's case, "nodality" (or information), authority, treasure or the organizational resources of government. Hood's schema provides an overall template for assessing the potential components of any policy instrument mix (Figure 1).

Figure 1. A Taxonomy of Eight Basic Policy Instrument Components of a Policy Mix

(Cells provide examples of instruments in each category)

	Principal Governing Resource Used			
	Nodality	**Authority**	**Treasure**	**Organization**
Substantive **General Purpose of Instrument Use**	Advice Training Reporting Registration	Regulation Self-Regulation Licences Census-taking	Grants User Charges Loans Tax Credits Polling	Administration Public Enterprises Policing Consultants Record-Keeping
Procedural	Information provision/ withdrawal	Treaties Advisory committees/ commissions	Interest group funding/ creation	Conferences Commissions of Inquiry Government Re-organizations

Source: Adapted from Christopher Hood, The Tools of Government (Chatham: Chatham House, 1986). 124-125 and Howlett, Michael. "Managing the "Hollow State": Procedural Policy Instruments and Modern Governance." Canadian Public Administration. 43, no. 4 (2000): 412-431.

Here is a set of eight basic types of instruments from which any policy mix is constructed. Each type is, of course, a shorthand expression for a variety of different tools and strategies and the set may seem an unacceptable simplification of a much more complex reality. However, although policy makers are seemingly confronted with a large choice of possible instruments in creating their strategies, the contribution of second generation instrument studies was to reveal that governments often repeatedly choose from a much more limited range of instruments from all the options available. That is, there is a distinct tendency for governments to develop an "implementation style" in various sectors and to stick with this style for quite some time (Kagan and Axelrad 1997; Howlett 2002 and 2005). These implementation styles are composed of a combination or mixture of substantive and procedural instruments, at minimum two. Hence, for example, the well-known implementation style found in many U.S. policy sectors, dubbed "adversarial legalism" by Robert Kagan (1997 and 1991), is composed of a preferred substantive instrument (regulation) and a characteristic procedural one (judicial review) based on widespread, easily accessible legal procedures.

Implementation styles are relatively simple forms of policy mixes, and develop over time as governments attempt to alter the production and distribution of goods and services in society and then find they must legitimate those efforts (Howlett 2000). A good example of such a process is the effort to regulate industries which is invariably accompanied by the creation of advisory committees composed of representatives of regulated groups given special access to governments in order to offset the costs of regulation and subject to further pressure to adopt additional procedural instruments that will allow access by other stakeholders.

The discovery of the presence of implementation styles highlights two important aspects of policy mixes that are relevant to third generation studies: (1) that they usually involve both substantive and procedural elements and (2) that the exact pairing of instruments has an important historical dimension. This implies that an assessment of the adequacy, coherence, or optimality of instrument choices within an instrument mix requires that the specific features of particular mixes be identified and the various available cells in an issue or sectoral profile be filled in, in order to inventory the elements of a mix and assess their coherence; and that how these elements evolved over time be investigated in order to determine their consistency (Howlett et al. 2006).

What Factors Influence Optimality? Coherence and Consistency as Goals of Integrated Strategies

During the 1990s, governments grappled with unfamiliar problems in a context where they often found themselves required to do more with less. Policy makers became increasingly aware of the importance not just of expanding the range of instruments available to them but also of experimenting with new instrument mixes in many sectors, as well as with efforts to rationalize or consolidate older ones. Such "New Governance Arrangements" have been developed in contexts as diverse as health assessments, national forest programmes, integrated coastal zone management (ICZM), safety cultures, integrated water management and others (Hippes 1988; Knoepfel 2005; Miller 1990; Bode, 2006; Briassoulis 2004; Stead et al. 2004).

The result has been a new kind of institutional design, the attempt to develop "Integrated Strategies" (IS) where, in addition to the substantive policy objectives that they pursue, governments also attempt to create or reconstruct a policy domain with coherent policy goals and a consistent set of policy instruments that support each other in the achievement of the goals. NGAs are intended to *combine* policy instruments and their settings in new ways, so that multiple instruments support, rather than undermine one another in the pursuit of policy goals. NGAs also attempt to *integrate* existing, and sometimes competing, policy initiatives into a cohesive strategy; to *coordinate* the activities of multiple agencies and actors; and, generally, to substitute a *holistic approach* to a problem for one that has decomposed policy into a set of multiple and apparently unrelated problems and solutions (Briassoulis 2004, 2005; Stead et al., 2004).

As discussed above, the analytical and practical challenges to understanding and improving NGA designs are twofold. First, the elements of old mixes must be identified and supplemented or replaced with new elements which are more coherent and consistent. Second, the reconstructive effort behind the creation of new designs demands a sophisticated analysis of policy dynamics and instrument choice which must not only deal with the technical questions of replacing an existing set of policy instruments with a new, more integrated one, but also with the political challenges of so doing.

We will address these two challenges to instrument choice theory below.

The New Dynamics of Instrument Choice

The main practical challenge facing integrated NGA designs is that they almost never begin with a clean slate. In fact, most NGA designs are conceived as a result of dissatisfaction with the incoherent goals and uncoordinated instruments that

characterize an existing set of policies over two or more domains (May et al. 2005). The potential outcomes of NGAs can be represented in the following way (see Figure 2):

Figure 2. Typology of New Governance Arrangements according to the relationships between goals and means they embody

		Instrument mixes are	
		Consistent	**Inconsistent**
Multiple goals are	**Coherent**	optimal	ineffective
	Incoherent	misdirected	failed

The variety of possible outcomes is explained by the fact that new policy development is usually constrained by previous policy choices which have become institutionalized. The degree to which institutionalization has taken place – and hence the severity of the constraint it places on policy change – is variable and depends on a number of well-understood processes such as increasing returns and other kinds of positive feedback; sunk costs; and incremental policy learning. Following Hacker, we propose that efforts to create an optimal IS design that pursues multiple but internally coherent goals, using multiple but consistent policy instruments, can fail in three main ways: layering, drift and conversion (see figure 3).

Figure 3. Typology of NGAs according to their relationship with existing policies

		Instrument mixes are	
		Consistent	**Inconsistent**
Multiple goals are	**Coherent**	integration	drift
	Incoherent	conversion	layering

Layering is normally the worst possible way to try to create an NGA, adding new goals and instruments without abandoning previous ones, most often leading to both incoherence amongst the goals and inconsistency with respect to the instruments. Many NGAs suffer this fate, for example, efforts at Integrated Coastal Zone Management (ICZM) which fail when powerful interests accept new arrangements only if they can keep favourable goals, instruments and

settings, such as unsustainable fishing quotas to support an industry, in the new design (Howlett and Rayner 2004 and 2006a).

Drift allows the goals of the policy to change without altering the instruments, which become inconsistent with the original goals and most likely ineffective in achieving them. Instances of this process are manifold, with many analysts observing such processes at work in, for example, welfare state transitions from "welfare to workfare" in which policy goals are coherent (end welfare as we know it) but the tools used to address them are inconsistent or counterproductive (Evers 2005).

Conversion, on the other hand, is the attempt to change the instrument mix in a more tractable policy domain in order to meet new goals in a domain where change is blocked. Building Integrated Land Management (ILM) out of a protected areas strategy, for example, or attempting to use school vouchers to address aspects of social welfare policy, exhibit some of the problems associated with conversion (Miller 1990).

Designing optimal New Governance Arrangements, then, involves ensuring that sub-optimal outcomes emerging from processes such as layering, drift and conversion are avoided. The project to better integrate a previously disordered and incoherent policy domain usually begins with the generation of a statement of key principles that constitutes the "architecture" of the new policy domain. Sometimes these principles will be articulated in a foundational document or statement which undergoes periods of refinement and contestation. Eventually, however, the foundational principles become taken-for-granted elements that constitute the substantive basis of the goal structure of a particular NGA. These are then matched to policy means in the effort to develop a consistent and coherent policy design. It is in the process of matching means and ends, however, that designs can go astray, if, for example, an effort is made to simply adapt existing instruments to the new goals, or if the goals are modified in light of the existing instrument mix.

All these outcomes and processes are apparent in a notable recent effort to develop a coherent NGA in the forest sector: the development in Europe and elsewhere of 'National Forest Programs' or NFPs. The case study of NFP development that follows provides an example of how to address the general challenges of assessing NGAs developed in circumstances where better policy integration is a key objective.

An NGA Case Study: The Development of National Forest Programs

The idea of providing overall coordination and monitoring of the disparate elements of forest policy through a National Forest Program first took shape during the ultimately unsuccessful attempt to negotiate a legally binding international convention on sustainable forest management in the 1990s. Although the negotiations failed to produce a convention, the UN-sponsored IPF/IFF process did result in an 'Action Plan' which, though non-binding, proved influential. The Action Plan contained, among other items, a section on attaining "progress through national forest and land-use programmes" where countries were exhorted to "(d)evelop and implement a holistic national forest programme which integrates the conservation and sustainable use of forest resources and benefits in a way that is consistent with national, sub-national and local policies and strategies" (Humphreys 2004).

There has been a patchwork of responses from different governments to the NFP idea. In some cases, countries were early adopters of formal documents designated as the NFP which, upon examination, largely failed to deliver on the goals of the Action Plan. In other cases, countries have deliberately not adopted a formal NFP, arguing that their existing forest policies were already sufficiently well integrated. The issue rapidly became politicized as INGOs derided the former group as merely paying lip-service to the NFP idea while criticizing the latter as policy laggards. It became clear that, before anything useful could be said about whether NFPs are adequate strategic vehicles for realizing the goals of sustainable forest management it would be necessary to classify the different types of strategies which have emerged in Europe and North America over the past decade.

Classifying NFPs

This question can be answered by examining the two key constitutive elements of an NFP noted by European researchers which allow us to identify NFPs as new governance strategies different from the traditional regime of regulation and subsidy for timber production purposes. That is, in addition to traditional industry supply and production regulation and market promotion activities, NFPs also contain elements which allow or encourage forms of autopoetic network management. These key elements are: (1) mechanisms enabling participatory deliberation, and conflict resolution, and (2) mechanisms for intersectoral coordination and policy learning. The former involve a variety of procedural instruments such as the creation of advisory committees, mediation and arbitration provisions and interest group facilitation which can be either formal

– that is, set out and established in legal and regulatory frameworks – or more informal in nature. The co-ordination and policy learning mechanisms involve various forms of cross-sectoral environmental or industrial planning activities, taking into account additional resource and environmental considerations. These efforts can remain largely symbolic, that is, relegated to overall policy statements and general design principles – or can be substantive in nature, that is, involving the establishment of multi-sectoral committees and implementation agencies (Howlett and Rayner 2006a and 2006b).

The presence or absence of these two key constitutive features allows a robust classification of responses to the NFP idea to be put forward. On the process axis, the leading European NFP adopters, those who have established *formal* NFP participatory processes, are distinguished from those countries where planning for sustainable forest management has taken a different, more *informal* route. On the output axis, we distinguish between forest planning that has resulted in *substantive* co-ordinating efforts, and the kind of planning where these outputs are more *symbolic* than real.

Thus, as Figure 4 shows, in addition to the "classical" NFP - the kind originally envisioned in the international negotiations, where formal consultative processes produce substantive outputs - there is a variety of other possibilities. One possibility is the "Output-Oriented NFP" where a more informal and less holistic planning process is combined with the same substantive outputs envisioned in the original NFP idea. Other, less desirable possibilities include the "legitimizing" or "process-oriented NFP" which creates new formal processes but only symbolic outputs, and the purely 'rhetorical NFP" which contains neither substantive outputs, nor formal processes and is an NFP in name only. In both these latter cases, traditional instrument mixes will continue largely in effect.

Figure 4. Four Main Types of NFPs

		INPUTS/PROCESS ***NFP Mechanisms for Participation and Conflict Resolution***	
	NFP Mechanisms for Co-ordination and Policy Learning	**Formal**	**Informal**
OUTPUTS	**Substantive**	Classical or 'Designed' NFP	Output-Oriented NFP
	Symbolic	Legitimizing or "Process-Oriented" NFP	Rhetorical NFP

Source: Modeled after Americo Carvalho Mendes "Implementation Analysis of National Forest Programmes" in Peter Glueck and Johannes Voitleithner (eds.) NFP Research: Its Retrospect and Prospect, Publication Series of the BOKU Institute of Forest Sector Policy and Economics, vol 52, Vienna 2004, pp. 31-46.

These four types of NFPs correspond to the four types of Integrated Strategies set out in Figure 2 (see Figure 5).

Figure 5. NFP Types as Integrated Strategies

		Instrument mixes are	
		Consistent	**Inconsistent**
Multiple goals are	**Coherent**	Optimal Classical NFP	Ineffective Output-Oriented NFP
	Incoherent	Misdirected Legitimizing NFP	Failed Rhetorical NFP

That is, classical NFPs are those designed with a consistent set of instruments and coherent goals, while failed NFPs are those without either. Output-oriented NFPs, on the other hand, risk carrying over instruments from a previous policy regime, such as bilateral government-industry standard-setting, which prove inconsistent with new instruments aimed at improving stakeholder participation or transparency for consumers. As critics rightly suspect, such inconsistent instrument mixes are likely to be ineffective. NFPs with incoherent goals, such as sustainable forest management and maximizing timber production are likely to be legitimizing at best, even if they feature relatively consistent instrument mixes.

As Glueck and Voitleithner (2004) and Howlett and Rayner (2006) have shown, these types also correspond very closely to the development processes set out in Figure 3 (see Figure 6).

Figure 6. Typology of NFPS according to their relationship with existing policies

		Instrument mixes are	
		Consistent	**Inconsistent**
Multiple goals are	**Coherent**	Integration Classical NFP	Drift Output-Oriented NFP
	Incoherent	Conversion Legitimizing NFP	Layering Rhetorical NFP

Conclusion

Theories of policy instrument choice have gone through three 'generations' (Goggin et al. 1990; O'Toole 2000) as theorists have moved from the analysis of individual instruments (Salamon 1981 and 2002) to comparative studies of instrument selection (Howlett 1991; Bemelmans-Videc 1998; Peters and van Nispen 1998; Varone 2000) and the development of theories of instrument choice (Trebilcock and Hartle 1982; Hood 1986; Linder and Peters 1989; Howlett 2004). Theorists, administrators and politicians have expanded the menu of government choice to include both substantive and procedural instruments and a wider range of options of each, and to understand the important context-based nature of instrument choices (Howlett 2000). "Third Generation" instrument choice theory has now moved beyond simple tool selection, *per se*, to address a series of concerns involved in designing and adopting optimal 'mixes' of instruments in complex decision-making and implementation contexts (Bressers, H. Th. A. & O'Toole, L.J.,2005 as cited in Eliadis et al. 2005).

NGAs are contemporary examples of complex policy designs which require third generation analysis in order to understand the modalities of their development and likelihood of success. The key to understanding NGAs, we have argued, is a more sophisticated theory of instrument choice, one that takes into account both the manner in which current decision-making occurs within the context of rounds of previous decisions and the ultimate ambition to provide a mix of mutually-supporting policy instruments. As our NFP example demonstrates; conversion, layering, and drift can be identified as major

challenges to integrated design; suggesting the need for a better understanding of the causes and consequences of these three key processes. Likewise, sub-optimal outcomes can be identified using a standard of coherence for policy goals and consistency for instrument mixes.

References

Anderson, C W. (1977). *Statecraft: An Introduction to Political Choice and Judgement*. New York: John Wiley and Sons.

Bator, F. M. (1958). The Anatomy of Market Failure. Quarterly Journal of Economics,72(3). 351-379.

Beland, D. (2007). Ideas and Institutional Change in Social Security: Conversion, Layering and Policy Drift. *Social Science Quarterly 88*(1). 20-38.

Bemelmans-Videc, M.L., Rist, R.C. & Vedung, E. (eds.) (1998). *Carrots, Sticks and Sermons: Policy Instruments and Their Evaluation*. New Brunswick: Transaction Publishers.

Bode, I. (2006). Disorganized Welfare Mixes: Voluntary Agencies and New Governance Regimes in Western Europe. *Journal of European Social Policy, 16*(4). 346-59.

Bressers, H. & Klok, P.J. (1988). Fundamentals for a Theory of Policy Instruments. *International Journal of Social Economics, 15*(3/4). 22-41.

Bressers, H. Th. A. & O'Toole, L.J. (1998). The Selection of Policy Instruments: A Network-based Perspective. *Journal of Public Policy, 18*(3). 213-239.

Breyer, S. (1979). Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives, and Reform. *Harvard Law Review, 92*(3). 549-609.

Briassoulis, H. (2004, December). *Policy Integration for Complex Policy Problems: What, Why and How.* Berlin Conference on the Human Dimensions of Global Environmental Change: Greening of Policies - Interlinkages and Policy Integration, Berlin, Germany.

Briassoulis, H. (ed.) (2005). *Analysis of Policy Integration: Conceptual and Methodological Consideration. Policy Integration for Complex Environmental Problems: The Example of Mediterranean Desertification*. H. Briassoulis. Aldershot, Ashgate: 50-80.

Chapman, R. (2003). A Policy Mix for Environmentally Sustainable Development - Learning from the Dutch Experience. *New Zealand Journal of Environmental Law, (7)*(1). 29-51.

de Bruijn, J. A. & Hufen, H. A. M. (1998). The Traditional Approach to Policy Instruments as cited in Peters, B. G. & van Nispen, F. K. M. (eds.). (1998). *Public Policy Instruments : Evaluating the Tools of Public Administration*. New York: Edward Elgar. 11-32.

Eliadis, P., Hill, M. & Howlett, M. (eds). (2005). *Designing Government: From Instruments to Governance*. Montreal: McGill-Queen's University Press.

Evers, A. (2005). Mixed Welfare Systems and Hybrid Organizations: Changes in the Governance and Provision of Social Services. *International Journal of Public Administration*, 28. 737-48.

Ganghof, S. (2006). Tax Mixes and the Size of the Welfare State: Causal Mechanisms and Policy Implications. *Journal of European Social Policy, 16*(4). 360-73.

Glueck, P. & Voitleithner, J. (eds.). (2004). *NFP Research: Its Retrospect and Prospect, Publication Series of the BOKU Institute of Forest Sector Policy and Economics,* vol 52, Vienna 2004.

Goggin, M. L., Lester, J., O'Toole, L., & Bowman, A. (1990). *Implementation Theory and Practice: Toward A Third Generation*. Glenview: Scott, Foresman/Little, Brown.

Grabosky, P. N. (1994). Green Markets: Environmental Regulation by the Private Sector. Law and Policy, 16(4). 419-448.

_____(1995). Counterproductive Regulation. *International Journal of the Sociology of Law,* 23. 347-369.

Gunningham, N. & Sinclair, D. (1991). Regulatory Pluralism: Designing Policy Mixes for Environmental Protection. *Law and Policy, 21*(1). 49-76.

Gunningham, N. & Young, M. D. (1997). Toward Optimal Environmental Policy: The Case of Biodiversity Conservation. *Ecology Law Quarterly, 24*. 243-298.

Gunningham, N., Grabosky, P. & Sinclair, D. (1998). *Smart Regulation: Designing Environmental Policy*. Oxford: Clarendon Press.

Hacker, J. S. (2005). *Policy Drift: The Hidden Politics of US Welfare State Retrenchment. Beyond Continuity: Institutional Change in Advanced Political Economies*. W. Streek and K. Thelen (eds.). Oxford,

Oxford University Press: 40-82.
Hippes, G. (1998). New Instruments for Environmental Policy: A Perspective. *International Journal of Social Economics 15*(3/4). 42-51.
Hood, C. (1986). *The Tools of Government*. Chatham: Chatham House Publishers.
_____(2007). Intellectual Obsolescence and Intellectual Makeovers: Reflections on the Tools of Government After Two Decades. *Governance, 20* (1). 127-144.
Howlett, M., & Ramesh, M. (1993). Patterns of Policy Instrument Choice Policy Styles, Policy Learning and the Privatization Experience. *Policy Studies Review, 12*(1). 3-24.
_____(2003). *Studying Public Policy: Policy Cycles and Policy Subsystems*. Toronto: Oxford University Press.
Howlett, M. & Rayner, J. (2004). (Not so) 'smart regulation'? Canadian shellfish aquaculture policy and the evolution of instrument choice for industrial development. *Marine Policy. 28*(2). 171-184.

_____(2006a). Globalization and Governance Capacity: Explaining Divergence in National Forest Programmes as Instances of "Next-Generation" Regulation in Canada and Europe. *Governance, 19*(2). 251-275.
_____(2006b). Convergence and Divergence in 'New Governance' Arrangements: Evidence from European Integrated Natural Resource Strategies. *Journal of Public Policy 26*(2). 167-189.
Howlett, M. (1991). Policy Instruments, Policy Styles, and Policy Implementation: National Approaches to Theories of Instrument Choice. *Policy Studies Journal. 19*(2). 1-21.
_____(2000). Managing the "Hollow State": Procedural Policy Instruments and Modern Governance. *Canadian Public Administration, 43*(4). 412-431.
_____(2002). *Policy Development*. In The Oxford Handbook of Canadian Public Administration. Dunn, C. (ed.). Toronto: Oxford University Press.
_____(2004). Beyond Good and Evil in Policy Implementation: Instrument Mixes, Implementation Styles and Second Generation Theories of Policy Instrument Choice. *Policy & Society,* 23(2). 1-17.
_____(2005). What Is a Policy Instrument? Policy Tools, Policy Mixes and Policy Implementation Styles. In Designing Government: From Instruments to Governance. Eliadis, P., Hill, M., & Howlett, M. (eds.) 31-50. Montreal: McGill-Queen's University Press.
Howlett, M., Kim, J., & Weaver, P. (2006). Assessing Instrument Mixes through Program- and Agency-Level Data: Methodological Issues in Contemporary Implementation Research. *Review of Policy Research 23*(1). 129-51.
Humphreys, D. (2004). Redefining the Issues: NGO Influence on International Forest Negotiations. *Global Environmental Politics* 4(2). 51-74.
Jordan, A., Wurzel, R. K. W. & Zito, A (2003). 'New' Instruments of Environmental Governance: Patterns and Pathways of Change. *Environmental Politics, 12*(1). 1-26.
_____(2005). The Rise of 'New' Policy Instruments in Comparative Perspective: Has Governance Eclipsed Government?. *Political Studies, 53*. 477-96.
Kagan, R. A. & Axelrad, L. (1997). Adversarial Legalism: An International Perspective as cited in Nivola, P.S. (ed.), (1997). *Comparative Disadvantages? Social Regulations and the Global Economy*. 146-202. Washington, DC: Brookings Institution.
Kagan, R. A. (1991). Adversarial Legalism and American Government. *Journal of Policy Analysis and Management, 10*(3). 369-406.
_____(1997). Should Europe Worry about Adversarial Legalism? *Oxford Journal of Legal Studies 17*(2). 165-83.
Keast, R., Mandell, M., & Brown, K. (2006). Mixing State, Market and Network Governance Modes: The Role of Government in 'Crowded' Policy Domains. *International Journal of Organization Theory and Behaviour 9*(1). 27-50.

Knoepfel, P. (1995). *New Institutional Arrangements for a New Generation of Environmental Policy Instruments: Intra- and Interpolicy-Cooperation.* In Environmental Policy in Search of New Instruments, Dente, B. (ed.). 197-233. Dordrecht: Kluwer Academic Publishers.

Linder, S. H. & Peters, B. G. (1989). Instruments of Government: Perceptions and Contexts. *Journal of Public Policy, 9*(1). 35-58.

_____(1990). Policy Formulation and the Challenge of Conscious Design. *Evaluation and program planning, 13*. 303-11.

_____(1992). A Metatheoretic Analysis of Policy Design. In Advances in Policy Studies since 1950 Dunn, W. N. & Kelly, R. M. (eds.) 201-38. New Brunswick: Transaction Publishers.

Lowi, T. J. (1966). *Distribution, Regulation, Redistribution: The Functions of Government.* In Ripley, R. B. (ed), Public Policies and Their Politics: Techniques of Government Control, New York: W.W. Norton, 1966. 27-40.

Majone, G. (1993). *Evidence, Argument, and Persuasion in the Policy Process.* New Haven: Yale University Press.

Markoff, J & Montecinos, V. (1993). The Ubiquitous Rise of Economists. *Journal of Public Policy, 13*(1). 37-68.

May, P., Jones, B.D., Beem, B.E., Neff-Sharum, E.A. & Poague, M.K. (2005). Policy Coherence and Component-Driven Policymaking: Arctic Policy in Canada and the United States. *Policy Studies Journal, 33*(1). 37-63.

Meijers, E., & Stead, D. (2004). *Policy Integration: What Does It Mean and How Can It Be Achieved? A Multi-Disciplinary Review.* Paper presented at the 2004 Berlin Conference on the Human Dimensions of Global Environmental Change: Greening of Policies - Interlinkages and Policy Integration, Berlin, Germany.

Mendes, A. C. (2004). Implementation Analysis of National Forest Programmes" in Glueck, P. & Voitleithner, J. (eds.). NFP Research: Its Retrospect and Prospect, Publication Series of the BOKU Institute of Forest Sector Policy and Economics, vol 52, Vienna 2004. 31-46.

Miller, S. M. (1990). The Evolving Welfare State Mixes. In Shifts in the Welfare Mix: Their Impact on Work, Social Services and Welfare Policies. Evers, A. & Winterberger, H. 371-88. Frankfurt: Campus Verlag.

OECD. (2007). Instrument Mixes for Environmental Policy. Paris: OECD.

O'Toole, L. J. (2000). Research on Policy Implementation: Assessment and Prospects. *Journal of Public Administration Research and Theory,*10(2). 263-288.

Peters, B. G. & van Nispen, F. K. M. (eds.) (1998). *Public Policy Instruments: Evaluating the Tools of Public Administration.* New York: Edward Elgar.

Pierson, P. (1993). When Effect Becomes Cause: Policy Feedback and Political Change. World Politics, 45. 595-628.

Salamon, L. M. (1981). Rethinking Public Management: Third-Party Government and the Changing Forms of Government Action. *Public Policy, 29*(3). 255-275.

Salamon, L. M., (ed.) (2002). *The Tools of Government: A Guide to the New Governance.* New York: Oxford University Press.

Stead, D., Geerlings, H. & Meijers, E. (eds.). (2004). *Policy Integration in Practice: The Integration of Land Use Planning, Transport and Environmental Policy-Making in Denmark, England and Germany.* Delft, Delft University Press.

Thelen, K. (2003). *How Institutions Evolve: Insights from Comparative Historical Analysis.* Comparative Historical Analysis in the Social Sciences. Mahoney, J. & Rueschemeyer, D. (eds.). Cambridge, Cambridge University Press. 208-240.

Trebilcock, M. & Douglas G. H. (1982). The Choice of Governing Instrument. *International Review of Law and Economics, 2*. 29-46.

Tupper A. & Doern, G.B. (1981). *Public Corporations and Public Policy in Canada.* In Tupper A. &

Doern, G.B. (eds.). Public Corporations and Public Policy in Canada. Montreal: Institute for Research on Public Policy. 1-50.

van Nispen, F. K.M. & Ringeling, A.B. (1998). *On Instruments and Instrumentality: A Critical Assessment.* In Peters, B. G. & van Nispen, F. K. M. (eds.). Public Policy Instruments: Evaluating the Tools of Public Administration, New York: Edward Elgar. 204-217

Varone, F. (2000). Le Choix des Instruments de l'action Publique: Analyse Comparee des Politiques Energetiques en Europe et en Amerique du Nord. Revue Internationale de Politique Comparee, 7(1). 167-201.

Vedung, E. (1997). *Policy Instruments: Typologies and Theories.* In Rist, R.C., Vedung, E. & Bemelmans-Videc, M. L. (eds.). Carrots, Sticks and Sermons: Policy Instruments and Their Evaluation. New Brunswick: Transaction Publishers. 21-58.

Vos, J.P. (2007). Innovation Process in Governance: The Development of 'Emissions Trading' As a New Policy Instrument. *Science and Public Policy, 34*(5). 329-43.

Weaver, R. K. (1986). The Politics of Blame Avoidance. *Journal of Public Policy, 6*(4). 371-398.

Wilson, J. Q. (1974). *The Politics of Regulation.* In McKie, J. W. (ed.). Social Responsibility and the Business Predicament, Washington: Brookings Institute. 135-168.

Wilson, C. A. (2000). Policy Regimes and Policy Change. *Journal of Public Policy 20*(3). 247-71.

Woodside, K. (1986). Policy Instruments and the Study of Public Policy. *Canadian Journal of Political Science, 19*(4). 775-793.

Zeckhauser, R. & Schaefer, E. (1968). *Public Policy and Normative Economic Theory.* In Bauer, R. A. & Gergen, K. J. (eds). The Study of Policy Formation, New York: The Free Press. 27-102.

Zerbe, R. O. & McCurdy, H. E. (1999). The Failure of Market Failure. *Journal of Policy Analysis and Management. 18*(4). 558-578.