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Innovations in governance: balancing air quality and road development

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Abstract

Research shows that air pollution poses a considerable threat to human health. In the Netherlands, however, air quality issues were especially a hot topic because air quality regulations hampered the provision of new infrastructure. In this paper we focus on the dilemma between infrastructure development and air quality regulations in order to gain more insight into the general dilemma between development and environmental protection. By means of a case study into the National Collaboration Programme on Air Quality in the Netherlands we investigate to what extent a shift from government to governance, which is suggested in literature, is able to overcome this dilemma. We focus on the implications of this shift in the field of infrastructure policy. To do so, we have followed the programme for multiple years and conducted several rounds of interviews with important stakeholders on national, provincial and municipal level.

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1. Introduction

Transport and infrastructure planning is confronted with various developments taking place on both international and national policy levels. First, ever since the publication of the Brundtland Report in 1987, the notion of ‘sustainable development’ (WCED, 1987) began to influence general thinking on transport planning and infrastructure realization (see, for example, Arts, 2007; Bannister, 2008; Whitmarsh et al., 2009). Second, various researches by the World Health Organisation (e.g. WHO, 1987, 1999, 2005) incited a discussion about the importance of public health and the negative impact of (urban) transport and traffic on public health. Particularly noise and air pollution were considered to be major threats. This has led to the establishment of guidelines and regulations by the WHO, the European Union, and the US Environmental Protection Agency to protect society. Third, especially on European level, there is a growing attention for Environmental Policy Integration (EPI), which calls for “cross-sectoral policy integration as a means to ‘green’ all economic activities already at the planning stage” (Lenschow, 2002:4).

Transport and infrastructure planning is still searching for a proper governance response to deal with these developments. So far, as illustrated by Bannister (2005), the contribution of transport planning towards sustainability has been rather limited. In fact, Jordan (2008) speaks of a “very acute feeling [...] that things have gone worse – not better – since the publication of Brundtland’s landmark report” (p. 17). Transport growth has generated increasing environmental impact, and especially the road transport sector “contributes significantly to emissions of a number of pollutants” (European Environment Agency, 2011, p. 72). Particularly the considerable emissions of mono-nitrogen oxides (NO₂) and Carbonic Oxide (CO) are considered to be problematic. Moreover, although some EPI initiatives are being developed on a local level and within an urban context (see, for example Miller and De Roo, 1999) the general picture of the EMCT (2001) is that policy integration “has proved easier said than done”.

As shown by Banister et al. (2011) transport and infrastructure policy has been largely focused on developing new infrastructure in order to provide for the growth in transport, while, as Hertin and Berkhout (2003) and also Carter (2007) point out, environmental policy making was aimed at environmental protection by imposing rules, norms and regulations on development activities as transport infrastructure development. It is this simultaneous desire for infrastructure development and environmental protection which makes policy integration so difficult – but not impossible – to achieve.

An increasing amount of literature has pointed towards possible strategies to deal with this dilemma. Kjaer (2004) and Lejano and Ingram (2009), for example, emphasize participation by the private and voluntary sector through policy networks and deliberative forums to establish shared understanding and common goals. Bulkeley and Betsill (2005) focus on relations between policy levels and contend that multiscale coalitions between different levels of administration can be a way to overcome the dilemma. Jordan et al. (2005) focus on the introduction of new instruments and show an expanding policy toolbox in which market based instruments, voluntary agreements and informal devices are introduced as a means to stimulate self-governing behavior.

This shift in styles of steering away from governmental ‘command and control’ towards open and more flexible forms of governance is generally referred to as a move from ‘government’ towards ‘governance’ (Kooiman, 1993; Pierre and Peters, 2000; 2005; Hysing, 2009a). According to Stoker (1998), government can be characterized by “its ability to make decisions and to enforce them” whereas the essence of governance is “its focus on governing mechanisms which do not recourse to the authority and sanctions of government”. Although the trend towards governance is seen by many authors in different fields in public policy, the transport and infrastructure sector has proved to be rather resilient towards this change (Banister, 2005; 2008; Hysing, 2009b).

Recently, however, in the Netherlands the National Collaboration Programme on Air Quality (in Dutch: *Nationaal Samenwerkingsprogramma Luchtkwaliteit* [NSL]) was introduced. The dilemma at the heart of this programme was the simultaneous need for new infrastructure, in this instance national highways, and compliance with strict air quality standards. In order to overcome this dilemma, the NSL combined elements of infrastructure and environmental planning into a new governance approach.

However, in transport and infrastructure policy a governance approach balancing environmental and infrastructural goals is rather new and yet limited insight regarding such an approach is available. The aim of this paper is threefold. With help of an in-depth case study into the NSL we, first, elaborate on the dilemma between development and protection. Then, we consider in what way a shift from government to governance can help to deal with this contradistinction. Thirdly, we investigate the implications of this shift.

The methodological approach underpinning this paper includes desk research, semi-structured interviews and workshops. We followed the NSL from conception till present, all in all a period of three years. During this time we conducted two rounds of semi-structured interviews. In sum, we conducted over fifty semi-structured interviews with important stakeholders on the national, regional and local level. In these interviews we have focused on the implications of the dilemma; institutional, organizational and governance responses; and stakeholder perspectives on collaboration. The results of these interviews have been discussed in workshops in which a range of professionals participated. Additional information was acquired through analysis of policy documents and scientific accounts of developments in the air quality domain.

In the following sections we will first elaborate on the dilemma of contrasting infrastructural and environmental goals. We specifically focus on the way infrastructure development is delivered and the institutional context in which this takes place. In the next section we investigate the shift from government to governance to deal with this dilemma. In section four we present the results of our case study into the NSL, which are being analyzed and discussed in section five. In section six we will draw our conclusions and present recommendations for planning practice,

2. Problematic infrastructure delivery

Although the negative impact of transport on the environment is acknowledged in both sectors (see, for example Barde and Button, 1990; Banister and Button, 1993), environmental and transport policy is being developed in separate policy fields. On the one hand, as Hysing (2009) explains, “transport is institutionally set-up as a separate policy area, governed by authorities and organizations that are only responsible for transport” (p. 244). On the other hand, while environmental policy integration (EPI) is being advocated on especially European level (Lenschow, 2002; Jordan and Lenschow, 2008) in practice it comes up against “the hard political realities in the sectors” (Jordan and Lenschow, 2010, p. 149). Both fields are determined by their own policy-domain-specific factors, vested interests and networks, and characterized by their own mode of governance.

As shown by Banister et al. (2011) transport policy has been largely focused on the realization of new infrastructure in order to provide for the growth in travel. Taking into account that, as modeled by Schafer and Victor (2000), worldwide mobility will increase spectacularly on the long term, additional infrastructure will be necessary. Although Schafer and Victor (2000) point towards the need of high-speed modes of transport, most travel will still be done by car. Therefore, we focus specifically on the provision of new road infrastructure.

As shown by Short and Klopp (2005) and Arts (2007), due to the high investment costs and considerable environmental impact road infrastructure planning and realization is often dominated by the central government. According to Bannister (2005) infrastructure planning can be characterized by a

deductive approach of data collection, defining goals and objectives, and forecasting future demands in order to solve mobility issues in a technical way. In line with the ‘decide-announce-defend’ governance strategy (see, for example, Susskind, 1985; Walesh, 1999), the central government decides that additional infrastructure is necessary. Subsequently, a project is defined on the basis of a detailed and extensive problem definition made entirely within the government. In this approach the participation of other actors is rather limited. As indicated by Romein et al. (2003), local and regional actors are often only involved in later stages “when most fundamental decisions already have been made, and these stakeholders are confronted with a *fait accompli*” (p. 211). Thus, initial decisions are made by agency experts, announced to other actors and the public and then defended against criticism.

Although De Roo (2003) and Hertogh and Westerverld (2010) claim that this mode of governance might be successful in some instances, Walesh (1999), Stave (2002) and Bell et al. (2005) contend that in practice it does more harm than good. The conflict between infrastructure development and environmental protection provides a prime example which shows the limitations of this approach (see, Linden and Voogd, 2004; Arts, 2007). Zuidema (2011), for example, points towards different perceptions on this dilemma between different layers of authority. On the national level, benefits of new infrastructure can spread among many citizens or localities, whilst costs, including possible environmental stress, are confined to a small subset of society (i.e. a single region or locality). “Typically, what is locally considered as the desirable (comparing local costs to local benefits) will be different than what is nationally considered as desirable (comparing national costs to national benefits)” (p. 32). As a consequence, struggles between different layers of authority are likely to develop.

Environmental rules and regulations further complicate the matter. Although, as Jordan et al. (2005) indicate, a shift towards ‘new’ policy instruments as ‘trading mechanisms’ and ‘negotiated agreements’ is noticeable in environmental governance, in practice the focus is still on ‘command and control’. Instruments as legislation and normative tools are still ‘the way to go’ (compare Hertin and Broekhout, 2003; Zuidema, 2011).

However, as both strive to reach their ambition formulated within their own ‘policy silo’, conflict between the two arises ‘on the ground’, at project level. On the one hand, many narrowly defined infrastructure projects are constrained by strict environmental rules and regulation, while on the other hand complying with the strict (European) environmental standards is being counteracted by the delivery of new infrastructure projects.

A particular case in which this tension between infrastructure development and environmental protection becomes an especially pressing problem is the Dutch air quality dossier. Below we will introduce the dilemma at the heart of this matter. To do so, we have made use of desk research, semi-structured interviews and workshops – the data sources mentioned in the introduction. A full overview of the methodology can be found in section four, where we focus in-depth on the *Nationaal Samenwerkingsprogramma Luchtkwaliteit [NSL]*.

Setting the scene: Air quality versus infrastructure development

Due to its high population density, trade economy, industry, intensive agri- and horticulture, and large (international) transport flows, the Netherlands, in comparison to other countries, has to deal with a high pressure on the environment. In the case of European air quality regulation, this posed the Netherlands for a dilemma. On the one hand, strict European standards were considered to be necessary to relieve some of the environmental burden (Groot, 2001; Rood et al., 2005). On the other, studies had shown that obtaining these strict air quality norms in the Netherlands would become very complicated and costly (Bloemen et al., 1998; TK 2000-2001).

For a long time, the Netherlands was considered to be a fore runner in the field of environmental policy (see, for example De Roo, 2003; Zuidema, 2011). In the negotiation process on Directive 1999/30/EG, which contains standards for different air polluting matters, the Dutch wanted to live up to this status. Therefore, the Netherlands approved strict standards, but emphasized the need for communal source-related measures at the European level (Rood et al., 2005; VROM-raad, 2008). Once (verbal) agreements on communal source-related policies were made, the Dutch adopted the EU Directive and it was implemented in the Dutch legislative system by means of the Decree on Air Quality under the Dutch Environmental Management Act. The Decree stated that all spatial and infrastructure projects had to take the European air quality standards into account.

However, drastic European source-related policies remained in default (see, for example COM, 2005). Consequently, when the first cases appeared before the *Raad van State*, the highest Dutch administrative court, this court concluded that the execution of spatial and infrastructure projects was in conflict with the Dutch ambition to reach the European standards. Furthermore, as detailed analysis by Backes et al. (2005) and Koelemeijer et al. (2005) shows, the Decree was interpreted by the *Raad van State* in an unexpected and, comparatively, very strict way. Given the high environmental burden, in large parts of the Netherlands the norms were largely transgressed (see, for example Matthijsen and Visser, 2005; Folkert et al., 2005). In view of this situation, paradoxically, the Raad van State considered projects to be contributions to make sure that the European standards were reached. This meant that the amount of mitigating measures in each project had to be that large that the general state of the air quality would improve to such an extent that the European standards would be obtained.

This interpretation of the Decree had a dramatic impact on all spatial and infrastructure projects. Mitigating measures to radically improve the air quality could not be taken within the limited scope of separate projects (RWS, 2009). Therefore, many projects came to a standstill. To illustrate, internal research at Ministry of Transport indicated that only one out of ten of their projects could proceed.

To respond to this crisis, a variety of instruments has been discussed. Examples range from disconnecting project consent and environmental standards (which only remained a discussion) towards instruments as sea salt deduction, which means that natural particles as sea salt no longer had to be taken into account. Despite all efforts, the general conclusion in the interviews at all levels of authority (national, provincial and municipal) was that the only way out was a proactive and collaborative approach. As stated by an interviewee from an examining agency, *“we frequently had to draw the conclusion that a project simply could not comply with the air quality standards. In order to come up with a solution, we needed to work together, beyond the scope of the separate projects”*. As a national policy officers notes *“we started to realize that if we really wanted to break through the deadlock, we needed the decentralized governments. As central government, we simply could not resolve it on our own”*.

3. Breaking through the deadlock: shifting from government to governance

It becomes clear that the traditional ‘decide-announce-defend’ approach is unable to deal with the dilemma between development and environmental protection. The central government has to acknowledge that setting their own targets and implementation trajectories independent of other policy actors is no longer an option. Instead, as the air quality dilemma shows, an integrated approach in which the central government cooperates with the decentralized governments in order to realize both national and regional targets is ‘the only way out’.

The fact that role and the governing capacity of the central government has changed is widely acknowledged in literature (see, for example, Kooiman, 1993; Stoker, 1998; Pierre and Peters, 2000; 2005). The central government is no longer considered to be able to “articulate and pursue collective action and impose its will on society” (Hysing, 2009, p. 647), instead “governments have become

increasingly dependent upon the co-operation and joint resource mobilization of [other] policy actors” (Borzel, 1998, p. 260). Although it is generally acknowledged in literature that the role of the central government is changing, the actual extent of this change is part of an ongoing debate in planning and governance literature. Hysing (2009) suggests to consider this change from government to governance as “two poles on a continuum along which the role of the state varies from direct state intervention [...] to extensive societal autonomy, that is, [in] self-organized and self-governing [...] networks”

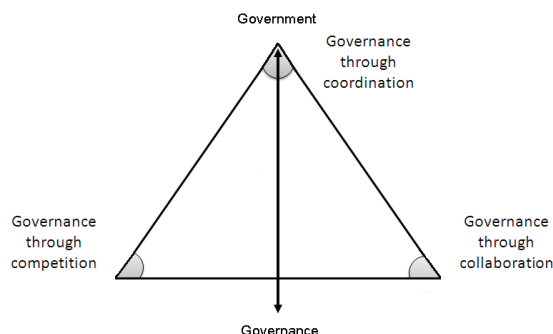


Figure 3.1: Three ideal modes of governance to analyze the shift from government to governance

As depicted in figure 3.1, Martens (2006) proposes three ‘ideal’ governance models through which this shift on the continuum can be analyzed: ‘governance through coordination’, ‘governance through competition’ and ‘governance through argumentation’. In doing this, governance is not opposed to government styles of steering. Rather, as also Stoker (1998) suggests, what is called ‘government’ is seen an example of how governance can be organized. In the meantime there are also other ways through which governance can be organized. So, what is called a shift government to governance, can be seen as a move away from one dominant model of governance (i.e. ‘government’), towards

alternative modes of governance.

Governance through coordination comes closest to what has been earlier described as a ‘government style of steering’. In this model the public sector is the governing body (Martens, 2006) which is considered to represent collective interests best. They exercise authority by issuing government regulations and laws to ‘command and control’ the private realm which is to be ‘governed’. To maintain unity in both policy formulation and implementation, coordination is to be enforced by the central government.

In the case of the governance through competition mode, the ‘market’, much like Adams Smith’s ‘invisible hand’ is seen as the self-regulating mechanism among actors. Societal needs are delivered through demand and supply mechanisms. Governance is considered to be a competition between actors with diverse interests. Involved actors formulate their own interests, policies and preferences and will struggle with other competing actors to achieve their goal. Cooperation occurs on the basis of mutual benefit; for example, when one party is prepared to ‘pay’ the other party enough.

Instead of competition as key driver, the ‘governance through argumentation’ mode considers public reasoning and argumentation to be the coordinative mechanism in making decisions and combining objectives. Similarly, “the basic ideology that underlies this body of literature is the idea that governance should be a process of argumentation between all involved ‘stakeholders’” (Martens, 2006, p. 47). In ‘governance through argumentation’ authority does not originate with governments, but with the collective of stakeholders. Based on interactions between them, choices are made. Ideally, they will reach consensus about what is considered the best solution, based on a “process of collaboration and learning” (Woltjer, 2000, p. 25). Consequently, just as ‘governance through competition’, bottom up self governance processes of interacting actors are considered the coordinative mechanisms that produce strategies and actions. The difference with the competitive model lies therein that “the focus is on the knowledge, assumptions, arguments and solutions these actors bring to the table, rather than on the formal responsibilities, power resources and interests of the actors” (Martens, 2006, p. 47)

On the basis of these three ideal modes of governance, we will analyze our case described below.

4. From government to governance in infrastructure planning: the National Cooperation Programme on Air Quality

To gain more insight in the practical implications of this shift from government to governance, we focus on a clear example in infrastructure planning which has been developed as a response to overcome the dilemma between infrastructure development and obtaining air quality standards. We followed the National Cooperation Programme on Air Quality (hereafter *NSL*, after its Dutch acronym of *Nationaal Samenwerkingsprogramma Luchtkwaliteit*) from conception till present, a period of three years time.

Although air quality issues were prominent in many European countries, as depicted in figure 4.1, we focus specifically on the Netherlands. This, due to the fact that, as for example Backes et al. (2005) and Koelemijer et al. (2005) show, the European standards in this country were being interpreted as hard norms that had to be obtained ‘no matter what’. Due to the strict interpretation of the European standards in Dutch legislation balancing air quality matters with infrastructure development was simply not an option. As a consequence, as shown stated by the VROM-raad (2008), whereas in other countries air quality issues played a marginal role, only one or two court cases, the number of court cases in the Netherlands quickly rose to over a hundred. The dilemma is thus particularly prominent in the Netherlands.

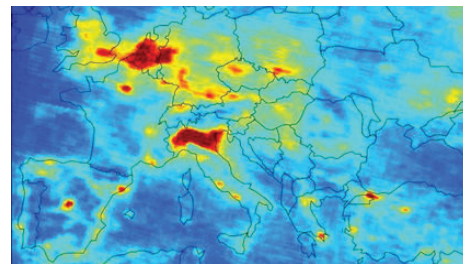


Figure 4.1: The red dots indicate high concentration of nitrogen dioxide.

Source: ESA, 2004

Data collection strategies

Multiple data sources have been used to gain in-depth knowledge. First, we have studied court readings by the *Raad van State*, the highest Dutch administrative court (available at www.raadvanstate.nl). Secondly, we have undertaken desk research in which we have scrutinized various types of documents as press releases, verbatim accounts of political debates and public speeches, and policy documents. We also analyzed available scientific accounts of developments in this policy domain. Thirdly, we have conducted two rounds of interviews with stakeholders involved in the *NSL*: the programme that has been developed as a response to the pressing dilemma. Using open-ended thematic questions, 54 semistructured interviews were conducted with a wide range of stakeholders (the ministries of Transport and ‘Housing, Spatial Planning and the Environment’ [*VROM*], provinces, municipalities, supportive government agencies, interest organizations, and consultancy and law firms). In the first round of interviews we focused on the development the programme. We conducted 41 interviews. Important themes in these interviews were the institutional context and the conditions under which the programme was established; the different modes of governance in environmental and infrastructure planning; and stakeholder perspectives on collaboration. In the second round we conducted 13 interviews. In this round we focused particularly on developments in the context of the programme and shifts in stakeholder perspective on collaboration. The primary importance all conducted interviews is that they: (1) helped map important governing arrangements, actors, and instruments within the two policy areas; (2) provided important insight into the actual workings of different modes of governance; and (3) validated and elaborated on previous research results and policy statements and documents.

After each round of interviews a report was made (see Busscher et al., 2010; Busscher et al., 2011). These reports were made on the basis of the conducted interviews and discussions about the concept versions of the report in a workshop setting. In the workshops our empirical data was discussed with a wide range of professionals. The comments of both the workshop participants and the interviewees were taken into account in the final reports. This helped to gain further insight and to establish a consistent and coherent narrative about the developments in the air quality dossier as is outlined below.

Getting beyond the impasse: Establishing a collaboration programme

As has become clear in section 2, due to the contradicting ambitions within the Netherlands to comply with strict air quality standards and at the same time develop new infrastructure a stalemate was reached. As newspaper headlines stated *“the Netherlands got locked up”* (see, e.g. NRC Handelsblad, October 23rd 2007; Volkskrant, July 5th 2007). Options to resolve this issue within infrastructure policy (e.g. placing barriers, decreasing the maximum speed) or in the environmental policy field (consultation with the European Commission) were not effective enough. Integration of the two policy fields and collaboration among different policy levels was seen as the only way out. As a former national policy officers states *“two drivers could be identified in the air quality dossier. On the one hand, infrastructure projects had to proceed again. On the other, environmental standards had to be obtained. The trick was to find abstract goals that everybody would agree on. We had to align many different interests in such a way that all stakeholders became interdependent. Everybody had to understand they could not reach these goals on their own”*. A municipal policy officer adds *“We had to work together; we simply could not make it on our own.”*

However, the Ministry of VROM and the Ministry of Transport have different perspectives on spatial planning and the environment (Van Wee, 2010), which complicated collaboration. As a policy officer denotes *“it was a real challenge to combine the two worlds of the Ministry of VROM and Transport with each other. The departments were in opposite positions”*. Eventually, under high political pressure, a programme manager of the ministry of Transport was appointed to work within the ministry of VROM. His main task was *“to make sure that we could build again”*. In order to persuade the ministry of VROM into collaborating with the ministry of Transport, and vice versa, a programme was established that contained two challenging goals: first, the air quality in the Netherlands will improve to such an extent that the European standards are being reached, and second, this despite the delivery new infrastructure projects. These goals should be obtained on different time scales. Infrastructure projects could proceed right away, while the two ministries would jointly undertake mitigating measures to improve the air quality. Together, these jointly undertaken measures should clean the air that much, that despite the realization of infrastructure projects, the standards for particulate matter are being reached in 2012 and nitrogen dioxide in 2015.

In order to gain overview of the whole situation, first an extensive monitoring tool was developed. The basis of this tool is sophisticated model which calculates the air quality on the basis of autonomous developments in shipping, agriculture, industry, etc., and the number of cars on the road. This was used in order to project future developments. The monitoring tool also calculated the impact of all spatial and infrastructure development. Taken together, for the first time, the parties gained full overview of what to be done. Somewhat surprisingly, the picture was *“not too bad. The amount of pollutants seemed to gradually decrease. This gave us the idea that we could really do it”*, as said by a modeller. This opinion is resonated in Korver and De Bruijn (2006) and Matthijsen and Koelemeijer (2010).

However, in order to ‘do it’, to make sure that everywhere in the country the air quality standards are being reached, slowly but surely the central government started to realize that cooperation with the decentralized government was necessary. Also local governments had encountered severe problems

regarding air quality which could not be solved on the local level (see, for example, COM, 2007; Gemeente Rotterdam and Stadsregio Rotterdam, 2011). However, the decentralized governments had always perceived the Ministry of VROM as little responsive towards the local needs. According to, for example Zuidema (2011), environmental policy within the Netherlands could be characterized by a “strong role of regulatory instruments and state intervention” (p. 190). As stated by a municipal officer *“usually, the Ministry of VROM did very little. It usually passed the buck to lower governments, without thinking through how they were supposed to deal with these issues in practice”*.

To change this mode of operation is considered to be the major achievement of the programme manager. Interestingly, in interviews with other government agencies (ministry of Transport, provinces and municipalities) his role is valued, while within the Ministry of VROM, his role is downplayed.

With help from top management, the programme manager was able to break through the high walls within the ministry and started to a dialogue with both different national ministries as well as with the local and regional governments. As a national policy officer indicates, *“For the first time, we really listened to what the other government agencies had to say”*. Local and regional governments had the idea that *“finally, what we said really mattered”*. A joint search for mitigating measures was undertaken. In this search the knowledge of all involved parties was necessary to deal with the issue. As a municipal policy officer states *“I am sure that without the input of the municipalities, the programme would not have been there. In many occasions the central government indicated that they got stuck. Thanks to the knowledge and creativity within the municipalities, we were always able to find a solution.”*

Eventually, in the period 2005 -2009, agreement was reached on the National Cooperation Programme on Air Quality (Ministry of VROM, 2009). In this programme, the ministries of VROM and Transport work together with provinces and municipalities towards two goals: (1) the European standards will be obtained, (2) spatial and infrastructure development has to proceed again. To enable this, the programme contains a package of mitigating measures which cumulative impact will theoretically outreach the negative impact of all undertaken infrastructure projects. On the national level, the ministry of Transport, for example agreed on introducing road pricing in order to diminish the amount of traffic, provinces agreed to clean up their fleet of cars, and municipalities introduced environmental zones, which means that specific vehicles (for example trucks) are no longer allowed in specific parts of the city. The effects of all these mitigating measures will be monitored on an annual basis. In case some of the measures will not bring about the estimated effects, all parties agreed to jointly undertake additional measures.

Executing the Programme: Is Cooperation Enough?

At this moment, the situation has changed. The programme is now two years underway and an extensive monitoring tool has monitored the progress in goal achievement. New calculation methods and disappointing effects of mitigating measures put goal achievement under pressure (Velders et al, 2011; Gemeentelijke Rekenkamers, 2011; Busscher et al., 2011). As indicated by a provincial policy officer, *“So far, the programme has not really worked out well. On the one hand radical measures are needed, but not being taken, while on the other, the effects of measures that are being taken is constrained by growing traffic and transport”*. Jointly undertaking additional measures proves to be easier said than done (Busscher et al., 2011). While the involved parties still acknowledge that they are interdependent, the decentralized governments emphasize that is predominantly *“the central state [that] should undertake action”* (see, for example, Gemeentelijke Rekenkamers, 2011; VNG, 2011; IPO, 2011). In the same time, on national level politicians seem to have lost interest in the programme. To illustrate this, a municipal policy officer states *“given the results of the last monitoring round, additional mitigating measures are considered to be necessary. We need the help central state in this. Yet, we do not receive any indication that this is about to happen. To put it even stronger, informally, we get to hear ‘this cabinet is not*

focusing on air quality matters anymore...’”. So, even though involved parties acknowledge that they are dependent on each other in obtaining the programme goals and have committed to take joint action, the process to establish a collective response to deal with the situation has been lengthy and difficult (Busscher et al., 2011). *“Since its establishment, the programme seems to have lost momentum”* as indicated by a provincial policy officer. The cooperation among actors appears to be under pressure. The central state and lower governments are no longer totally in line with each other. Tensions start to develop as the focus of involved actors starts to shift from the general, overarching programme goal to obtain the air quality standards towards just the implementation of their own small set of mitigating measures. Other than *“the real possibility that we might not obtain the European standards in 2015”* as stated by a municipal policy officer, incentives to deal collectively with new encountered problems are not being felt. This seems to put goal achievement on programme level under pressure and continuing in the same way is not without risk. As a legal expert states: *“at all cost, we should prevent that this programme fails.[...]. The only way to make sure that make it, is when the central government comes up with a directive plan which indicates what action needs to be taken by whom”*.

5. Analysis

Above we describe the National Cooperation Programme on Air Quality [NSL]: a programme that is aimed towards overcoming the dilemma between infrastructure realization and protection and improvement of the air quality. This programme presents an interesting paradox. On the one hand, the case shows the struggle of involved stakeholders to move away from the coordinative model of governance towards a more argumentative mode of governance as we presented in section 3. Instead of coercing other governments into a specific solution strategy to deal with the dilemma, the central government realizes that cooperation with different ministries on the national level and with decentralized governments is necessary to overcome this dilemma. The establishment of the programme contains a joint search for solutions in which both generic knowledge of the national governments and local knowledge of provinces and municipalities is needed to come up with a variety of different mitigating measures. Furthermore, all parties agree to jointly undertake additional measures in case the effects of already taken measures are disappointing or when unexpected events take place.

On the other hand, now that the programme is established and mitigating measures are being implemented, goal achievement is under pressure. The focus of the involved parties shifts from obtaining the general goals towards implementing their own subset of mitigating measures, which have to be implemented somewhere before 2015. This puts pressure on the cooperation between the involved parties. Paradoxically, as depicted in figure 5.1, although the programme shows a move away from the coordinative model (i.e. ‘government’) towards an argumentative mode of governance (i.e. ‘governance’), it now seems to require a more ‘coordination-oriented’ approach again. The question is how is this possible?

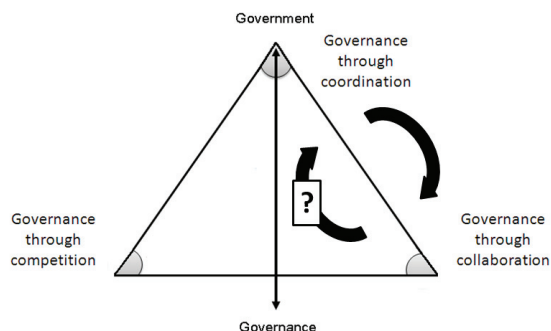


Figure 5.1: Developments in the case of the National Cooperation Programme on Air Quality

Cooperation is not the same as integration

To find an answer to this question we first focus on the relationship between what Zuidema (2011) refers to as ‘scope of goals’ and ‘scope of relationships’. The former relates to the type of objectives that are to be achieved. Based on De Roo (2003), Zuidema (2011) discerns two types of objectives ‘single fixed goals’ and ‘multiple composite and dependent goals’. The former refers to a situation in which single goals are formulated which are “derived from a single problem” and by which “a measurable result can be achieved” (De Roo, 2003, p. 105). These goals are commonly found both in the field of infrastructure and environmental policy. Setting air quality standards can be seen as an example. However, as becomes clear in our case description, achieving this goal can cause conflict with other goals, for example realizing new infrastructure. Essentially then, a choice is required based on a trade-off, or as Vander der Graaf and Hoppe (1996) suggest, the exercise of power in favor of one objective. However, to De Roo (2003) there is also the alternative where incompatibility between objectives can potentially be solved by developing ‘multiple objectives’. This approach involves “linking of issues, bundling of solution strategies, and multiple goal realization by combining different issues within a single solution strategy” (p. 106). This entails a shift in focus from fulfilling predefined ends towards a process which provides for bargaining and accommodating alternative behavior (Zuidema, 2011, compare Christensen, 1985; De Roo, 2003).

Both De Roo (2003) and Zuidema (2011) presuppose that this ‘scope of goals’ should be congruent with the ‘scope of relationships’. This latter refers to the continuum of ‘government’ and ‘governance’, we described in section 3 and elaborated on with the help of Martens (2006). Not surprisingly, a ‘coordinative mode of governance’ or ‘government’ works best in the case of ‘single fixed goals’, while a more governance-oriented mode (i.e. ‘governance through argumentation’ or ‘governance through competition’) works best in the case of ‘multiple composite and dependent goals’.

If we focus on the *NSL* again, at face value the programme seems to contain ‘multiple composite and dependent goals’. After all, it’s not one goal that is being favored over another. The programme has provided a way to realize both infrastructure and obtain air quality norms. However, a deeper look reveals that the programme is actually to be seen as a structure which enables the simultaneous achievement of two ‘single-fixed goals’. No integration between the two goals has taken place, nor any bargaining or consensus or compromises, which is expected to be the case in ‘multiple composite and dependent goals’.

Following De Roo (2003) and Zuidema (2011) this means that in this instance, actually, a coordinative mode of governance is more appropriate to deal with this issue.

Air quality as ‘social dilemma’

A second explanation can be found in the fact that air pollution, like many other environmental issues, has cross-border effect. This means the environmental pollution spills over into other jurisdictions than the one in which the pollution is created. According to Zuidema (2011), these cross-border environmental issues behave like social dilemmas. A social dilemma concerns situations in which individual interests not necessarily correspond with common interests (see, for example Sager, 2002; Vlek and Steg, 2007). “As a consequence, selfish behavior is prone to occur: outcomes that are desirable from a collective perspective will not be produced through the accumulation of individual choices based on individual interests” (Zuidema, 2011:52).

Considering air quality issues from this perspective, this means that affected actors could initially feel the need to take collective action to resolve these air quality issues, while during this collective action strategic behavior is likely to occur. This because also the collection of mitigating measures will have cross-border effects, which means that actors can profit from measures that are undertaken by others,

while keeping own investment limited to what is necessary. This can be seen in the case of the *NSL* at the moment. While all involved parties are still committed to the programme, investments are kept to an absolute minimum. In the beginning everybody seemed convinced that this was a joint operation. However, currently, most parties focus only on their own mitigating measures to be undertaken somewhere before 2015. The cooperative spirit that characterized the start of this programme seems to get lost, along with its momentum.

While the programme was actually geared towards a more argumentative mode of governance, a shift from ‘government’ towards ‘governance’ also provided opportunities for strategic behavior. While this may be suitable in some cases, it is hampering progress in the case of the *NSL*. As a response, shift towards the coordinative mode is likely to occur, because central governments can issue policies and regulations to prevent or guide this strategic behavior.

6. Conclusion and discussion

The aim of this paper was threefold. First, we aimed to gain more insight in the dilemma between development and protection. Secondly, we considered in what way a shift from government to governance can help to deal with this dilemma. Thirdly, we investigated the implications of this shift from government to governance.

In this paper we initially focused on the dilemma between infrastructure development and environmental protection. We found that this dilemma can be seen as a conflict between two modes of governance. Infrastructure planning can be characterized by ‘decide-announce-defend’ governance strategy, whereby initial decisions are made by the central government, announced to other stakeholders and then defended against criticism. Environmental policy and planning is focused on ‘command and control’. In this, important instruments are legislation and environmental standards. Although these modes of governance may work well within their own policy areas, conflict arises ‘on the ground’ on project level. We focused specifically on the dilemma between infrastructure realization and air quality standards, where conflict arose because new infrastructure development hampered reaching European air quality standards.

We have showed that the options to overcome this dilemma within the central government were limited. The central government realized that it could not deal with this dilemma alone. It was dependent on the help of decentralized governments and other stakeholders involved. In order to deal with the changing role and governing capacity of the central government, a shift along the continuum from government to governance is noticed in literature. This means that rather than through “direct state intervention” or ‘government’ (Hysing, 2009), the central government has to find mechanisms which “do not recourse to the authority and sanctions of government”, which is considered to be ‘governance’ (Stoker, 1998). According to Hysing (2009), the shift towards governance means that central government provides opportunities for and stimulates self-organizing and self-governing behavior to emerge within society. Martens (2006) distinguishes three ideal forms of governance within this continuum: ‘governance through coordination’, ‘governance through argumentation’ and ‘governance through competition’.

On the basis of these ideal forms we analyzed the National Cooperation Programme on Air Quality [*NSL*] to search for implication of this shift from government to governance. We found that different mechanisms play a role in self-governing behavior. The case of the *NSL* showed a programme that was based on the idea of sharing knowledge, meanings and accommodating different perspectives. Our analysis, however, showed that rather than focusing only on sharing knowledge, the shift from government to governance also provides room much more competition-oriented mechanisms as strategic and calculating behavior. Actors will weigh the investment with the costs and search for benefits without having to pay for them.

This implies that instead of moving towards either a argumentative or competitive mode of governance, as has been tried in the case of the *NSL*, where the focus only on argumentation, the shift from government towards governance implies a shift towards both the competitive and argumentative mode of governance. Furthermore, this also implies that even when initiatives are being developed based on a more argumentative mode of governance, coordination will remain important to provide for important safeguards against unwilling and unlikely strategic behavior.

In practical sense, this means that there are no clear-cut answers which dominant mode of governance is going to emerge. Rather, we should expect to end up with more ‘fuzzy’ notions of governance, where the roles and responsibilities of state, authorities and non-governmental actors are both spread and variable according to the governing activity they relate to. Instead of “expecting that a new, dominant mode of governing activity will emerge (Martens, 2006:53), governance seems more likely to become a ‘restless search’ to find the right governance practice to the circumstance encountered (Offe, 1977). In this, elements from each of the three models of governance seem likely to be used where the approach chosen is ‘fit for purpose’.

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