

**Towards Adaptive Management:
The Strategies of Policy Entrepreneurs to Direct Policy Change**

S. Brouwer
Institute for Environmental Studies
Vrije Universiteit, Amsterdam
stijn.brouwer@ivm.vu.nl

D. Huitema
Institute for Environmental Studies
Vrije Universiteit, Amsterdam
dave.huitema@ivm.vu.nl

F. Biermann
Institute for Environmental Studies
Vrije Universiteit, Amsterdam
frank.biermann@ivm.vu.nl

Paper to be presented at the 2009 Amsterdam Conference
on the Human Dimensions of Global Environmental Change
2-4 December 2009

ABSTRACT

Growing awareness of the complexities and uncertainties in water governance has put into question the existing paradigms in water management. Increasingly, more flexible, integrated and adaptive policies (“soft solutions”) are promoted. Because of the growing need to adapt, the understanding of how to effect and direct policy change will become increasingly important.

This paper focuses on the micro-level of policy-making and on individual change agents, which we describe here as “policy entrepreneurs”. Policy entrepreneurs have received increasing attention in political science during the past decade. Yet, the understanding of the actions that policy entrepreneurs can take to create policy windows and facilitate policy changes, remains limited. In this paper, the key question we seek to address is concerns the strategies that policy entrepreneurs employ in their efforts to pursue policy change.

The paper builds on both theoretical exploration and detailed empirical field research in the area of water governance in the Netherlands. Our field research is included in-depth interviews and a focus group with policy entrepreneurs. We conclude that policy entrepreneurs employ numerous strategies that can be grouped in four categories: (1) attention and support-seeking strategies, in order to demonstrate the significance of a problem and to convince a wide range of participants about their preferred policy; (2) linkage strategies, because policy entrepreneurs are mostly unable to accomplish their objectives alone and therefore link with other parties in coalitions, projects, ideas, and policy games; (3) relational management strategies, as the relational factor is critical in policy change trajectories; and finally (4) arena strategies, to influence the time and the place wherein policy entrepreneurs play their policy game.

Our study suggest that by employing the listed strategies when the “time is right”, the development of policy streams and consequently their coupling can, to some extent, be influenced and steered. In other words, we suggest that policy entrepreneurs can, to a degree, create a window of opportunity, and therefore direct policy change.

Key words: adaptive management; water management; policy entrepreneurs; strategies; policy change; window of opportunity

INTRODUCTION

The capability to adapt to and direct change is an important element of resilience in social-ecological systems (Gunderson 1999, Folke et al. 2005). Scholars of the ecosystem approach argue that, instead of the ‘traditional’ management aiming for optimal use and control of resources, the management of social-ecological systems should be adaptive (Olsson et al. 2004, Hahn et al. 2006, Plummer and Armitage 2007). The overall goal of this approach, first developed by Holling (1978), is less to maintain an optimal condition of a resource but rather to build an optimal management capacity. Therefore, it views actions and policies as experiments and stresses the necessity for ‘learning by doing’. This allows the system to react to stress, and its managers to respond to changing conditions (Walters and Holling 1990, De Jong et al. 1996, Johnson 1999).

Also in the realm of water management, growing awareness of the complexities and uncertainties has generated critical consideration about existing water management paradigms, and promoted more flexible and adaptive strategies. Among others, it has been suggested that adaptability in water management is enhanced by an emphasis on ‘soft solutions’ such as flood retention areas, and decentralized and open decision making systems (Gleick 2003, Pahl-Wostl et al. 2006). Whether or not these measures really advance adaptability may be debatable, most scholars agree, however, that the capability to direct change will be an important feature of any water management system. In this article, we aim to deepen our understanding of the way in which change can be directed, and are less concerned with the goal of the policy change processes.

Various authors (including Ostrom 1965, Kuhnert 2001, and Olsson et al. 2006) have argued that in shaping change and reorganization to achieve the flexibility needed to deal with ecosystem dynamics, the role of individual actors is essential. Since the early 1970s, also various scholars in their models to analyze and explain the nature of policy-making (see, for example Cobb and Elder 1983, Kingdon 1984, King and Roberts 1987, Weissert 1991, and Baumgartner and Jones 1993) have shown that there is room in this process for individual actors – which we term policy entrepreneurs - to help stimulate or redirect debate about policy issues. Building and synthesizing upon the work of these scholars, policy entrepreneurs have received increasing attention (see, for example Young, 1991, Schiller 1995, Schneider et al. 1995, Mintrom and Vergari 1996, Mintrom 1997, Mintrom and Vergari 1998, Mintrom 2000). Yet, there remain important gaps in

our knowledge. None of these studies systematically specifies the actions that policy entrepreneurs can take to create policy windows that would facilitate the policy changes they hope to achieve. Apart from studies by Roberts and King (1991) and Huitema and Meijerink (2009), descriptions and analyses of what policy entrepreneurs actually do have only been presented in rather general terms.

Our effort is intended first and foremost to conceptualize the actions of policy entrepreneurs. The main research question of this study is: What strategies do policy entrepreneurs employ in their efforts to pursue policy change? The present paper is organized in four sections. The first section introduces the literature on policy entrepreneurs and explains how they are distinguished from other people involved in policymaking. In the second section we elaborate on our research design and introduce the context in which the study was carried out. The third section considers the strategies of policy entrepreneurs found in the literature and our empirical study. The final section reflects on the actions of policy entrepreneurs and what they imply for understanding policy change.

POLICY ENTREPRENEURS

Initially, 'entrepreneur' basically meant 'businessman'. The French economist J.B. Say first coined the term in 1800, defining an entrepreneur as a person who *"shifts economic resources out of an area of lower and into an area of higher productivity and greater yield"* (see Drucker 1985). Since the work of Joseph Schumpeter in 1937, the term is mostly identified with innovation (Stevenson and Jarillo 1990). Gradually, scholars have expanded the use of the idea of entrepreneurship and adapted the concept from business to the public sector (deLeon 1996). Kingdon (1984: 129), one of the first scholars to apply the term 'entrepreneurs' to the public sector, defines policy entrepreneurs as *"advocates for proposals or for the prominence of ideas"*. During the past decade, policy entrepreneurs have increasingly become recognized as important political actors. Mintrom (1997, 1998, 2000) draws parallels between the role of entrepreneurs in the marketplace and entrepreneurs in policymaking. For him, as he showed that they make significant contributions to policy change, policy entrepreneurs to the policy-making process are what economic entrepreneurs are to the marketplace.

Our definition of policy entrepreneurs is, among others, grounded in the work of Kingdon (1984) and Mintrom (1997, 1998, 2000). At the most general level, we define policy entrepreneurs as people who seek to change policy. They are, much as in the case of a business entrepreneur, on the alert for opportunities; they see opportunities to connect policy proposals (solutions) to problems and participants (to political momentum). Obviously one could argue that everyone involved in the policymaking process now and then sees policy gaps, and contributes in some sense to policy change. But this does not make them policy entrepreneurs. First, unlike to those only engaged in the generation of innovative ideas (policy intellectuals) and those that mainly translate ideas into proposals (policy advocates), policy entrepreneurs are involved throughout the policy change process. Second, what distinguishes policy entrepreneurs from other participants in the policymaking process, is their above-average willingness to risk failure.

According to Kingdon (1984) policy entrepreneurs are not necessarily found in any specific location, and also Mintrom (1997) states that the exact position of policy entrepreneurs in the policy-making process is unimportant. We concur with these authors in that policy entrepreneurs are primarily identifiable by the actions they take, rather than by the positions they hold. Yet we restrict the use of the term policy entrepreneurs exclusively to those individuals who change the direction while holding bureaucratic positions. Those individuals who seek elective office to pursue their vision of change we call political entrepreneurs, and those not holding any formal position in the government public entrepreneurs.

RESEARCH DESIGN

The case study informing our analysis is the water management system in The Netherlands. While the changes in Dutch water management represent matters of considerable interests in their own right, in this study, we intend first and foremost to explain the actions of policy entrepreneurs. Therefore, the policy changes in the Dutch water management only represent the case through which to examine our actual unit of analysis; the individual policy entrepreneur. The Netherlands has been chosen as a case for its rich and diverse institutional context in local and regional water governance. Given the new needs to anticipate on (expected) climate change such as increasing river run-off and sea-level rise, in combination with the continuous subsidence

of soil, and the spatial claims of housing, industry, infrastructure, and agriculture, Dutch water projects require not only technical solutions (e.g. raising dikes), but also spatial solutions (e.g. reserving land for a floodplain). As a consequence, rather than working alone as they did in the past, Dutch water managers now often need resources and support from a wide range of organizations, policy programs, and policy domains, and therefore are required to look beyond their particular program and have to deal with greater levels of coordinated action and strategic play (Van der Brugge et al. 2005). In brief, the nature of problems facing Dutch water managers in the twenty-first century has become fundamentally more complex; both the management of the system, as well as the governing processes are in transition. This implies many policy changes in water management are needed. This makes the country a highly interesting place to study the role and actions of policy entrepreneurs.

To develop systematic ideas on these actions of policy entrepreneurs, we conducted both a theoretical as well as an empirical study. First we have skimmed various theoretical models in various fields such as political science, public administration/management and environmental management for what they have to say about agency and strategies in policy change. Based on this theoretical study a grouping of strategies was created. Next, we examined the actual actions employed by policy entrepreneurs to investigate whether this grouping is applicable. To this end, ten semi-structured in-depth interviews with five water policy entrepreneurs were conducted. The policy entrepreneurs were selected in a manner what is called a stratified sampling; in each geographically based stratum we randomly selected one water board in which a key informant was identified to determinate the most prominent policy entrepreneur within their organization. Our interviews were structured around two primary topics: (1) entrepreneurs' background, ambition, and work context, and (2) descriptions of individual projects. In the first round of interviews we found that, although the use of strategies is both crucial and prominent in the policy entrepreneur's work, it is a topic that is seldom explicitly discussed. Therefore we conducted a second round of interviews, in which we confronted the same policy entrepreneurs with a number of statements on strategies and strategic dilemmas based on the results of the first round. To explore issues in even more depth, after the individual interviews a focus group was conducted in which most of the interviewed policy entrepreneurs participated. The next section contains the combined results of the theoretical study on strategies along with the results of the interviews and focus group.

ENTREPRENEURIAL STRATEGIES

In this study we found numerous strategies - courses of action (or sequences of moves) - that policy entrepreneurs employ in their efforts to pursue policy change. These strategies can be grouped in four categories: (1) attention and support-seeking strategies, in order to demonstrate the significance of a problem and to convince a wide range of participants about their preferred policy; (2) linkage strategies, because policy entrepreneurs are mostly unable to accomplish their objectives alone and thus link with other parties in coalitions, projects, ideas, and policy games; (3) relational management strategies, to manage the relational factor in policy change trajectories; and finally (4) arena strategies, to influence the time and the place wherein policy entrepreneurs play their policy game.

1. Attention and support-seeking strategies

The ultimate goal of a policy entrepreneur is to achieve policy change. Accordingly, we concur with Huitema and Meijerink (2009) that an alternative idea or approach is required. In accordance with Kingdon (1984), Koppenjan (1993), and Mintrom (2000) we are of the opinion that most of the time people reformulate (old) ideas or combine them with others, and that ideas for policy change come from a plethora of different sources. Hence, unlike Huitema and Meijerink (2009), we do not consider the development of ideas as a strategy of policy entrepreneurs. A key characteristic of policy entrepreneurs is, as mentioned above, their alertness for opportunities to connect new ideas and to problems and participants (to political momentum). Therefore, we are more interested in the process of what happens after a policy entrepreneur sees an opportunity in a particular proposal. An important task of the policy entrepreneur is to sell, or to convince a wide range of different individuals, groups and organizations of their preferred idea. The whole range of strategies that policy entrepreneurs employ to sell their ideas, we call attention and support-seeking strategies.

To understand the selection processes of which new ideas or policy proposals will be considered, researchers have defined several criteria (see, for example Koppenjan 1993, and Mintrom 2000). Important strategies to draw attention to new ideas are the use of small-scale pilot projects (Huitema and Meijerink 2009), indicators and expert testimony (Kingdon 1984). However, to

recall Cohen et al. (1976) and Kingdon (1984), perhaps the most important criteria for a new idea to be considered, is the availability of a problem. In this regard Mintrom (2000) states that people with a new idea, will always try to find problems to which they can attach their new idea as a solutions. This strategy we refer to as correlating. So part of the efforts to gain attention and support for a new idea implies demonstrating the magnitude of a problem to which they want to link their solution. To this end, policy entrepreneurs use, among other strategies, indicators. Also the highlighting focusing events, like crises or disasters, is an important strategy to demonstrate the importance of a problem (Kingdon 1984, Birkland 1988, Westley 2002, Koppenjan and Klijn 2004, and Ingram and Fraser 2006).

Depending on how problems get defined, the direction in which possible solutions are sought is decided. In addition, depending on the definition, some actors are involved while others are not, some are helped and others hurt (Kingdon 1984, Koppenjan 1993, Stone 1997, and Koppenjan and Klijn 2004). Also in demonstrating the importance and meaning of crises, or to display the success of a pilot project, the specific wording of policy entrepreneurs is of big importance. Therefore, rhetoric persuasion, and more specific framing, is a key element in all attention and support-seeking strategies. By using rhetorical persuasion, policy entrepreneurs do not try to get preferred policy innovations to be adopted by changing the alternatives, but try to change preferences through argumentation within the existing dimensions of current policy discussions. Framing implies that policy entrepreneurs adapt their way of speaking and decide which aspects of the problem or the solution they want to emphasize or to downplay depending on the positions and preoccupations of different participants. Several scholars (including Birkland 1988, Dutton and Ashford 1993, Stone 1997, and Fischhendler and Zilberman 2005) have shown that successful framing can greatly improve the likelihood of an innovation being introduced.

In our study we found indeed that to demonstrate the magnitude of a problem, policy entrepreneurs widely use indicators and expert testimony. As one policy entrepreneur remarked: *“High-quality reports with high-quality appendices are needed, no blah blah stories (...) you organize an information evening (...) and at a certain point they will start believing you (...)*. In addition to expert testimony to exhibit the significance of a problem, policy entrepreneurs draw attention to focusing events like crises or disasters. Story-telling and providing actual working examples are considered important means to draw attention to the preferred solutions. In

addition, we found that policy entrepreneurs work hard to present their ideas as solutions. Yet, all policy entrepreneurs interviewed argued that it is the interpretation of the crisis or data that really can transform conditions into problems. More broadly, policy entrepreneurs consider rhetorical persuasion to be crucial in their efforts to draw attention and gain support, and consequently an important key to open up new policy opportunities. Our interviews were rich with examples showing that framing in specific is a widely used strategy. For example, a policy entrepreneur explained: *“When I aim to acquire a European subsidy, I emphasize the social, economic, and ecological problems in the area. But when I try to acquire a provincial subsidy for the very same project, I tell them how the project complements with their program”*. In line with Wondolleck et al. (2000) the policy entrepreneurs interviewed suggest that it makes sense to frame a problem such that shared problem ownership is promoted. As one policy entrepreneur put it: *“I try to explain that our wishes are in effect similar to the local authority’s wishes, or in any case, that they are similar to what should be their wish”*.

2. Linking Strategies

In theory, policy entrepreneurs pursuing policy change, have the choice to realize their plans and ideas alone or in collaboration. In practice, however, policy entrepreneurs are mostly unable to accomplish their objectives alone. Often, various individuals, groups, and organizations are involved in a specific policy issue and/or the necessary resources to accomplish the change are divided over different actors. For this reason, researchers have noted that policy entrepreneurs frequently seek collaboration and link individuals and groups in a coalition. Besides coalition building, policy entrepreneurs employ three other linking strategies: selective activation and excluding, issue-linkage, and game linking.

Coalition building

Policy entrepreneurs frequently experience dependency on the actions or resources of others because the scale (and levels) at which problems are experienced regularly do not correspond to the scale of the decision-making bodies. In addition, necessary resources, such as physical resources, juridical resources, money, knowledge, and support are often divided over different

individuals, groups, and organizations involved in the specific policy (Booher and Innes 2000, Koppenjan and Klijn 2004, Lebel et al. 2005, Kuindersma and Kolkman 2005). In sum, it appears that in practice policy change can hardly be realized individually. Accordingly, policy entrepreneurs frequently collaborate with others. By implication this drives the building of coalitions. Since the joining of forces together generally entails sensitive issues, such as differences of policy objectives and power asymmetries among actors, coalition building is often a delicate task. The degree to which collaboration is needed is based on various factors and will differ from situation to situation (Huitema and Meijerink 2009). In short, their choice is not so much *whether* a coalition needs to be built, but rather *what kind* of coalition they build (Dutton and Ashford 1993, Mintrom 1997, Mintrom 2000).

In our study we found that policy entrepreneurs in Dutch water management indeed feel that they are mostly unable to accomplish their objectives alone. For this reason they frequently seek to maintain or build coalitions: *“Even for our own water retention projects it is impossible to say ‘we can plan, organize and implement our ideas ourselves’, that’s not the way it works”*. The most frequently, but not exclusively, noted motivation for coalition building was the acquisition of money and support: *“Next year we are going to implement a fish stock policy so we involved the angler groups. They do not have any money, but they have knowledge”*.

Selective activation and excluding

Inextricably bound up with coalition building is the strategy of selective activation and excluding. As the composition of a coalition will make certain outcomes more probably than others, policy entrepreneurs are very liable to apply a selective activation strategy, that is *“assess which actors are essential at given moments in a policy process, whether and how to involve them”* (Pahl-Wostl et al. 2006: 26). This can also imply exclusion, that is, deliberately leaving out actors (in particular stages) of a policy making process. Policy scientists are ambiguous regarding the ideal size of the set of actors. Some argue that policy-making processes can be improved by activating more participants as they bring in new solutions and resources (see, for example Fisher et al. 1983, Teisman 1990, Soeterbroek 1998) whereas Mintzberg et al. (1996),

for instance, state that more participants implies inevitably more complexity and more complicated negotiations.

The present study demonstrates that entrepreneurs not only think deep about which parties when to involve, but also on the total number of participants in a coalition. Yet, all entrepreneurs noted to face the dilemma of small versus broad coalitions every now and then. They feel that no general rules can be given regarding the ideal size of a coalition. As one policy entrepreneur interviewed for this study remarked: *“At times it is better to involve that specific party, other times its not. It’s a matter of tact”*. Yet, generally entrepreneurs noted that they feel it is not strategic to exclude or deactivate parties: *“The exclusion of parties is never a smart idea. You will always meet them again and this can frustrate your interest tremendously”*.

Issue-linkage

Whether or not excellent rhetoric persuaders, policy entrepreneurs must also be prepared to adjust their preferred problem definitions and solutions to the interests and expectations of other participants (Mintrom 2000). An important strategy to make these adjustments is known as issue-linkage. This strategy entails the linking of two or more issues, both the addition of dimensions to a problem, as well as the combination of solutions with other solutions, for substantive and/or strategic reasons (Mintrom 2000, Huitema and Meijerink 2007, Meijerink 2008). Issue-linkage may contribute to different approaches, new relations, richer debates, and more successful outcomes (Fisher et al. 1983, Teisman 1990, Soeterbroek 1998, De Bruijn and Heuvelhof 2000). Besides, as different individuals, groups, and/or organizations involved in policy formation become co-responsible for the decisions made, issue-linkage might lead to more social and political support for a certain policy proposal. At the same time, issue-linkage may be a mechanism to realign or break existing coalitions (Fischhendler and Zilberman 2005). Yet, since participants are most likely to defend their own interests, issue-linkage by no means always pays off, and can cause delays, stagnation, or even conflicts (Fischhendler 2004, Koppenjan and Klijn 2004, Meijerink 2008). Therefore, in some cases the opposite strategy, the reduction of scope, or issue-delinking, is more realistic.

In their efforts to realize their preferred policy change, all policy entrepreneurs repeatedly take different problem perceptions and interests into account aiming to develop and select a solution that is satisfying for all relevant participants. All interviewed entrepreneurs felt that issue-linkage, if launched at the right moment, increases the likelihood of a better solution: *“If you realize with a number of parties multiple goals on the same unit of land/plot (...), for the same, or perhaps less money, you can have a better plan”*. As they experience besides the advantages of issue linkage also the dangers in terms of complexity and stagnation, they often stated to face a ‘single-multi issue’ dilemma. Yet, they all consider issue-linkage an important key for success. As one policy entrepreneur remarked: *“If you only try to reach your own goal... at a certain point you run up against so many objections from other parties that you can not make progress anymore”*.

Game linking

As the games of problem solving and policy change are not played in a vacuum but in an arena with many ongoing policy games with partly overlapping issues and participants, the policy entrepreneur’s efforts to change policy are influenced by other games, taking place at the same time or even in the future. Although this phenomenon can complicate their efforts of realizing policy change, policy entrepreneurs can also link games strategically (Axelrod and Keohane 1985, Putnam 1988, and Van Eeten et al. 2000). Game linking entails the linking of two or more parallel or future policy games, for strategic reasons. The use of the game linking strategy explains why parties are sometimes prepared to take loss; a loss in one game can be compensated by a gain in another (De Bruijn and Heuvelhof 2000, Van Eeten et al. 2000, Koppenjan en Klijn 2004).

In our study we found that policy entrepreneurs in Dutch water management frequently employ the game-linking strategy. In coherence with the above mentioned authors, a policy entrepreneur explained the choice to support a certain non-essential plan: *“For [us] this plan is only negative, there is zero advantage (...) Still, we support it as we hope that they will support us with our project in the future”*. This excerpt shows us that policy entrepreneurs indeed, note that strategic moves at one game-table might facilitate or obstruct coalitions at the second table. Yet, policy

entrepreneurs frequently noted facing the dilemma between holding on to a certain position versus giving it away with the aim to receive better rewards (compensation) in the future. Given that the same participants frequently need each other in parallel or future policy games, policy entrepreneurs state that the rules of the game are often based on the notion of reciprocity and played in such a manner that relations are not deteriorated.

3. Relational Management Strategies

In policy games, policy entrepreneurs inevitable don't deal with abstract representatives from 'the other side' but with human beings with emotions, values, and ideas. Consequently, the policy game always has two outcomes: one substantive, and relational. The human aspect can help enormously when relations are characterized by mutual trust, respect or even friendship. At the same time, when people feel angry, offended, annoyed, hostile, and/or betrayed, it can be devastating and negotiations will be very difficult (Fisher et al. 1983, Koppenjan and Klijn 2004). To develop or maintain good relations, an actor will have to display cooperative behavior. In the policy literature, the importance of this relational aspect is particularly stressed in the work by Fisher et al. (1983). Also other research has demonstrated that it makes sense for the policy entrepreneur to negotiate such that future conditions are fostered and not deteriorated (Mintrom 2000, Koppenjan and Klijn 2004). In building and maintain good relations, many scholars have maintained that developing trust is very important to the pursuit of the policy entrepreneur's goals. Relationships of trust can be built through efforts of networking and repeated interactions of reciprocal, preferential, and mutually supportive actions (Schneider et al. 1995, Mintrom 2000, Kuindersma and Kolkman 2005).

This study uncovered that policy entrepreneurs make lots of efforts to influence the relational aspect. More than any other strategy they all emphasized the importance of this strategy in their efforts to achieve policy change. They all stressed the importance of good relations characterized by respect and mutual trust. Policy entrepreneurs stated to focus on both the solution and the relation, and therefore often to face the dilemma whether to reach their goal as fast as possible versus the relationship: *"Reaching your goal as fast as possible can be slowed down terribly by poor relationships"*; *"When you reach your goal at the expense of your relation, you will have to*

be very sure that you won't need that relation in the future. If you will need that relation in the future, you are certainly lost". Because most negotiations take place within existing relations, most interviewed policy entrepreneurs note that they always try to create or maintain good relations for the pursuit of their goals. In this regard, they state that it is important to display cooperative behavior and perhaps even more important to develop relationships of trust. At the same time they confirmed how difficult and time-consuming it is to build these relationships of trust, and how easy it is to lose trust: *"If at a certain point in time you can show that you keep your promise, you become a serious partner (...) It is devastating if you make an agreement and can't honor it" (...) "It only has to happen once and you have absolute distrust"*.

Networking

An important aspect within relational management is both formal and informal talking with, and listening to the broad set of actors engaged in a certain domain, a strategy we refer to as networking (Kingdon 1984, Mintrom 2000, Williams 2002). Research indicates that networks differ in nature; some networks can be long lasting involving few interdependent actors frequently interacting, whereas others can be loosely integrated and relatively ad hoc. But by definition networks are always broader compared to a coalition (Rhodes and Marsh 1990, Stevenson and Jarillo 1990, Bruijn and Heuvelhof 2000). Networks matter because they help the policy entrepreneurs discover opportunities to build coalitions and gather reliable information in a relatively easy and efficient manner. Moreover, networking enables the entrepreneur to understand the preferences and worries of the other participants. This knowledge helps them to understand how to determine which arguments will persuade the others to gain support for their policy ideas (Kingdon 1984, Schneider et al. 1995, Mintrom and Vergari 1998, Mintrom 2000, Williams 2002).

This study indeed found that policy entrepreneurs generally spend a lot of time networking. As one policy entrepreneur put it: *"I try to attend any meeting (...) whether it is from the farmers or nature conservationists (...) I am a member of all relevant organizations. Moreover, I keep up with what happens in the municipal councils, also on my evenings off"*. The entrepreneurs report that networks matter because they help them discover new ideas and opportunities. Networking

enables them to understand the preferences, plans, worries and ‘world views’ of the other participants. This knowledge helps them to discover opportunities for coalition building, issue-linkage, and game linkage. In addition, they state that networking helps them understand how to frame issues as well as to determine which arguments will persuade the others to support their policy ideas. Entrepreneurs emphasized that relational management is by no means solely an external concern. Indeed, the present study revealed that policy entrepreneurs perceive networking with their internal organization as least as important as networking with external partners. They feel the game “back home” (support of the internal political board and bureaucratic organization) is as crucial as the external game. As one policy entrepreneur remarked: *“If you negotiate with partners about a project, perhaps the negotiation process back home is even more important”*. This finding is consistent with that of Soeterbroek (1998) and Westley (2002).

4. Arena Strategies

Except for the attention and support-seeking strategies, linking strategies, and the relational management strategies, policy entrepreneurs play strategically with the time and place wherein they play the policy game. In other words, they can strategically play with the policy arena, i.e. the loci in which their policy game is placed and wherein problem definitions and policy ideas are turned into policy decisions (Timmermans and Bleiklie 1999). There are two different arena strategies, those that focus on time, and those that focus on place.

Timing

In several manners, time plays an important role in policy making processes. Time is not only the outcome of a process; it has an independent influence on the process as well. Strategies to influence time are different in their magnitude. In the first place, policy entrepreneurs should be alert to the right moments. Kingdon (1984) refers to this chance for action as the opening of the policy window. Due to the short opening moments of windows, it is crucial for the policy entrepreneur to recognize and to exploit those moments appropriately. Besides the significance of time in terms of alertness, the order and timing of the above mentioned strategies can have a

profound influence on the degree of support and resistance. For example, as the sense of urgency and willingness to change perceptions will not continue indefinitely, focusing events can only create opportunities when the timing is right. Also the moment in which ideas are presented and participants get involved is of big importance (Soeterbroek 1998, Bruijn and Heuvelhof 2000). Therefore the alert policy entrepreneur must be able to deal with surprises (Kingdon 1984, Birkland 1988, Westley 2002, Koppenjan and Klijn 2004).

Koppenjan (1993) found that anticipating the present or absent policy windows, policy entrepreneurs can try to speed up or to speed down the policy making processes. This finding is consistent with that of Soeterbroek (1998) who found that strategies of speeding up or temporizing can result in better negotiation outcomes. Policy entrepreneurs can temporize by requesting a time-out, or by asking for addition research. Deadlines on the other hand can be used to speed up the process (Kingdon 1984, De Bruijn and Heuvelhof 2000). Koppenjan and Klijn (2004), however, noted that the effects of deadlines are not straightforward. On the one hand, they might be useful as protracted processes can become vulnerable to changes in participation, organizational, and technique. On the other hand, when parties do not like the direction of the problem solution, deadlines might be counter-productive as the negotiation position of the deadline initiator may weaken (Bruijn and Heuvelhof 2000, Koppenjan and Klijn 2004).

The policy entrepreneurs interviewed repeatedly underlined the importance of timing in relation to all attention and support-seeking-, linking-, and relational management strategies. For example, they feel that it is better to involve participants at an early stage to forestall resistance. At the same time, they indicated that engaging too early is also counterproductive. *“It works adverse when you involve people too early. If you can only say ‘there is something we want, but we do not know what and when’, you only foster fantasies, ghosts, and stirs up trouble”*. Besides, policy entrepreneurs play for time by slowing down, requesting a time-out, or by asking for addition research. Deadlines on the other hand are used to accelerate the process. The interviews revealed that policy entrepreneurs are aware of these disadvantages, and play strategic with deadlines initiated by other parties. One of them explained his reaction on a deadline set by the other party: *“Since I am not in a hurry, setting a deadline would be really stupid. Whereas the*

other party feels the pressure, we won't negotiate until very close to the deadline (...), this makes our position much stronger".

Venue shopping

The second arena strategy is a strategy associated with the choice between the various possible places where one can try and effect change. This strategy is known as venue shopping. By employing this strategy, policy entrepreneurs *"try to alter the roster of participants who are involved in the issue by seeking out the most favorable venue for the consideration of their issues"* (Baumgartner and Jones 1991: 1045). At some points policy entrepreneurs might prefer to play the game in accordance with regular and established forms, while at other moments, or parallel, they might prefer a venue without the usual or prescribed form. Possible venues include not only different levels of government, but also regulatory agencies, and legislative bodies (McCown 2004). Especially in surroundings providing little or no support for policy change, it is believed that venue shopping can improve the policy entrepreneurs' chances for success and therefore can lead to dramatic reversals in policy outcomes (Baumgartner and Jones 1991, Mintrom 2000).

Policy entrepreneurs note that venue shopping can result in a new set of participants involved in a particular policy issue and therefore has the potential to disarm opponents or strengthen the position of the supporters of a particular policy change. In other words, they feel that by employing the venue-shopping strategy, they can bypass those who resist to the change proposed. Especially in terms of subsidy acquisitions, policy entrepreneurs feel that venue shopping can be fruitful, and therefore enhance their chances policy change. Most of the time, however, policy entrepreneurs experience little freedom in the choice of possible places where to effect change. Therefore it seems policy entrepreneurs not often employ the venue shopping strategy.

DISCUSSION & CONCLUSION

By focusing on the micro-level of policy-making, we have found that in their efforts to direct policy change, policy entrepreneurs employ numerous strategies. These strategies can be grouped in four categories: (1) attention and support-seeking strategies; (2) linkage strategies; (3) relational management strategies; and (4) arena strategies. In the first place we have demonstrated that policy entrepreneurs employ various attention and support-seeking strategies. By the use of small-scale pilot projects, indicators, and the highlighting of focusing events, policy entrepreneurs try to convince a wide range of participants of their preferred idea. In addition, we have found that an important strategy is correlating, that is, presenting ideas as a solutions. Another key finding regarding attention and support-seeking strategies is the importance of rhetoric persuasion generally, and framing in particular.

Besides the attention and support-seeking strategies, this study has demonstrated that policy entrepreneurs employ various linking strategies. As they are mostly unable to accomplish their objectives alone, they frequently seek collaboration and build coalitions. In connection with this, we have found that policy entrepreneurs employ the strategy of selective activation and exclusion. However, as excluding is considered to be harmful for relations, we found that policy entrepreneurs generally attempt to avoid explicit excluding. Instead, a very popular linking strategy is the linking of two or more issues and, to a lesser extent, also the linking of policy games.

We have found that another crucial factor in policy change trajectories is the personal aspect. This explains why policy entrepreneurs make many efforts to employ various relational management strategies, including networking and trust building. This is not only valid for external partners, but also for actors within their internal organization. In fact, this study has shown that policy entrepreneurs do not only convince, persuade, network, and build relationships of trust with external partners, but do so also with their counterparts “back home”.

Finally, we have concluded that policy entrepreneurs employ so-called arena strategies to influence the time and the venue in which they play their policy game. The study has demonstrated that time in particular time plays a critical role in policy making processes. Besides the importance for policy entrepreneurs to be alert and to anticipate policy windows, the timing

of their strategies can also have a profound influence on the degree of support or resistance. Table 1 presents an overview of the most important entrepreneurial strategies.

Attention and Support-seeking Strategies	Linking Strategies	Relational Management Strategies	Arena Strategies
<ul style="list-style-type: none"> • Pilot projects • Indicators • Focusing events • Correlating • Rhetoric persuasion 	<ul style="list-style-type: none"> • Coalition building • Selective activation and excluding • Issue-linkage • Game linking 	<ul style="list-style-type: none"> • Developing trust • Networking 	<ul style="list-style-type: none"> • Timing • Venue shopping

Table 1: Strategies of policy entrepreneurs

Another finding is that, in their efforts to pursue policy change, policy entrepreneurs always employ a combination of attention and support-seeking strategies, linking strategies, relational management strategies, and arena strategies. When we use the conceptualization of Westley (2002) and envision these strategies as balls, we can conclude that in order to be successful policy entrepreneurs must constantly juggle all balls, and cannot neglect or drop a single one. Upon closer examination, we have found that policy entrepreneurs in their juggling efforts constantly focus on three strategic focal points. In the first place, they employ strategies aimed at drawing attention to new problems and/or changing existing problem definitions. Secondly, entrepreneurs use strategies, such as issue-linkage, aimed at influencing solutions and/or introducing new solutions. Thirdly, entrepreneurs employ strategies, such as coalition building, selective activation and excluding, venue-shopping, and a whole range of relational management strategies aimed at maintaining or changing the constitution of, or relation with, participants. Following the logical structure of the stream models by Cohen et al. (1972) and Kingdon (1984), we can conceptualize this as three developments or streams that policy entrepreneurs pay close attention to: the problem stream, the solution stream, and the participation stream.

At the same time, this study has demonstrated that the participants' decisions whether or not to participate in a particular policy issue depend importantly on the problem definition and the proposed solution. We have also found that the problem definition itself, as well as the policy

proposition, is affected by the involvement of participants. In addition, alterations in the proposed solutions can affect the existing problem definitions, and *vice versa*.

In sum, these results suggest that, in contrast to Kingdon's argument, the streams affect each other as they develop.¹ Whereas Kingdon (1984) assumes that the developing and coupling of the streams develops rather unpredictably and happens only when the "time is right", our study suggests that by employing the listed strategies, the development of the streams and consequently their coupling can, to some extent, also be influenced and steered.

Given the range of strategies that policy entrepreneurs employ, one may ask whether the conclusion would be justified that this steering and coupling is straightforward and unproblematic. However, the strategic dilemmas that this study has uncovered *alone* suggest this is certainly not the case. Yet, as we feel that the role of policy entrepreneurs in directing change to make significant contributions to adaptability will become even more important in the future, more research is required to understand how policy entrepreneurs can help to redirect policy. For example, we need to deepen our understanding of the successfulness and appropriateness of the distinct entrepreneurial strategies. Furthermore, we need to examine *when* strategies are combined with *what* effect. Future research on policy entrepreneurship should also include comparisons between different types of entrepreneurs. Finally, future research is needed on how policy entrepreneurship can be facilitated and stimulated within governmental organizations.

Acknowledgement: We are grateful to Michael Mintrom and Jeroen Warner for inspiration and constructive discussions. The Dutch programme Living with Water funded the study.

¹ Please note that Kingdon (1984) underlines the existence of three somewhat different streams: i.e., the problem stream, the policy stream, and the political stream.

LITERATURE CITED

- Axelrod, R., and R.O. Keohane.** 1985. Achieving Cooperation under Anarchy: Strategies and Institutions. *World Politics* **38** (1): 226-254.
- Baumgartner, F.R., and B.D. Jones.** 1991. Agenda Dynamics and Policy Subsystems. *The Journal of Politics* **53** (4): 1044-1074.
- Baumgartner, F.R. and B.D. Jones.** 1993. *Agendas and instability in American politics.* University of Chicago Press, Chicago.
- Birkland, T.A.** 1988. Focusing Events, Mobilization, and Agenda Setting. *Journal Public Policy* **18** (1): 53-74.
- Booher, D.E., and J.E. Innes.** 2000. Network Power in Collaborative Planning. *Journal of Planning Education and Research* **21** (3): 221-236.
- Cobb, R., and C.W. Elder.** 1983. *Participation in American politics.* Allyn and Bacon, Boston, Mass.
- Cohen, M.D., J.G. March, and J.P. Olsen.** 1972. A Garbage Can Model of Organizational Choice. *Administrative Science Quarterly* **17** (1): 1-25.
- De Bruijn, H., E.. Heuvelhof.** 2000. *Networks and decision making.* LEMMA, Utrecht.
- deLeon L.** 1996. Ethics and Entrepreneurship. *Policy Studies Journal* **24**: 495-510.
- De Jong, J., J.T. van. Buuren, and J.P.A. Luiten.** 1996. Systematic approaches in water management: Aquatic outlook and decision support systems combining monitoring, research, policy analysis and information technology. *Water Science and Technology* **34** (12): 9-16.
- Drucker, P.D.** 1985. *Innovation and Entrepreneurship.* HarperCollins, New York.
- Dutton, J.E., and S.J. Ashford.** 1993. Selling Issues to Top Management. *The Academy of Management Review* **18** (3): 397-428.
- Fischhendler, I.** 2004. Legal and institutional adaptation to climate uncertainty: a study of international rivers. *Water Policy* **6**: 281-302.
- Fischhendler, I., and D. Zilberman.** 2005. Packaging policies to reform the water sector: The case of the Central Valley Project Improvement Act. *Water Resources Research* **41**: 1-14.
- Fisher, R., W. Ury, B. Patton, and H. Kuipers.** 1983. *Excellent onderhandelen : een praktische gids voor het best mogelijke resultaat in iedere onderhandeling.* Veen, Utrecht.
- Folke, C., T. Hahn, P. Olsson, and J. Norberg.** 2005. Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources* **30** (1): 441-473.

- Gleick, P.H.** 2003. Global Freshwater Resources: Soft-Path Solutions for the 21st Century. *Science* **302** (5650): 1524-1528.
- Gunderson, L.H.** 1999. Resilience, flexibility and adaptive management: Antidotes for spurious certitude? *Conservation Ecology* **3** (1): 7. Available online at: <http://www.consecol.org/vol3/iss1/art7/>
- Hahn, T., P. Olsson, C. Folke, and K. Johansson.** 2006. Trust-building, Knowledge Generation and Organizational Innovations: The Role of a Bridging Organization for Adaptive Comanagement of a Wetland Landscape around Kristianstad, Sweden. *Human Ecology* **34** (4): 573-592.
- Holling, C.S.** 1978. *Adaptive environmental assessment and management*. New York: John Wiley & Sons.
- Huitema, D., and S. Meijerink.** 2007. *Understanding and managing water transitions: a policy science perspective*. Paper presented to the Amsterdam Conference on Earth Systems Governance, May 24-26 2007, Amsterdam.
- Huitema, D. and S. Meijerink, editors.** 2009, forthcoming. *Water policy entrepreneurs. A research companion to water transitions around the globe*. Edward Elgar, Cheltenham.
- Ingram, H., and L. Fraser.** 2006. Path Dependency and Adroit Innovation: The Case of California Water. Pages: 78-109. In: Repetto, R. eds. *Punctuated-Equilibrium and the Dynamics of U.S. Environmental Policy*. Yale University Press, New Haven and London.
- Johnson, B.L.** 1999. Introduction to the Special Feature: Adaptive Management - Scientifically Sound, Socially Challenged? *Ecology and Society* **3** (1), [online] URL: <http://www.ecologyandsociety.org/vol3/iss1/art10/>
- King, P.J., and N.C.R. Robers.** 1987. Policy Entrepreneurs: Catalysts for policy innovation. *Journal of State Government* **60**: 172-179.
- Kingdon, J.W.** 1984. *Agendas, alternatives, and public policies*. HarperCollins, New York.
- Koffijberg, J.J.** 2005. *Getijden van beleid: omslagpunten in de volkshuisvesting: over de rol van hiërarchie en netwerken bij grote veranderingen*. DUP Science: Delft.
- Koppenjan, J.** 1993. *Management van de beleidsvorming: Een studie naar de totstandkoming van beleid op het terrein van het binnenlands bestuur*. VUGA: 's-Gravenhage.
- Koppenjan, J., and E.H. Klijn.** 2004. *Managing Uncertainties in Networks: A network approach to problem solving and decision making*. Routledge, London.
- Kuhnert, S.** 2001. An Evolutionary Theory of Collective Action: Schumpeterian Entrepreneurship for the Common Good. *Constitutional Political Economy* **12** (1): 13-29.
- Kuindersma, W., and G. Kolkman.** 2005. *Vertrouwen en samenwerking in het experiment Gaasterland. Een procesevaluatie over tien jaar milieuontwikkeling(en)*. Alterra, Wageningen.

- Lebel, L., P. Garden, and M. Imamura.** 2005. The Politics of Scale, Position, and Place in the Governance of Water Resources in the Mekong Region. *Ecology and Society* **10** (2): 18.
- McCown, T.L.** 2004. *Policy entrepreneurs and policy change examining the linkages between TANF, domestic violence and the FVO*. West Virginia University Libraries, Morgantown, W.V.
- Meijerink, S.** 2008. Explaining continuity and change in international policies: Issue linkage, venue change, and learning on policies for the river Scheldt estuary 1967-2005. *Environment and Planning* **40**: 848-866.
- Mintrom, M.** 1997. Policy Entrepreneurs and the Diffusion of Innovation. *American Journal of Political Science* **41** (3): 738-770.
- Mintrom, M.** 2000. *Policy entrepreneurs and school choice*. Georgetown University Press, Washington, D.C.
- Mintrom, M., and S. Vergari.** 1996. Advocacy Coalitions, Policy Entrepreneurs, and Policy Change. *Policy Studies Journal* **24** (3): 420-434.
- Mintrom, M., and S. Vergari.** 1998. Policy Networks and Innovation Diffusion: The Case of State Education Reforms. *The Journal of Politics* **60** (1): 126-148.
- Mintzberg H, Jorgensen J, Dougherty D, Westley F.** 1996. Some Surprising Things About Collaboration: Knowing How People Connect Makes It Work Better. *Organizational Dynamics* **25**: 60-71.
- Olsson, P., C. Folke, and F. Berkes.** 2004. Adaptive Co-management for Building Resilience in Social-Ecological Systems. *Environmental Management* **34** (1): 75-90.
- Olsson, P., L.H. Gunderson, S.R. Carpenter, P. Ryan, L. Lebel, C. Folke, and C.S. Holling.** 2006. Shooting the Rapids: Navigating Transitions to Adaptive Governance of Social-Ecological Systems. *Ecology and Society* **11** (1): 18. Available online at: <http://www.ecologyandsociety.org/vol11/iss1/art18/>.
- Ostrom, E.** 1965. *Public Entrepreneurship: A Case Study in Ground Water Basin Management*. Dissertation. Department of Political Science, University of California, Los Angeles, Ca.
- Pahl-Wostl, C., G. Berkamp, and K. Cross.** 2006. Adaptive Management of Upland Rivers Facing Global Change: General Insights and Specific Considerations for the Rhone Basin. Available online at: http://rosenberg.ucanr.org/documents/Rosenberg_Paper_Pahl-Wostlcanada.pdf.
- Plummer, R., and D.R. Armitage.** 2007. Charting the New Territory of Adaptive Co-management: A Delphi Study. *Ecology and Society* **12** (2): 10.
- Putnam, R.D.** 1988. Diplomacy and Domestic Politics: The Logic of Two-Level Games. *International Organization* **42** (3): 427-460.

- Roberts, N.C., and P.J. King.** 1991. Policy Entrepreneurs: Their Activity Structure and Function in the Policy Process. *Journal of Public Administration Research and Theory* **2**: 147-175.
- Schiller, W.** 1995. Senators as Policy Entrepreneurs: Using Bill Sponsorship to Shape Legislative Agendas. *American Political Science Review* **39**: 186-203.
- Schneider, M., P.E. Teske, and M. Mintrom.** 1995. *Public entrepreneurs: agents for change in American government*. Princeton University Press, Princeton, N.J.
- Soeterbroek, F.** 1998. *Onderhandelen, de kunst van het schakelen en verbinden*. De Beuk, Hippolytushoef.
- Stevenson H.H., and J.C. Jarillo.** 1990. A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal* **11**: 17-27.
- Stone, D.** 1997. *The Art of Political Decision Making*. W.W. Norton, New York.
- Teisman, G.R.** 1990. Projectontwikkeling als 'konzertierte Aktion'. Pages 207-208. In: Hufen JAM, Ringeling AB, eds. *Beleidsnetwerken: overheids-, semi-overheids- en particuliere organisaties in wisselwerking*. VUGA, Den Haag.
- Timmermans, A. and Bleiklie.** 1999. *Institutional Conditions for Policy Design: Types of Arenas and Rules of the Game*. ECPR Joint Sessions of Workshops Mannheim.
- Van der Brugge, R., J. Rotmans and D. Loorbach.** 2005. The transition in Dutch water management. *Regional Environmental Change* **5** (4): 164-176.
- Van Eeten, M., H. de Bruijn, H. v.d.Voort, and E. van Bueren.** 2000. *Koppelen met water: samenwerking en samenhang in het stedelijk waterbeheer*. Eburon, Delft.
- Walters, C. and C.S. Holling.** 1990. Large-scale management experiments and learning by doing. *Ecology* **71** (6): 2060-2068.
- Weissert, C.S.** 1991. Policy entrepreneurs, policy opportunists, and legislative effectiveness. *American Political Quarterly* **19**: 262-274.
- Westley, F.** 2002. The devil in the dynamics: adaptive management on the front lines. In: Gunderson LH, and Holling C.S., eds. *Panarchy: Understanding transformations in human and natural systems*, Island Press, Washington, D.C. Pages 333-360.
- Williams, P.** 2002. The competent boundary spanner. *Public Administration* **80** (1): 103-124.
- Wondolleck, J.M., and S.L. Yaffee.** 2000. *Making collaboration work: lessons from innovation in natural resource management*. Island Press, Washington D.C.
- Young, O.R.** 1991. Political Leadership and Regime Formation: On the Development of Institutions in International Society. *International Organization* **45** (3): 281-308.