

3 Theories on explaining policy and legal change

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3.1 Introduction

The explanatory framework draws heavily on literature from the field of policy analysis (e.g. Sabatier and Weible 2007; True et al. 2007; Zahariadis 2007) but also uses complementary insights that can be derived from the field of Science and Technology Studies (STS) (e.g. Hughes 1987) as well as from the Multi-Level-Perspective as it has been developed by Dutch scholars analysing socio-technical transitions (e.g.

2002). This appendix provides a general overview of the main theories on which the explanatory framework draws. Theories discussed include the Advocacy Coalitions Framework (Sabatier and Weible 2007), the Multiple Streams Approach (Zahariadis 2007), Punctuated equilibrium theory (True et al. 2007), the Multi-Level Perspective from transitions theory (Geels 2002) as well as some other relevant theories. This discussion results in an overview of potentially relevant factors for explaining policy change. As we indicated in the main text, the following issues should be carefully considered when setting up explanations:

1. **The explanandum** (the dependent variable) (Capano and Howlett 2009; Dupuis and Biesbroek 2013; Howlett and Cashore 2009). The latter is sometimes conceptualised as change in *output* and sometimes as a change in *processes*. From Valman (2012) we can derive different models of change. She distinguishes between displacement, layering, drift and conversion. Displacement happens “when new modes of practice or new rules replace the existing previously taken for granted forms, settings or practices.” (p2) “layering means that new rules are introduced and put alongside existing ones”, “drift takes place when the consequences of existing rules alter due to changes in context” and “conversion differentiates from drift in that the new interpretation of rules is more active compared to when drift takes place”. Within the STAR-FLOOD project, and especially in the step of analysing Flood Risk Governance Arrangements – the step preceding the explanation of stability and change in flood risk governance – it will be necessary to very precisely denominate the degree of stability AND change, possibly by considering all four dimensions of the PAA. It should also be carefully established if change should be seen as **evolutionary** (incremental) or **revolutionary** (radical) (Capano 2009; Capano and Howlett 2009);
2. **Explanatory factors.** A discussion of explanatory factors should include, amongst others, an elaboration of whether change is seen to be **endogenous** change that is change occurring from within a policy system of change that comes from **outside** (Capano and Howlett 2009; Howlett and Cashore 2009). One should also determine the relative importance of the role of **structures vs. agency** (Capano and Howlett 2009), that is the role of individuals vis-à-vis the social structures they are part of;
3. **The explanation behind the explanation.** When assessing the explanation behind the explanation, it should be assessed to what extent change or the absence thereof can be attributed to **chance**. According to Capano (2009:26) “chance” or “serendipity” can explain stability and change, suggesting that there are limitations both to the ability of researchers to theorise changes in flood risk governance and to the potential of actors to purposefully steer developments therein.
4. **Establishing evidence.** When establishing chains of evidence, it is important to compare competing explanations and make use of different sources of data (triangulation). Zittoun (2009) argues that many policy analysts, through the use of their analytical techniques, “distort the object i.e. public policy beyond recognition” (p.65). He therefore makes a case for observing “how the participants produce this identification [of policy change] how they identify and define

problems and transform instruments into action” (p. 80). He also argues that “rather than identifying on one side, the networks and on the other their beliefs, we would like to consider that it is during the experimentation with the connections between belief, problem and public policy that the contingent coalitions are formed which ultimately determine policy content” (p. 80). Indeed, for us as STAR-FLOOD researchers it will likely be fruitful to look at our object of research, flood risk governance, through multiple theoretical lenses, including lenses that presuppose an “objective” reality that can be studied as such and a more “subjectivist” perspective in which we look at perceptions of actors, sense making and attribution of meaning.

The following sections will discuss the main theories on which the explanatory framework discussed in this report is based.

3.2 The Multiple Streams Framework (MSF)

The MSF, originally developed by John Kingdon (1984) is a prominent framework conceptualising policy change. The framework presupposes the existence of three relatively independent “streams”, those of problems, policies and politics (Zahariadis 2007). According to the MSF, often these streams are not connected. Policies are then made in policy subsystems. The main role in connecting *problems*, *policies* and *politics* is reserved for *policy entrepreneurs* who make use of *policy windows* that exist from time to time. A basic assumption behind the model is that individuals involved in policymaking are boundedly rational. They can devote their attention only to a limited number of issues at a time. Therefore, the context in which they operate significantly influences what captures their attention. Key concepts of the MSF are (Zahariadis 2007: 71): the problem stream, the politics stream, the policy stream, policy windows and policy entrepreneurs. These five factors together are expected to determine policy output.

In relation to the MSF, an analysis of Zohlnhöfer (2009) is interesting because it provides – without explicitly referring to the MSF – a more in-depth analysis of what happens when issues do capture political attention. First of all, Zohlnhöfer makes the point that types of policies differ according to the degree in which they tend to capture the attention of high level politicians with decision making power, including the so-called “veto players” (parliaments, presidents in presidential systems). Some policies like those related to taxation and social security systems will grab political attention in most countries most of the time, whereas others, including foreign and environmental policies will do so only from time to time (it seems safe to assume that in most countries Flood Risk Governance will belong to the latter category of policies). According to Zohlnhöfer, who bases himself on empirical research into the role of politics in policymaking more generally, the fate of policies in political processes has some degree of predictability. For instance, governments are very likely to favour the status quo or only moderate departures from it for electoral reasons. Governments may also adopt different types of policies but (Zohlnhöfer 2009: 103): “The adoption of policies may be impeded by electoral considerations unless the government is confronted with problems that put its re-election at risk”. Also (p. 104): “The further the status quo is from the ideal point of the incoming government, the greater the policy change will be all else being constant”. One can also expect, according to Zohlnhöfer, that if radical change is undertaken, it is most likely done at the beginning of a new government period. The current document is not the place to discuss all such theoretical relationships in great detail. It is, however, good to know that some expectations can be raised regarding what happens when policies come into the reach of important political decision makers. For STAR-FLOOD, the question to be addressed is at which moments flood risk governance entered high-level political agendas, whether or not decisions were taken to make profound changes in approaches or legislation, how these dynamics are to be explained and, most importantly, what the relative importance of this political process has been in changes in flood risk governance more generally.

Box 3.1 Examples of questions that could be posed inspired by the MSF

- -Which flood-related problems can be distinguished? When did they get the attention of policymakers? When did they get the attention of politicians? Which factors ensured this (lack of) coupling of problem, policy and politics streams?
- -Did flood problems enter political agendas (both at the lower and higher government levels)? If so, were decisions taken to make profound changes in approaches, policies or legislation? Why (not)? What could be the relative importance of these political processes for changes in flood risk governance more generally?

3.3 Punctuated Equilibrium Theory (PET)

Punctuated Equilibrium Theory (True et al. 2007) seems to be a useful theory for trying to explain stability and change in flood risk governance because the theory explicitly addresses both. PET assumes that most policy processes can be characterised by long periods of relative stability punctuated with short periods of major change. Similar to MSF, PET departs from the assumption of boundedly rational individuals who have to operate in the context of existing institutions. According to PET, most policy issues rarely dominate the political agenda, but at some points in time (True et al. 2007: 158) “some issues catch fire, dominate the agenda, and result in changes in one or more subsystems. The explanation for the same political institutions producing both stasis and punctuations can be found in the processes of agenda setting – especially the dynamics produced by bounded rationality and serial information processing”. Another notion to be derived from PET is that “like earthquakes or landslides, policy punctuations can be precipitated by a mighty blow, an event that simply cannot be ignored, or by relatively minor events that add up over longer periods of time” (p. 160). An important implication for STAR-FLOOD would be that it is probably good to assume that *change is always underway*. Each event at every point in time could be a contributor to change or stability: the devil is in the details.

Related to this, Rayner (2009) argues that what happens in periods of relative stability is probably “to identify a range of strategic possibilities for action. The existence of these strategic possibilities and the use that is made of them by historical agents explains both the durability of the “period” and its ultimate collapse and transition into a new one” (p. 87). It is an important question to what extent change derives from exogenous shocks or from internal contradictions. As Rayner (2009: 91) makes us aware, sometimes [shock events] “tend to close policy windows and inhibit change rather than the reverse”.

There are some other potentially useful notions within the PET framework. PET ascribes an important role to *policy images* or the framing of policy issues and it assumes that there are multiple *policy venues*. The places where policies are made may be as wide-ranging as parliaments, state agencies, ministries, universities, congresses, the media and others. Within STAR-FLOOD, these venues will have to be systematically mapped, to enable the researcher to make an effort to determine their relative importance and influence.

Box 3.2 Examples of questions that could be posed inspired by PET

- What were periods of relative stability in flood risk governance and when did major changes occur? If major changes occurred, can they be related to shock events (e.g. floods, but also major changes in the broader societal context)? If yes, how probable is it that this relationship is a causal one? What minor changes (e.g. actors identifying strategic options for action) have occurred during periods of relative stability and do they contribute to an explanation of later more profound changes?
- In what venues were flood risk related policies made (e.g. parliaments, conferences, state agencies, Ministries, universities, the media)? What was the relative importance of each of them for explaining policy change and stability?
- How were flood issues framed? Which policy images were created and used and by whom? What is the significance of this for explaining stability and change in flood risk governance?

3.4 Advocacy Coalitions Framework (ACF)

The ACF can be seen as an encompassing framework because in principle various other frameworks and approaches are compatible with it. The framework as originally proposed by Sabatier and Jenkins-Smith (1988) and further developed later (e.g. Sabatier and Weible 2007) has been specified to the analysis of wicked problems (ibid). This makes the framework a good candidate for the analysis of flood risk governance, which in some cases possesses some characteristics of wicked problems, including value pluralities, uncertainties and high stakes. Sabatier and others furthermore attach an important role to technical information, something which has traditionally been important in the domain of flood risks. Sabatier and Weible (2007: 192) state: “that researchers, (university scientists, policy analysts, consultants etc.) are among the central players in a policy process”. A question that could be symmetrically considered within the STAR-FLOOD project would then be if various forms of user engagement in research might explain certain policy outcomes and which forms of engagement in which research phase have led to which outcomes (see also Talwar et al. 2011).

At the core of the ACF lies the assumption that in each policy sub-system we may find multiple (at least two) competing advocacy coalitions, that is coalitions of actors that converge in their ideas and compete with other coalitions. Actors within these coalitions have certain policy beliefs as well as a certain amount and type of resources (including 1 formal legal authority; 2 public opinion; 3 information; 4 mobilizable troops; 5 financial resources; 6 skilful leadership) (Sabatier and Weible 2007: 203). According to ACF, the question what actually takes place is an empirical question. The framework does not *presuppose* the existence of different coalitions, but states that their existence and modus operandi should be empirically assessed. For the purpose of the current research, the question is if we do find these advocacy coalitions in the field of flood risk governance in certain countries and cases and at which level, e.g. country or case and most importantly, to what extent stability and change could be *explained* by the presence of these advocacy coalitions.

Within the ACF, it is assumed that policy subsystems are nested within a *broader physical and societal context* which *is* relatively stable and *contributes to* policy stability. In its initial formulation, therefore, within ACF it was assumed that major policy change can come from *external shocks* and *policy oriented learning*. In recent revisions of the framework, two other change patterns have been added: *internal shocks* and *negotiated agreements*. In all cases, the relative stability of policies in the short term was a reason for Sabatier and others to plead for diachronic analyses in which policy developments of at least a decade are taken into account. ACF gives an important role to the so-called *deep core beliefs* and *policy core beliefs* of actors. Changes therein are seen as an important explanatory factor for policy change. Empirical questions for the STAR-FLOOD project derived from the ACF would then be how the deep core beliefs and policy core beliefs of actors involved in flood risk governance can be characterised or whether external shocks have influenced the policy core

beliefs of a dominant advocacy coalition. However, Real-Dato (2009) stresses that ACF's focus on beliefs is one-sided and that both *ideas* (beliefs) and *interests* should be considered when trying to explain policy change.

Box 3.3 Examples of questions that could be posed using the Advocacy Coalitions Framework

- Which advocacy coalitions (if any) can we distinguish in flood relevant policies and at what levels (case, National Flood Policies and Regulations Domain)? How can we characterise the deep core beliefs (e.g. preference for state-led or market-led solutions) and the policy core beliefs of the actors in each coalition? What do these coalitions look like (e.g. which ties can be found between which actors)? To what extent could change or the absence thereof be attributed to these actors' beliefs and to what extent could it be attributed to their interests?
- In National Flood Policies and Regulations Domains, can we find evidence of learning? If so, how did it take place and why? How probable is it that this learning contributed to (the absence of) policy change?
- Can we find examples of conflict expansion within National Flood Policies and Regulations Domains? If so, who initiated this conflict expansion, why and to what effect?

3.5 The Multi-Level Perspective from transitions theory

3.5.1 Introduction

The Multi-Level Perspective from transition theory comes from another body of literature than the explanatory frameworks discussed above. The scholars advancing the perspective focus on the analysis and explanation of transitions in socio-technical systems. Also in scientific literature, only few connections have been made between transition theory and theories from the field of policy analysis. It is, however, useful to discuss the MLP as an additional framework, because from the MLP some hypotheses can be derived regarding relationships between different levels. In the MLP these levels are referred to with different terms than we do in the current report, but there are some similarities between these levels. The macro level within the MLP is what we refer to as 'context', the meso or regime level resembles what we refer to as 'National Flood Policies and Regulations Domain'. Only the niche level does not – as we will show – resemble what we refer to as the case level.

3.5.2 Explaining stability and change from a Multi-Level Perspective

The multi-level perspective (MLP) is a heuristic tool that helps to explain stability and change of socio-technical systems. It is often used in research strands that focus on transitions. A transition is in that strand of literature referred to as a gradual, continuous process of transformation of a societal system. The multi-level perspective draws attention to three levels of reality: the macro-, meso- and micro-level, that are part of a nested hierarchy (see Figure 3.1).

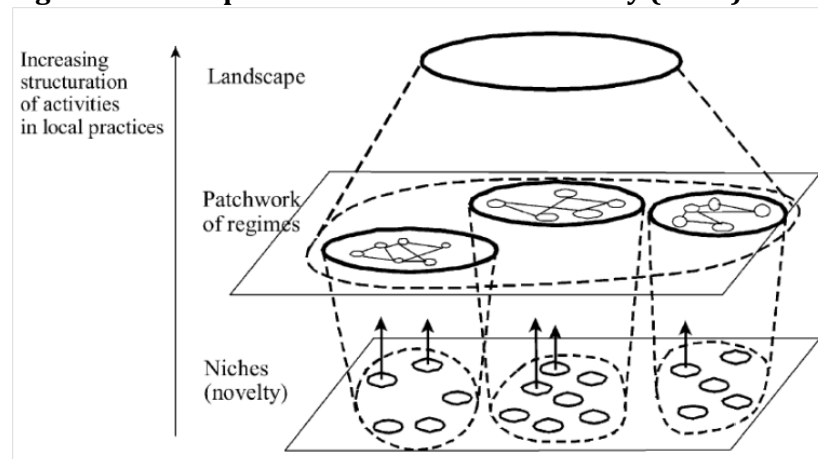
The **macro-level** (by us referred to as context level) encompasses the context, the wider exogenous environment that influences societal systems. Climate change (including global warming and sea-level rise) or economic globalization are examples of elements belonging to the macro-level. Macro-factors are considered to be persistent. On the short term, they are beyond the direct influence of actors and they cannot be changed at will (Geels 2005). On the very long term, persistent mutually supporting initiatives and trends might be able to affect the macro-factors, but the change process is inherently slow. In the MLP approach, the metaphor 'landscape' is used to refer to the macro-level. A landscape can encompass both tangible facets of the natural and built environment (e.g. material and spatial organization of cities, including flood defence infrastructure) and intangible facets (such as national culture, world views, political beliefs, social values).

The **meso-level** refers to the prevailing system installed to deliver a specific societal function. This system can be described as the 'normal' way of doing things. It encompasses a web of interlinked actors, following a set of rules, respecting dominant power relations, and confirming and reconfirming discourses [notice the link with the dimensions of the policy arrangement approach]. In the MLP approach, the so-called 'regime' sits at the meso-level, sandwiched between the macro-level of the landscape and the micro-level of the niche (Berkhout et al. 2003). Within transition theory, it is assumed that change occurs at the regime level incrementally and is geared to achieving optimization, rather than deep change. Inertia is seen as an explanation of difficulties in achieving transitions. In many regimes the vested interests contribute to stability; there is hardly any room for innovation. Shocking events or radical ruptures might offer a 'window of opportunity' for a regime to change. Note that this diagnosis differs from the one offered for instance by the Advocacy Coalitions Framework discussed above, that envisages much more room for change 'from within' than the MLP from transitions theory, through conflict expansion and endogenous learning. This reconfirms the need to actively envisage multiple competing explanations and discuss the plausibility of these.

Whereas the macro and meso level of the MLP resemble our analytical levels of context and National Flood Policies and Regulations Domain, the micro-level in the MLP is something completely different from the case level in our conceptualisation. Within the MLP, the micro-level is the level at which space is provided for experimentation. At this level, we see innovators working, on a small scale, to develop new approaches to providing societal functions (Paredis 2009). Also, at this level, we see the emergence of new practices that deviate from the normal way of doing things (at the regime level). In the MLP approach, 'niches' can be found at the micro-level. Niches are less subject to the influence of the regime and they can act as a safe environment in which breakthrough developments can grow, sheltered from the selection process that occurs at regime level (Geels 2002). A regime may host a range of niches which generate innovations to challenge the status-quo.

Hence, within the MLP, it is assumed that an important driving force for transitions comes from the deliberate creation of protected spaces (niches) which are somehow set apart from the incumbent regime, e.g. through the use of legal exemptions (in the domain of flood risk governance these could include rules for experimenting, exemptions for specific areas or the use of more open norms that provide space for innovation), the setting up of pilot projects or the granting of subsidies. For STAR-FLOOD, it is an interesting empirical question to assess if we can find such examples of 'protected spaces' and what actually constitutes the protection. However, there is no reason to a priori assume that these protected spaces are to be found at case level and if they are, that they can *only* be found at case level. On the contrary, we may very well find out that the case level is the level where most resistance and rigidity is present and where most examples of path-dependency and lock-in manifest themselves. For similar reasons, we also do not a priori assume that, as MLP scholars state, transitions are only possible when there is enough pressure coming from the micro- and macro-level. As said before, change from within, at regime/policy sub system level may very well be possible. It seems safest to assume that at all three levels (case, National Flood Policies and Regulations Domain, and context) we may find both factors that contribute to change and factors that inhibit change.

Figure 3.1 Multiple levels as a nested hierarchy (2002)



Box 3.4 Examples of questions that could be posed inspired by the MLP

- In explaining stability and change, what role is played by the context level? For example, did any shock events occur, and if so, what were their effects? Did they reinforce stability or did they trigger major change?
- Can we find examples of ‘protected spaces’ (niches) ? If so, what constituted the protection (e.g. legal exemptions, pilot projects, subsidies)? Where do we find these niches (e.g. certain geographical regions, certain types of river courses, certain sectors etc.)?
- How ‘receptive’ is the National Flood Policies and Regulations Domain for change? For instance, how stable/dynamics are certain rules and regulations? How open is it to the entrance of new actors? Has a discursive shift occurred or not?

3.6 Some syntheses between the policy analytical frameworks for explaining policy change

When we compare the three frameworks with the help of the six factors denominated in the section on conceptual and epistemological starting points, some syntheses and differences can be identified:

1. **Structure vs. agency.** The three policy analysis frameworks to some extent seem to presuppose a duality of structure (Giddens 1984) in which actors are enabled and constrained by their structural context and have some possibilities to change this context. The MSF attaches a large role to agency by putting policy entrepreneurs who use policy windows forward as the main explanatory factor for policy change. Also the ACF provides much space for agency through its focus on coalitions of actors and their beliefs. The main focus of PET is on policy subsystems. Hence, analyses performed using the PET framework will put more emphasis on structural preconditions. Also PET notions like *policy images* and *policy venues* can be placed closer to the structure side than to the agency side. As opposed to the policy analysis frameworks, the Multi-Level-Perspective leaves very little room for agency: it focuses entirely on systems.
2. **Endogenous vs. exogenous change.** All the three policy analysis frameworks seem to attach importance both to exogenous and endogenous factors. The MLP, on the other hand, only talks about endogenous factors in the sense of referring to a regime that is more or less ‘receptive’ to change. The main origin of the change is expected to come from outside the regime (exogenous change). MSF focuses on how and why policy streams become connected to problem and political streams. PET argues that many developments may be going on within a policy subsystem before large observable change occurs. These changes are, however, expected to be triggered by shock events, which in principle can originate from within and from outside the policy subsystem. In the ACF, various endogenous and exogenous sources of change have been explicitly denominated. The former include internal shocks, policy-oriented learning and negotiated agreements. The latter includes external shocks induced by the wider context of the

policy subsystem. This similarity between the frameworks is acknowledged by Real-Dato (2009) who argues that endogenous change often occurs via learning. According to Real-Dato, the chance that learning takes place is enhanced by the existence of institutional elements within organisations and at sub-system level designed to foster it, such as internal or external evaluations, consultative bodies, professional fora, information systems integrated in policy implementation procedures etc. Learning is believed to be less likely in contexts in which individuals with alternative views are easily marginalised. Another mechanism of endogenous change is conflict expansion (Real-Dato 2009). Contrary to learning, this is expected to be originated by outsider participants. Finally, Real-Dato distinguishes *exogenous impacts* of the types discussed above. These include changes in material conditions, attributes of the community (socio-economic conditions, public mood), focusing events etcetera.

3. **Evolutionary vs. radical change.** MSF and ACF are not very explicit in whether they conceptualises change as evolutionary or radical. On the contrary, PET assumes change to be BOTH evolutionary and radical although the criteria for denominating something as a radical or revolutionary change remain of course arbitrary. The MLP was developed to analyse socio-technical transitions and hence focuses by definition on radical change.
4. The **explanandum.** Looking at the explanandum, the three policy analysis frameworks put different emphases. MSF tries to explain the extent to which connections are made between the three steams of policies, politics and problems. The main question that is posed is why some issues enter certain agendas and why not. Also PET heavily emphasises the issue of agenda setting. It furthermore poses the question of why the supposed punctuation of major and minor change occurs. The ACF does not very specifically denominate what it is that should be explained, but it seems that this is the policy output and policy impacts of policies within policy subsystems. Regarding the explanandum, Real-Dato makes the important point that the time span under consideration to some extent determines if the researcher observes change. It has been shown that different events can be seen as stability and change, depending on the length of the time frame under consideration and, related to this, the baseline situation that is – often implicitly – assumed (change compared to what?) (see also Rayner 2009). The MLP intends to explain changes in socio-technical systems which are assumed to comprise three different levels (micro, meso and macro level).

It seems that issue 5, the extent to which change or the absence thereof can be attributed to chance (B4.7) is not explicitly addressed in any of the frameworks. Issue 6, the extent to which policy change can be objectified (B4.7) is addressed implicitly in the sense that all frameworks seem to presuppose that policy analysis and explanation can be rather objectivistic. However, “subjectivist” factors are included in the PET framework (policy images), while ACF gives the beliefs of actors centre stage.

3.7 The relationship between structure and agency

An assumption central to the STAR-FLOOD proposal and also to the PAA (Arts et al. 2006) is that of a *duality of structure* (Giddens 1984). In the past structure and agency were viewed as a dichotomy. Most modern social theorists, however, now stress the reciprocity between structure and agency. As Giddens (1984: 19) puts it “One of the main propositions of structuration theory is that the rules and resources drawn upon in the production and reproductions of social action are at the same time the means of system reproduction (duality of structure)”.

Individuals are part of wider systems and are influenced by structures but at the same time through their actions they contribute to on-going system reproduction. Especially when we start to delve into the role of change agents, it will be key not to underestimate their role by focusing solely at the level of policy the National Flood Policies and Regulations Domain. But neither will a focus solely on individuals, attaching an almost heroic status to them, be appropriate. The challenge will be to arrive at a balanced analysis.

Giddens (1984) often uses language as an illustration – and an example – of what he means with his notion of duality of structure. When people use a language, they make use of certain rules and resources (grammar, vocabulary). Only if they do so – nearly – correctly, others will understand what they are saying or writing. However, how users exactly speak or write may shift gradually over time. New vocabulary is added, other words cease to be used, the way grammar is used changes over time. If enough people stop using a word, it may even ‘cease to exist’. Vice versa, if enough people start using a word, after some time it may be included in dictionaries and rules on when to use it may become formalised. This example of language highlights that many ‘normal’ ways of doing things are tacitly reproduced.

There are different degrees in the ease with which structural factors can change (see e.g. Williamson’s (2000) distinction between four levels of institutions, some of which can change much easier than others). In some cases language can easily evolve (e.g. new words, slang (street language) etc. emerge every year), but it can also be really stubborn when it is connected to deeper core beliefs. This is the case when language produces a discourse, in which it actually matters **how** something is said. This way of speaking is actively maintained by the advocates of the discourse.

3.8 Change agency literature

Caldwell (2003) has synthesized much literature on change agency. From this synthesis he has developed a proposal for a classification according to four types of change agents: *leadership*, *management*, *consultancy* and *team* models. Each category includes various theoretical streams which we will not discuss in detail here. An important lesson for STAR-FLOOD is, however, that change agents are likely to be found at different places and in different roles. They can be leaders or senior executives, middle level managers, external or internal consultants and they can work at a strategic or at an operational level. Change agents can even be teams. In our empirical research, we will have to address the question which types of change agents we can encounter where, which factors determine their influence or the lack thereof and what their relative importance for explaining policy change is. Also Huitema et al. (2011) have delved into the notion of change agency. They have analysed strategies of policy entrepreneurs in water transitions and found that these individuals can employ various *types of strategies* to reach their goals. These include the development of ideas, the building of coalitions, the selling of ideas, recognizing and exploiting windows of opportunity, orchestrating and managing networks and recognizing, exploiting, creating and/or manipulating multiple venues.

Olsson and Hysing (2012) add some other insights to the literature on change agency. First, they hypothesise that various contemporary societal developments provide individuals with more room for manoeuvre. These developments include a broader shift from government to governance, a trend towards more civic engagement, a growing demand for professionals as expert consultants and a general weakening of democratic power and an increase in bureaucratic power. Olsson and Hysing found a new type of change agent called the inside activist. This is someone who is engaged in civil society networks and organizations, who holds a formal position within public administration and who acts strategically from inside public administration to change government policy and action in line with a personal value commitment.

Brouwer and Biermann (2011), partly in line with Huitema et al. have analysed strategies of policy entrepreneurs in Dutch water management. Contrary to Huitema et al. their analysis was largely focused at the sub-national level. They conceptualised policy entrepreneurs as “risk-taking bureaucrats who seek to change policy and are involved throughout the policy change process” (p.5). Based on a synthesis of existing theories – including MSF, ACF en PET – and after empirical research they identified a range of strategies policy entrepreneurs make use of: (1) attention and

support-seeking strategies, to demonstrate the significance of a problem and to convince a wide range of participants about their preferred policy; (2) linking strategies, to link with other parties, 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 place wherein decisions are made. Within each of these four types, a number of concrete strategies were identified as depicted in table 3.2.

Table 3.2: Strategies of policy entrepreneurs found in the Dutch water management domain

Attention and support seeking strategies	Linking strategies	Relational management strategies	Arena strategies
-pilot projects -indicators -focusing events -rhetoric -correlating	-coalition building -selective activation and exclusion -issue linking -game linking	-trust building -networking	-venue shopping -timing

Brouwer and Biermann arrived at a number of conclusions of relevance for the research goal of STAR-FLOOD. First, their findings suggest that policy entrepreneurs are quite common and through their characteristics are relatively easy to identify – at least in the context of Dutch water management. It was found, for instance, that within Dutch water management 339 policy entrepreneurs can be found within 491 Dutch local government bodies. Second, these policy entrepreneurs are generally hard working people with entrepreneurial skills. With this, the authors mean that policy entrepreneurs want to achieve change and are willing to take risks to achieve these. Third, policy entrepreneurs have been found to use a mix of strategies in a way that is by Brouwer and Biermann referred to as “juggling”. The policy entrepreneurs are depicted as both streetwise and boundedly rational. Fourth, contrary to much of the literature discussed above, Brouwer and Biermann are relatively positive about the potential of policy entrepreneurs to achieve policy change. Based on their research, they question, for instance, one of the basic assumptions of the MSF, being that the streams of problems, policies and politics are relatively autonomous, are rarely coupled and if they do so are generally coupled ‘by accident’. Brouwer and Biermann go against this by claiming that policy entrepreneurs are essential key actors that are continuously working at the linking of the three streams.

A lesson for STAR-FLOOD is that we should continuously ask ourselves the question how much room for agency there is in achieving policy change in flood risk governance. While most of the discussed literature argues that the margins are small, Brouwer and Biermann, but also Olsson and Hysing provide arguments for the thesis that there might be more levers for action than is generally assumed. It is an empirical question how this works out within the countries and cases of STAR-FLOOD. To be able to address this question, it is necessary to look critically at the actual actions of individuals – including policy entrepreneurs. Who are they? What do they do exactly (which strategies do they use)? In which contexts do they operate and to what effect? When making this analysis, it is important to bear in mind that individuals cannot only act with the aim of establishing change, but on the contrary, that they may also use their entrepreneurial skills for maintaining the status quo.

Box 3.5 Examples of questions that could be posed inspired by literature on change agency

- What types of change agency can we find in the domain of flood-risk related policies? Who were the change agents (e.g. senior executives, middle level managers, external or internal

consultants)? Where do we find these change agents? Which strategies did they use (e.g. can they be described in terms of Huitema et al.'s conceptualisation, or in terms of the four types of strategies depicted in table 1? In which contexts do they operate and to what effect?

- How can we characterise the relative room for manoeuvre for change agents in a specific country or case? Has this room for manoeuvre increased or decreased in the course of the years and why?

3.9 Relationship between explanations by policy analysts and legal scholars

The legal discipline, contrary to the social sciences, does not have dedicated theories, models or methods to explain the data provided by (empirical) research. This does not mean, however, that legal scholars cannot contribute to explanations for stability or dynamics, on the contrary. For one, even in the absence of dedicated theories, models and methods, legal scholars are familiar with making explanations. When they describe legislation, legal scholars generally tend to also describe or explain why this legislation has been established (e.g. positive law study). By identifying the purposes of new legislation, legal scholars can identify factors that may cause change or at least reflect a desire for change. Second, many of the factors explaining policy change have a legal component and one can generally expect policy change and legal change to be inextricably linked. In some cases, explanatory factors may be the cause of changes in legislation and case law as well as in policy. On the other hand, changes in legislation and case law may in turn be explanatory factors in themselves. An example of a dramatic legislative operation is the Dutch crisis and repair law, which on the one hand was inspired by the economic crisis and aimed to accelerate large infrastructural projects to combat the said crisis, and on the other hand includes some radical changes to existing legislation which prompts a certain response in actors. In sum, we expect the explanatory factors described in chapter 4 to be recognisable and useful both for social scientists and legal scholars.

The legal system both at NFPR and case study level is part of the Flood Risk Governance Arrangements whose stability or dynamics we intend to explain. As we have shown in chapter 3, legal factors are predominantly to be found at the rules and discourses dimension of the PAA. Since the legal system at the NFPR level is part of the explanandum, changes and stability in legal systems need to be explained. At the same time, the STAR-FLOOD researchers will have to determine the extent to and ways in which the legal system influences societal changes in turn.

In this respect, we can sketch the following potential interrelationships between changes in policies and changes in legal systems:

- One can logically expect that in many cases *legal systems respond to societal changes and change in turn* (e.g. through teleological interpretation, the adoption of new legislation or the contra-*legem* application of legal principles. Different legal systems will do this in different ways. This could be an explanatory factor for change in flood risk governance, because it might affect how change occurs. E.g.: differences in amount of public support needed before the legislator takes action or when courts take action.
- *Legal systems can to some extent obstruct, hinder, or contradict societal changes*. Put in other words, the ability of the legal system to accommodate change may not always be sufficient and law can be more conservative than society. In that sense, a rigid legal system could be an obstacle to change. This is also related to path-dependency. Once a legal system is in place, it may limit what further developments are possible: existing rights tend to be protected.
- Endogenous change within the legal system can take place, but this can be expected to be of limited importance overall. For civil law systems, there is a tendency of the legislator to respond to unforeseen events with new regulation tailored specifically to that event, resulting in increasingly detailed regulation (Van Rijswick and Salet 2012). There is a similar tendency in

common law systems to produce increasingly detailed rules in case law. In case of unmanageable levels of detail there may be legislative operations to codify and simplify (Van Rijswick and Salet 2012).

- Law can be used as a tool to instigate change. This requires action by rule makers either following democratic debate or for other reasons. It does not cause this change by itself, but the way legislation is drafted may affect whether the desired change is accomplished. The effectiveness of law as a tool to cause societal change is debated, because legal norms are not necessarily obeyed. (see also the remarks on effectiveness in chapter 5)

3.10 Natural law, positive law and their relevance for explain stability and dynamics in flood risk governance

Many explanations for change or stability in the legal framework can be understood through the concepts of natural law and positive law and their avatars in the legal framework. Natural law (or *lex naturalis*) is a system of law determined by nature: “it is a view that certain rights or values are inherent in or universally recognizable by virtue of human reason or human nature, while positive law is the legal tradition whereby certain rights or values are legally cognizable by virtue of judicial recognition or articulation”.

This opposition between natural law and positive law echoes the role attributed to law in society. Once again two opposite visions can be identified and are related to the formerly described distinction. On the one hand, law can be viewed as a tool to promote and convey a certain type of social model, according to some specific values or some overarching principles (fundamental rights for instance). On the other hand, law can be viewed as a responsive instrument to societal change, sticking to a social reality and implementing legal norms needed by these changes. As an illustration, France’s recent debate on gay marriage illustrates very well this opposition. Indeed, most of the debate was evolving around a clash between two perceptions:

- **An idealist vision of law** (natural law): giving or not giving the right to gay people to get married depends of what model of society you want to build in the future. Values related to the traditional family are important and giving the right to get married is going to rattle these values and models. Here law’s role to play is about carrying an idea of what society should be;
- **A more pragmatic vision of law** (positive law): gay people live together in France, there are many of them who live as if they were married and this is just the way things are. Society is made of this reality. In this view law’s part to play in society is to give them the right to get married in response to this specific societal evolution.

It is important to keep in mind this conceptual opposition as it underlies most of the explanatory factors for stability and change in the legal framework.

3.11 Stability and dynamics in the legal framework

3.11.1 Introduction

Legal explanatory factors can be seen as important structural factors. One may argue that legal explanatory factors are more relevant or prominent to explain stability than change. Indeed, the legal framework has a tendency to absorb change and, in some ways, to digest and assimilate new rules, laws or treaties much more slowly than any other systems. If we do find such inertia, it will be important to understand why it is there and to try to explain it.

3.11.2 Stability in legal frameworks

An important explanatory factor for stability in legal frameworks can be identified through the theory developed by the Austrian legal scholar Hans Kelsen, i.e. the **hierarchy of legal norms**. Hans Kelsen defines the static theory of law as a hierarchy of laws where the individual laws were related to another as either being inferior, or superior with respect to each other. This hierarchical aspect of the legal framework ensures some sort of stability and a hypothesis could be that the higher the legal norm is, the more stable it should be. The highest principles at the top of the pyramid can be written down in a Constitution as in France, or can be identified by the judges as in an Anglo-Saxon common law model. The level of importance given to each of these principles is usually revelatory of a legal and political tradition.

Concerning floods, on the top of this pyramid there are some founding principles for each national legal framework that are directly linked to this matter. **Property right, security and liability** stand as the most common founding principles shared by most of western European countries. Indeed public administration has generally three main duties: to respect everyone's property right, to protect each citizen from natural disasters and to provide a compensation system taking into account the responsibility of each actor. The main challenge for all legal frameworks is to find a balance between all these principles. This tension between them limits the innovative potential and the discretionary power (decisions and interventions) of the administration. More generally, fundamental principles can be seen as a strong explanation for stability from a legal point of view. They provide, as superior norms that can be referred to, a steady ground for the legal environment. These fundamental principles are fairly intangible but adjustment and balance between them can be a factor for change.

The practical consequence of this for STAR-FLOOD is that each consortium country could try to identify these principles, try to see what their legal status is as well as their place in the pyramid of the legal norms. Having a clear view on which principle seems to be dominant and which ones are being more and more rattled could give some good keys for understanding stability and change in legal frameworks. Moreover, comparison between each case study should be done while being aware of these differences.

3.11.3 Instability of the legal framework

Apart from these fundamental principles, a strong instability exists in legal frameworks, due to some legislative overproduction in most European countries. This procedural instability is due to a very high frequency of legal norms production. For instance, in France's urban planning legislation, since 2000, the frequency of legal norms has boomed and it is once or even twice a year that some new legal dispositions are adopted in this specific field. This instability proves to be very problematic for the stakeholders and the legal environment can become too fluctuant. Many actors, and not only in the field of flood management, find it too complex or even completely abstruse. This lack of readability tends to create a lack of transparency in public decision making.

This characteristic of legal norm production can help legal scholars and policy analysts to find a common ground for explaining change, as the legal framework is strongly influenced by exogenous factors such as shock events or societal evolutions. Rushing for the adoption of a new law in reaction to a major flood is probably something that every European country has already experienced. Another explanatory factor for legal instability is the disconnection between electoral mandates and a sensible frequency for legal norms production. Changing of government or of parliament representatives always sees a bunch of new rules going out as a buzzing effect and acting as smoke and mirrors. Cycles of legal production are too close to each other and operate on very short term. More generally, there has been a strong acceleration in the frequency of legal norms production over the past 10 to 20 years.

3.11.4 Dynamics in legal frameworks

This high level of inconstancy does not necessarily mean that major changes in the legal framework will occur automatically. Indeed, a distinction should be made between volatility/instability and change. Legal overproduction mostly reveals a procedural problem rather than a sensible evolution in the legal framework.

Yet, some major long term motions can be identified from a legal perspective and can be considered as deep changes starting to produce some effects on the legislative power and on the appreciation in tribunal decisions. For instance, changes such as the emergence of soft law in European legal frameworks, or the increasing obligation to evaluate legal norms, or the “contractualisation” phenomenon are all long-term trends that can be used to explain change. Moreover, some new principles tend to emerge such as the precautionary principle, transparency, information, public participation and more generally good administrative practices. A more in-depth analysis of these changes should be done as WP3 will advance. The description of the flood policy and regulation domain for each country could be a good occasion to evaluate the importance of these changes in each STARFLOOD country.

The constitutional structure of a country is another good example of a set of structural factors that can contribute to explaining stability or change. Although laws can be changed, some laws are easier to change than others. Constitutional norms are resistant to change, and when these norms relate to the way in which competences are distributed and which actors are expected to initiate change, they are even more so. The level of centralisation or decentralisation in a given jurisdiction will affect how change occurs as well. In decentralised countries legislation might be easier to change on a local level, when local circumstances dictate. In a centralised country it is possible that change in legislation is more time-consuming, and the threshold for change is higher, because the legislation processes at national level tend to be more complex, but when a change is made, it applies to the whole country and has a large influence.

3.11.5 Conclusion

Fundamental principles give a fairly stable and unmoving base to the legal framework by playing the role of reference for the rest of the legal norms. These principles are mostly shared by western European legal frameworks. But from a procedure point of view, legal frameworks seem to be very unsteady and unclear. The STARFLOOD consortium countries are all characterized by a very high level of law production frequency. As a conclusion we may advance the hypothesis that change occurs in legal frameworks according to different temporality and different type of cycles. Short term cycles show a very reactive side of the legal framework, strongly influenced by exogenous factors such as elections or shock events. These short term cycles can be identified and analysed within some more long term cycles of general trends such as the emergence of new fundamental principles.