



The sour and sweet grapes of an institutional transition: Impacts of institutional transition on public policy design in water management sector in the Netherlands

N. Frantzeskaki, M. De Jong, P.W.G. Bots

► To cite this version:

N. Frantzeskaki, M. De Jong, P.W.G. Bots. The sour and sweet grapes of an institutional transition: Impacts of institutional transition on public policy design in water management sector in the Netherlands. Doctoral Workshop of the 11th International Research Symposium on Public Management (IRSPM XI), Apr 2007, Postdam University, Germany. Proceedings. Chr. Reichard & K. Brown (Eds), 11 p., 2007. <hal-00468547>

HAL Id: hal-00468547

<https://hal.archives-ouvertes.fr/hal-00468547>

Submitted on 31 Mar 2010

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Paper for the Doctoral Workshop of the 11th International Research Symposium on
Public Management (IRSPM XI) 2-4 April 2007 Postdam University, Germany

The sour and sweet grapes of an institutional transition

Impacts of institutional transition on public policy design in water management sector in the Netherlands

Niki Frantzeskaki¹, Martin de Jong¹, Pieter Bots^{1,2}

1. Delft University of Technology, Faculty of Technology, Policy and Management, PO Box 5015, NL-2600 GA Delft, The Netherlands, correspondence e-mail: N.Frantzeskaki@tbm.tudelft.nl

2. Cemagref, Montpellier Regional Centre, BP 5095, F-34033 Montpellier, France.

Abstract

The last decade a general shift has been realized in the water management sector in the Netherlands. The shift from a top-down (cooperative monopoloid) to a bottom-up institutional setting (cooperative multi-centric) was accompanied by various effects on the societal context. The benefits of the institutional shift do not only involve the most important actors (e.g. the Ministry of Transport and Water Management, the Municipalities) but also allows them to achieve their goals. The disadvantages of the institutional shift concern the long duration of the policy design process since issues and perceptions are steered in multiple phases and negotiated at all levels of institutional structuration. These undesirable effects can be considered as the impacts of the institutional transitions and can be alleviated by a more thorough design of the policy design process along the administrative layers as well as by the sustaining of openness and diversity of actors in the policy design process. The fruitful cooperative climate between the involved administrative bodies of water management sectors need to be conserved for forthcoming water policy challenges.

Keywords: institutions, transition, decentralization, policy design, water management.

1. Introduction

Institutional reforms are realized in several European countries so as to respond to demands of higher efficiency and effectiveness in serving public interests. The institutional structure shapes the conditions under which the policy development will progress as an accommodation space for actor interaction and collaboration. The impact of these reforms on the content and the process of policy design are unquestionable. However, there is no conceptual ground for public administrators to step up when designing institutional transitions so as to foresee the impacts of it on the policy design space. Researching the institutional design field and the institutional change field, it is observed that there is neither clear linkage between institutional structures and institutional settings nor a clear description of the shifts between them in face of a structural change. The current study aims at providing an answer to the following research question: *Can we develop a typology of institutional transitions?* The links between structures and settings and a typology that captures the institutional shifts is needed so as to provide the theoretical ground for further elaboration on the impact of institutional transitions on policy design process.

Practitioners in the policy design field –in the water management sector in the Netherlands- specify the prolonged time and the closedness towards new ideas of policy design processes as problematic effects but have no idea on how these are caused. The basic promise of this paper apart from the development of the typology of institutional transitions is also the unraveling of causal links between the institutional transition and the characteristics of the policy design process.

3. Research methodology

The first step incorporates the delineation between institutional structures and institutional settings so as to distinguish the types based on the two operational levels (De Jong, 1999;

Scharpf, 1997). Institutional structures (De Jong, 1999, p.90-99) provide a description of systems at a higher level of aggregation such as the state which are placed at the macro level or institutional landscape. Institutional settings (Scharpf, 1997, p.46-47) concern the organization of administrative bodies at a lower level of aggregation namely the meso level. Institutional settings are the emerging systems having institutional structures as substrates (See Appendix, Box 1).

The second step includes the drawing of links between the structures and institutional settings. The links between the different types of institutional structures and the different types of institutional settings comprise the integrated conceptual model and show how the institutional landscape conditions which types of institutional settings will be constellated. The usability of the conceptual model rests on the diagnostic power to explain the forthcoming changes in the level that is the buffer of the transition.

The third step includes the development of the typology of the institutional transitions (Jaspers, 2003; Lane, 1997) by showing the impact of decentralization and/or centralization on the type of institutional structures.

The fourth step incorporates the application of the developed typology and the conceptual model. It is used as a tool for analysis of the water management sector in the Netherlands. A comprehensive and in-depth analysis of the function and structure of the water management sector has been performed using literature reviews, in person interviews (20 interviews in total with at least three representative interviewees from every actor group) and in-situ observations. Different actor groups were identified and tailor-made questionnaires developed per actor group so as to gather information and data on the function, organization and problems of the water management sector.

4. Results

The result of the research is not only to place every one of the administrative bodies under the typology developed but also to show the shifts within the settings spectrum after the institutional change. The transition of institutional structure of the water management sector in the Netherlands from monocentric to multicentric cooperative institutional structure posed significant impact on the way policy development proceeded. The decentralization took place through devolution and de-concentration. The evaluation of the policy design process revealed that the institutional transition yielded not only benefits but also problems.

4.1 Typology of institutional transitions

The institutional structures constitute the institutional landscape and influence the types of organizational arrangements of administrative bodies in the form of institutional settings. Since institutional settings are the emerging systems that have the institutional structures as substrates, the type of institutional structure conditions the types of emerging institutional settings. This is presented in Table 1 where every institutional structure is linked with the different potential institutional settings. For example, in a multicentric state where the power is diffuse and there is no specific centre of controlling power, joint-decision systems and networks can develop where interdependencies dominate and unilateral agreements and negotiations are the preferred modes of interaction.

Table 1: Institutional structures conditioning the formation of institutional settings.

Institutional structures (Macro Level or Institutional Landscape)	Institutional settings (Meso Level)
Monopoloid	⇒ Hierarchical organizations
Multicentric	⇒ Joint-decision systems ⇒ Networks
Cooperative	⇒ Hierarchical organizations ⇒ Associations ⇒ Regime
Competitive	⇒ Anarchic fields

Hybrids of institutional structures are also possible to be formed e.g. pure monopoloid institutional structures are quite rare but competitive monopoloids are common in Eastern Europe. Institutional settings are adjustable and adaptable to the administrative services they need to provide to the civil society.

Institutional transitions refer to irreversible high-impact changes in all levels of institutional structuration. Institutional transitions concern not only reforms at the institutional landscape but also the consequently changes at the meso level of institutional settings. Institutional transitions (reforms) respond to the demand for improvement of the key public sector operations: allocation, redistribution and regulation (after Lane, 1997, p.9). Institutional transitions can be initiated from both levels: Top-down imposed shifts (starting at institutional landscape) are followed by changes in the operation styles at the institutional setting level. Top-down institutional transitions are more frequently realized and described – addressed as public reforms (see Lane, 1997) – since the exercise of (legitimization) power from administrative authorities remove implementation barriers of such a transition. Changes in the form of interplay between settings and changes of organizational routines that institutional settings need to realize ask for an upgrading shift at the higher level of institutional structuration that is the institutional structures’ level. Bottom-up institutional transitions may need more time to be realized since meso level perturbations need to overcome administrative barriers and institutional sclerosis in order to pose a restructuring of the institutional landscape. Institutional transitions can thus be realized either at a top-down or at a bottom-up direction.

There are two types of institutional transitions initiated at the institutional landscape: centralization and decentralization (Lane, 1997, p.9, 25-26; Jaspers, 2003). Centralization strives for a concentration of administrative power and tasks to a central authority while decentralization concerns the distribution of decision power to the lower level of administrative strata via “the insertion of market type decision mechanisms into the public sector without resorting to privatization proper” (after Lane, 1997, p.9-10). More particularly, there are three potential ways to implement decentralization: delegation, devolution and deconcentration. Every transition mode poses a different impact on the institutional structure that is consequently followed by a change on the institutional settings’ level.

The modes of decentralization and their impact on institutional structures are presented at this point. The present definitions are adopted by Jaspers (2003) and Uijterlinde, Janssen and Figuères (2003). When devolution is realized, executive tasks and competencies are assigned to other administrative levels. This complete shift of authorities and power characterizes the transition from a monopoloid to a multicentric institutional structure where tasks and administrative power are concentrated to multiple administrative institutional bodies (Figure 1). In the devoluted decentralized society, “the lower administrative level is responsible for decision making and resource mobilization” (Jaspers, 2003, p.84). When de-concentration is realized, “executive tasks and competencies are assigned to other (regional) offices of the central authority or to lower levels within the same administrative structure” (Jaspers, 2003, p.84). The dispersion of responsibilities from a central government to regional branch offices conserves the monopoloid

structure since the authority and the responsibility are exercised within the central institution. In **delegation** there are flows of tasks and competencies from the central authority to other public or private authoritative bodies irreversibly. When delegation is realized, there is a clear transformation from a monopoloid to a balanced¹ monopoloid institutional structure with shared responsibilities and authority (Uijterlinde, Janssen and Figuères, 2003, p.6).

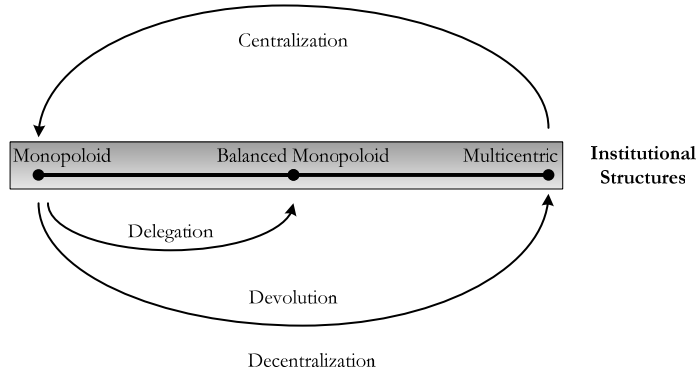


Figure 1: Centralization and decentralization transition modes between monopoloid & multicentric institutional structures.

For example, a decentralization change in the form of devolution is translated as a shift from the monopoloid to the multicentric institutional structure (Figure 1). That also translates into a change at the institutional settings' level from hierarchical organizations either to networks or to joint-decision systems (in consistency with Table 1).

4.2 Institutional transition and its impact on the flood defence policy regime in the Netherlands

4.2.1 Water management sector in the Netherlands in a nutshell

Let us first present the institutional space of the water management sector in the Netherlands. The water management sector in the Netherlands is well organized but fragmented when considering the tasks sharing and/or overlapping between the different administrative bodies. The administrative bodies and their respective roles, tasks and services of every organization level are presented briefly below:

- *National level:* The Ministry of Transport, Public Works and Water Management (Ministry of V&W) provides the funding for the entire national and regional water related infrastructure being responsible for the formulation of the main policy directions about water issues, responsible for the main rivers and for the primary dikes. The Directorate General for Public Works and Water Management (Rijkswaterstaat or RWS) established in 1798 assigned with the main tasks of the supervision of water management and support during the implementation phase of policies after the decentralization of 2002. The Directorate General for Public Works and Water Management is supported and supervised by the Institute for Inland Water Management and Waste Water Treatment (in Dutch Rijksinstituut voor Integraal Zoetwaterbeheer en Afvalwaterbehandeling or RIZA) that is the advisory body of RWS and conducts research on water management topics. The Directorate General for Water established in 2002 assigned with the task of formulation the national policy on flood protection and water management (NHV-special 6, 2004, p.88-89).

- *Provincial level:* Provinces are assigned with the task to define and supervise actions related to flood protection and water management. They formulate policies themselves but they are dependent on the directions drawn by the Ministry of V&W and by its approval (NHV-special 3, 1998, p.85). The Provincial boards are the middle administration level between the policy makers – the Ministry of V&W – and the policy executors that are mainly the water boards.

¹ The term “balanced monopoloid” is used since the delegates coming from the lower levels of administration are taken tasks and duties within the central administrative body without ‘diluting’ the mono-centric authority of the central authority.

- *Regional and Local level:* The Municipalities and the Water Boards are assigned with the task to actually reinforce the designed policies concerning the water management sector and specifically the flood defence policies. The water boards are without doubt the competent authorities dealing with flood protection management and maintenance. They actually communicate the policies to the local society; they are the communication buffers regarding the reflections and the reactions of the society and are responsible for the public consultancy in cooperation with the municipalities (NHV-special 6, 2004, p.77 and 89-90).
- *Interorganizational level:* The Interprovincial Platform (where all provinces are members), the Association of Municipalities as a board of deputies of all the municipalities and the Union of Waterboards are placed in the interorganizational level of the water management sector. The main function of the administrative boards found at the interorganizational level is the steering of processes and negotiation in a interorganizational arena so as to reduce actors and issues in national arenas (since provincial, regional and local authorities are represented by deputies of the inter-organizational boards).
- *Intraorganizational level:* During the policy design process of flood defence policy in the Netherlands, there have been established a steering committee and an advisory group established for each area (upper or upstream and lower or downstream area). Both the advisory group and the steering committee were established by the Ministry of V&W after the 2001.

4.2.2 Institutional transition in the water management sector in the Netherlands

Opting for more effective and efficient institutional structures, the Dutch central government realized two decentralization changes that concerned the establishment of the Directorate General for Water in 2002 by the Ministry of V&W and the redistribution of policy execution and design tasks between the provinces and the water boards enhanced with the clustering of water boards.

Decentralization through de-concentration: Before 2002 the Directorate General for Public Works and Water Management (Rijkswaterstaat or RWS) was responsible not only for the supervision of the water management and the support of policy alternatives when implemented but also for the policy design concerning flood protection and water management. After 2002, the national policy on flood protection and water management is conducted by the newly established Directorate General of Water. The main task of RWS now is to reinforce policies and formulate proposals for plans and projects. The decentralization of Rijkswaterstaat was realized with the de-concentration of its executive tasks to another directorate within the Ministry of V&W.

Decentralization through devolution: The last 30 years there is a change in the size and the number as well as in the tasks of the water boards. A milestone event that signaled this change is the Water Board Act (1991). According to the Water Board Act, the provinces can formulate policies of their own but must adhere to the directives issued by the national government. They must ensure that the national and provincial policies are implemented by the municipalities and the water boards (after NHV-special 6, 2004, p.89; The Water Handbook, 2004, p.10 and 65).

The growth of the population led to the increase of the delegates and the interested participants in local level. Legitimizing the motto “the people pay and have a say” (“*belang betaling, zeggenschap*”), representatives by the house owners and residents as well as by polluter groups (e.g. firms) are elected to participate in the local governments

(NHV-special 3, 1998, p.37). The later changes are a clustering in 37 over-sized² water boards in 2004 (down from 129 in 1990 and 66 in 1998 after NHV-special 6, 2004, p.90; The Water Handbook, 2004, p.61) that have their own consultancy experts, are able to deal with local problems (Website of Union of Water boards) and are responsible for flood control, water quantity, water quality and treatment of urban wastewater. The decentralization of the tasks transferred to the water boards is also supported by legislative action (the Water Board Act).

This change of the size as well as of the tasks of the water boards is a sign of devolution. Water policy design that was conducted by the Provinces mainly is now realized by the water boards, since they are capable of designing and executing policy plans due to the increased expertise and human capital they have. Since execution tasks and competencies were transferred from a higher administrative level (provincial) to a lower level (local) it is without doubt a devolutionary decentralization.

The institutional structure of the water management sector in the Netherlands is characterized as *multicentric cooperative*, meaning the interactions between the actors and the negotiating agreements are its key elements. The institutional transition led to a re-arrangement of the organization and the operation of the administrative bodies (water boards, municipalities and provinces) at the institutional setting level. Sustaining a multicentric cooperative institutional landscape, the administrative bodies adjusted their functions to accomplish the new roles and new tasks. The organizational form of the administrative bodies after the decentralization is in line with the institutional settings linked to the multicentric cooperative hybrid as described in the conceptual model (Paragraph 4.1, Table 1// See Appendix Table 2 and Figure 2).

4.2.3 What are the impacts of the institutional transition in the water management sector in the Netherlands?

After the institutional transition in the water management sector in the Netherlands, the “sour and sweet grapes” harvested focusing on the policy design process are the following:

- cooperation between the different administrative bodies involved in water policy design was stimulated, was continuous and fruitful
- institutional landscape supported learning within institutions and steering of the idea “give space to the river”
- institutional landscape is capable to accommodate a policy design process and flexible in establishing temporary administrative “limps” to deal with new tasks and new demands
- a consensus institutional structure such as the multicentric cooperative hybrid the water sector has, asks for more interaction hence for more time to proceed towards a policy design
- decentralization indirectly prolonged the negotiation time hence the policy design time due to the establishment of multiple policy arenas and the sequential negotiations that took place in inter-, intra-organizational level as well as local, regional and at the end national arena
- a prolonged policy design process indirectly brought about opposition from citizens at the tail end of the process who claimed that “high waters” belong to the past.

On the one hand, the change of the institutional structure of the water management sector supported learning within institutions and stimulated the familiarity of a broad public with the

² The Water Boards are considered as over-sized due to the increased number of personnel (engineers, water specialists, administrators, support staff etc.) that they had as a result of the merging of smaller water boards into centralized ones.

new idea of “giving space back to the river”³. Additionally, the existing institutional settings are capable to organize and accommodate the policy design process and the cooperation between them is fruitful. This eases the design process and does not cause opposition. In face of new tasks and new policy rounds, new administrative bodies are established so as to deal with the new policy design rounds (e.g. the Project Organization Room for the Rivers).

The established institutional landscape and its function extended the design process in such a way that actors showed resistance and opposition at the tail end of the process since they questioned the demand of high safety standards along the river on the other hand. The momentum created by the near-flood in 1993 initiated the process⁴ but the relatively low risks experienced by citizens and managers since then combined with an extensive self-repeated policy design process brought them to the state to question the demand of a new policy to be implemented. Apart from those impacts, new ideas were screened out of the process since the dominant pre-selected guideline of “space to the rivers” was supported by critical actors.

More specifically, the delay is partly caused by the characteristics of the institutional structure. The multicentric cooperative institutional structure demands more information so as to warrant effectiveness and robustness of the policy alternatives; whereas the mode of interaction between the existing institutional settings observed is negotiation agreements. The consensus institutional structure asks for more and more interaction and negotiation between the various centers that actually lengthens the process.

Decentralization prolonged the time of the policy design process even though it was one of the promises to improve the effectiveness of institutional operation (De Jong, 1999, p.190-191). The more supervision and consultation that takes place, the more time is needed in all the levels of authorities therefore the more extensive the process becomes in time. The existence of different boards in the inter-organizational level (Interprovincial Platform, Association of Municipalities and Union of Water Boards) and the negotiations that take place within them, aims at creating a consensus build-up from the lower levels of administration to the higher (national) level. Even though this consensus build-up aims at shortening the throughput negotiations time, it does not always achieve it. This results again in delaying the process.

5. Conclusions and recommendations

The institutional structure of the water management sector in the Netherlands is characterized as multicentric cooperative, meaning that the interactions between the actors and the negotiating agreements are its key elements. Having such a decentralized and power-diffuse institutional structure actually diminishes opposition from citizens -while conditions but does not settle the openness in the process -because the citizens constitute the heart of the structure and they are present in every node of its multicentric network. But operating in such power-diffuse structure that asks for continuous negotiations requires a great amount of time for a process to be completed. This is the dilemma between having a decentralized institutional space where

³ The main idea of “giving space back to the river” concerns the provision of more space to the river banks by ensuring that the riparian areas are available to accommodate water in case of high-waters in the river. The riparian areas are used for recreation and/or as nature restoration areas when high-waters are not the case. In a country so densely populated like the Netherlands, space is a valuable and difficult to capitalize. For example, demolition projects of entire neighborhoods were recommended as alternatives (e.g. case of Lent close to Arnhem) so as to give space back to the river.

⁴ The Room for the Rivers Policy design round was initiated by the Committee Boertien I advisory round (1992 until the spring of 1993). After the Committee Boertien delivered its advice to the Ministry of V&W, the high water in the Rhine and Meuse at the end of 1993 created a sense of urgency for action on flood protection. The Committee Boertien II was established after the high waters of 1993 (in February 1994) and delivered its advice in 1994 to the Ministry of V&W concerning the river Maas. Research conducted in the national research arena concerning the “Landscape planning for the Rhine” (1996) was also an input to this policy design round. The first policy design round of the national policy design arena is finalized with the design of The Room for the Rivers in 1996 that is one of the fundamental pylons of the national flood defence policy (see also Silva and Kok, 1996). Given the scope of the present paper, it is not wise to go through all the policy design rounds from 1993 to 2006 so as to corroborate the statement that it took almost 13 years for the implementation of the “give space back to the river” idea by the decision on the Room for the Rhine Branches by the Ministry of V&W early on 2006.

processes are time-consuming (due to lengthy and complex negotiations/decision making processes) but enjoy the support of citizens and having a more centralized institutional space where processes are short in time but at the same time are confronted with opposition from citizens whose perceptions and interests are overlooked.

Another concluding remark concerns the institutional fragmentation of the water management sector in the Netherlands. The institutional fragmentation is seen as an Achilles heel since recommended policy options are not consistently supported by all the administrative bodies. Construction projects of spatial planners contradict with flood protection projects employed by water managers.

The extended policy design process apart from tail end opposition from the public showed symptoms of a path-dependent pathology: support of a dominant policy idea irrespectively of change in conditions on societal context. This rigidity and closedness regarding the unquestionable dominance of the initial idea to “give more space to the river” was supported by the fact that the same actors were invited over and over again in different policy arenas (RIZA, WL|Delft Hydraulics and the Ministry of V&W are the key actors in the majority of the arenas).

To overcome these problems, it is recommended for public policy designers and process facilitators to:

- *Keep up the cooperative atmosphere:* Cooperation between the different administrative bodies (of the regional, provincial, local and national level) is continuous and fruitful. This is a remarkable situation that policy designers should not only conserve but also utilize in order to shorten policy design process’ time.
- *Avoid overlapping of issues between the agendas of the different interorganizational discussion boards:* A careful design of the agendas may save some time and effort of the policy designers. Issues that have been resolved in other discussion boards need not to be present in successor rounds if the same actors are present. For example, if an issue has been discussed in the Union of Water Boards and an agreement has been achieved, in the intra-organizational level where delegates of the Union of the Water Boards are present avoid re-discussing it;
- *Maintain openness and diversity of ideas by re-dealing the cards of the game:* The same roles are assigned to the same peoples over and over again regarding the policy advice and the research conducted in flood defence management. The existing knowledge and expertise of some actors (RIZA, WL|Delft Hydraulics, RWS) can be utilized in a different way. For instance, they flood-management ‘gurus’ can be the coordinators of research programs that are conducted by other working groups. By this way, new people are involved bringing new ideas into the water management society while the ‘gurus’ of the field can reassure that fragmentation of the research programs is mitigated and synthesis of the research findings is realized.

Having an insight of the institutional space and the institutional transition as realized in the water management sector in the Netherlands, what drives and what constraints institutional transitions is a topic for further research. Researching in depth the potential drivers of institutional transitions and the interdependencies of institutional transition to a broader societal transition, diagnosing and monitoring such changes may be feasible.

6. Acknowledgements

This work is part of a Master Thesis Project (*Frantzeskaki, N., (2005), Evaluation of the Dutch Flood Defence Policy Design Process – Casting an eye on the Rhine River (Studied period 1993-2005), Faculty of Technology, Policy and Management, Delft University of Technology, The Netherlands*) and its continuation is funded by the KSI Research Program on Societal Transitions.

7. References

- De Jong, W.M., (1999), Institutional transplantation, How to adopt good transport infrastructure decision-making ideas from other countries?, Eburon Publishers, The Netherlands.
- Lane, J.E., (1997), Public sector reform, Rationale, trends and problems, Sage publications.
- Ministry of Transport, Public Works and Water Management, (2000a), A different approach to water, Water management policy in the 21st century.
- NHV-special 3, (1998), Water in the Netherlands, Editorial Committee: P.Huisman, W.Cramer, G.van Ee, J.C.Hooghart, H.Salz, F.C.Zuidema, Delft, The Netherlands.
- NHV-special 6, (2004), Water in the Netherlands, Managing checks and balances, (Eds.) P.Huisman, Delft, The Netherlands.
- Jaspers, F.G.W., (2003), Institutional arrangements for integrated river basin management, Water Policy, Vol.5, pp.77–90.
- Scharpf, F.W., (1997), Games real actors play, Actor-centered institutionalism in policy research, Westview Press.
- Silva, W. and M. Kok, (1996), Landscape planning of the river Rhine in The Netherlands. Towards a balance in river management. (in Dutch). Ministry of Transport, Public Works and Water management, Rijkswaterstaat, RIZA, Report, May 1996.
(Silva, W. and Kok, M., (1996), Itegrale Verkenning Inrichting Rijntakken, Hoofrapport: Een weegschaal voor rivierbeheer, Ministry van Verkeer en Waterstaat, IVR-rapport 1, Arnhem, RIZA)
- The Water Handbook 2004-2005, (2004), Water in the Netherlands, Facts and Figures, 2004-2005, Joint publication of the Government, the Association of Provincial Authorities, the Association of Water Boards and the Association of Netherlands Municipalities, 'The Netherlands lives with Water' campaign team.
- Uijterlinde, R.W., Janssen, A.P.A.M., and Figuères C.M., (2003), Success factors in self financing local water management, A contribution to the Third World Water Forum in Japan 2003, Edited by R.W. Uijterlinde, A.P.A.M. Janssen, C.M. Figuères, Contributors: R.J.J. Lazaroms, A.M.H.Th. Koemans, R.W. Uijterlinde, M.P. van Dijk, B.W. Raven, J. Bron, E. Aguiñaga, E. Karar, F. Fehér, Netherlands Water Partners, IHE Delft, Union of Waterboards.
- Water Assessment in the Netherlands, Website www.watertoets.net, Last visited: 18/07/2005.
- Website of Union of Water Boards, www.uvw.nl, Last visited: 18/06/2005
- Wiering, M.A., and Driessen, P.P.J., (2001), Beyond the art of diking: interactive policy on river management in The Netherlands, Water Policy, Vol. 3, pp.283–296.

Appendix

Box 1: Institutional structures and settings.

There are four different types of **institutional structures** dominate according to De Jong (1999, p.90-99): monopoloid, multicentric, cooperative and competitive institutional structures. The definitions and the characteristics of these structures will be elaborated here.

Characteristics: Type of institutional structure	Power distribution	Interaction & interpretation processes	Demand on research and development
Monopoloid	One or few actors dominate	-Dominant actor gain control over processes -Predictable patterns of interaction and interpretation	Little incentives for search of new information
Multicentric	Diffuse power centers	- Processes develop with the interplay of all actors - Spontaneous, unpredictable course of interaction and interpretation processes	Considerable built -in incentives for an intensive search for information
Cooperative	Important actors as moving vehicles determining the development of institutions	- Robust, reliable and repeatable processes - Rigid types that tend to exclude actors external to their system - Mutual trust among actors - Interaction is regulated	
Competitive	All actors may contribute to institution development	- Ephemeral and specific institutional structure - Processes reluctant to change due to continuous interplay of actors	

Each **institutional setting** shows a preference in specific modes of interaction that are acceptable or fit better to its institutional rules and functions. The selection of different modes of interaction also relies on the demand and on the institutional capacity for problems solving and conflict resolutions. According to Scharpf (1997, p.46-47) there are four types of institutional settings:

Characteristics: Institutional setting	Characteristics of interaction	Modes of interaction
Anarchic fields and minimal institutions	- interaction free from rules	unilateral actions and the negotiated agreement
Networks	- constellation of dependencies and interconnections among actors - power neutralized interaction	unilateral actions and the negotiated agreement
Regime	- purposeful interaction in respect of certain interest positions so as to pursue substantive goals	adherence of interests guides interaction and interaction modes
Joint-decision systems	- symbiotically interdependent actors - potential to be flexible in crisis situations	unanimous agreement
Associations and representative assemblies	- collective actor groups with strong downward accountability	unilateral actions, the negotiated agreement and the majority vote
Hierarchical organizations	- elimination of freedom of choice due to exercise of unilateral power	all modes of interaction possible

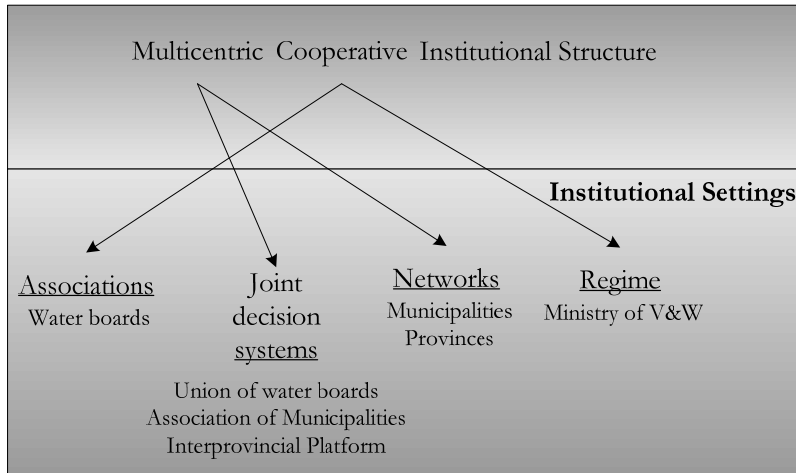


Figure 2: Institutional structure & settings of the water management sector in the Netherlands.

Table 2: Institutional settings of the water management sector in the Netherlands.

		Type of institutional setting	Due to:
Administrative body	Ministry of V&W⁵	Regime	- purposefully specified set of actors that have the mission to pursue specific substantive goals (safety, accessibility and quality of life) and their interactions follow a patterned procedure - regime's upheaval depends on the interest of people participating to it to upgrade it
	Province & Municipality	Networks	- both of these two administrative bodies are dependent on the Ministry of V&W to get approvals for their projects and plans, showing the interdependencies between them - these power linkages between them "create highly selective opportunity structures within which political exchange take place"
	Water Boards	Associations	- characterized bottom-up structure and function serving the interests of the local community - the evaluation criteria are in line with the preferences and the priorities of local people that the water boards are accountable to
	Union of Waterboards & Association of Municipalities & Interprovincial Platform	Joint-decision systems	- striving for a consensus-building of all parties involved, these interorganizational bodies are ideal joint-decision systems

⁵ Directorate General for Water, Directorate General for Public Works and Water Management as well as RIZA are also considered as regimes since they are executive and advisory branches of the Ministry of V&W therefore they are not presented in the Table.