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COLLABORATIVE WATER GOVERNANCE IN THAILAND: MUCH ADO ABOUT NOTHING?

Dissertation

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LIST OF ABBREVIATIONS

Abbreviation	Full term
DWR	Department of Water Resources
IRBM	Integrated river basin management
IWUG	Integrated water user group
LGO	Local government organization
LRCMS	The Lower Ping River Basin Coordination and Management Section
MIP	Mae Tang Irrigation Project
MNRE	Ministry of Natural Resources and Environment
MOAC	Ministry of Agriculture and Co-operatives
MOST	Ministry of Science and Technology
MOI	Ministry of Interior
MWUA	The Mae Tang Water Users Association
NAO	Network administrative organization
NLA	National Legislative Assembly
NWRC	National Water Resources Committee
OPDC	Office of the Public Sector Development Commission
OSC	Office of the Council of State
PAO	Provincial Administrative Organization
PONRE	Provincial Office of Natural Resources and Environment
RBC	River basin committee
RBO	River basin organization
RCMS	River Basin Coordination and Management Section
RID	Royal Irrigation Department
TAO	*Tambon* (Sub-District) Administrative Organization
WRO	Water Resources Regional Office
URCMS	The Upper Ping River Basin Coordination and Management Section

1. INTRODUCTION

Human societies are dependent on natural resources such as forest, land, and water for their livelihoods. As the population continues to grow, demand for natural resources also increases, thus putting growing pressure on providing these necessities. Therefore, "*the management of increasingly scarce natural resources is perhaps the most important governance challenge facing humanity today*" (RAGHUNANDAN, 2010, p. 57). During the past decades, collaboration between the public and non-public sector has been accepted widely as a means to take on this challenge (FISHER, WAKJIRA, WELDESEMAET, & ASHENAFI, 2014; KOONTZ & THOMAS, 2006; WONDOLLECK & YAFFEE, 2000). This study explores a collaborative effort for managing water resources, i.e. the river basin committee (RBC), which is implemented currently in Thailand.

1.1 Research background

Thailand became a democratic country in 1932, after abolishing absolute monarchy. However, democracy in the country has been far from fully realized, and could be described as only a 'minimal democracy' (FERRARA, 2011, p. 513). Furthermore, the Thai administration continues to be characterized by strong centralization, which was first introduced in the late 19th century to secure macroeconomic stability and consolidate territorial control over the Thai vassal states (MANEETHORN, 2008; WONGPREDEE & SUDHIPONGPRACHA, 2014). This centralization approach has deep impacts not only on the country's administrative structure, but also on natural resource management policies and practices. As reviewed by SANTASOMBAT (2000), the Thai state has monopolized natural resource management whereby rules, laws and policies as well as management and control measures are being applied grossly throughout the country, with no consideration given to variations such as resource conditions and local practices.

Nevertheless, in 1997, promulgation of the so-called 'People's Constitution' brought about significant changes in the Thai administrative system. Fundamentally, it opened up the administrative system to participation from the non-public sector; in other words, collaborative governance (e.g. CARLSON, 2007 cited in EMERSON & MURCHIE, 2010) became a guiding principle for the government and its public agencies in formulating policies and carrying out public works. Major laws and national policies have been amended or introduced to support this movement. For example, the State Administration

Act of 1991 was amended in 2002, stipulating that in their operations, public agencies must allow, among other things, for participation and information disclosure; while the current public sector development plan (2013-2018) includes collaborative governance as one of the strategies to improve the Thai public sector (OPDC, 2013b). In addition, the 1997 Constitution also paved the way for the improvement of local government (e.g. more autonomy and direct election of the mayor and council members), and the decentralization project, which started in 1999.

With non-public sector participation becoming a standard requirement for public sector operations, changes started to take place in ways of natural resource management. For example, 7,761 community forests have been established by the Royal Forest Department (RFD) and local communities concerned since 1999 (RFD, online; as of 2014), when the latter were involved in forest conservation and allowing the use of non-timber products from community forests[1].

Over the last decade, collaboration with the non-public sector in water resource management also has been promoted. In 2004, the Royal Irrigation Department (RID) adopted non-public sector participation in its irrigation management and operation (KUMNERDPET & SINCLAIR, 2011). A Joint Management Committee for Irrigation (JMC), comprising representatives of irrigation water user groups, an irrigation office, local government organizations (LGOs) and other public agencies concerned, was established in this scheme for a given irrigation system with mandates including planning for its modernization and maintenance and irrigation water allocation (KUMNERDPET & SINCLAIR, 2011; OFFICE OF PUBLIC PARTICIPATORY PROMOTION, 2009).

Attempts have been made in the wider context of Thailand's water resource sector to manage water resources using a collaborative approach. Therefore, the government implemented the river basin committee (RBC) framework. First introduced in 2002, and subsequently revised in 2007, the framework is basically about water resource management by a RBC using a river basin as a managerial unit. Like the JMC mentioned above, non-public sector participation also is emphasized in the RBC framework. The Office of the Prime Minister's Regulation on National Water Resources Management of 2007 [The 2007

[1] Due to a long conflict between the RFD and local communities over forest resource management and use, skepticism remains regarding the RFD's sincerity in its move toward the community forest project, and whether 'community forest' is used by the RFD as a new technique for managing forest resources (e.g. ONPROM, 2011).

Regulation], which has a legal basis underlying the current RBC framework, expressly indicates that representatives from water user organizations and LGOs, as well as local experts, be part of the RBC members together with members from the public agencies concerned. The RBC is charged with mandates such as water resource management planning, water allocation, and conflict mediation (see Box 4.2 for details).

Given the long legacy of strong centralization and minimal recognition of local communities in natural resource management in Thailand, the idea of having water user organization representatives take part in making decisions on important issues, like water resource management plans and water allocation prescribed in the RBC framework, is innovative and promising. The general direction of the RBC framework and its implementation, as outlined by the government, also suggests that the framework would not be approached in an ad hoc manner, i.e. instead of pilot projects being implemented in selected areas and possibly discarded later, they would be meant to stay and become new institutions for water resource management. For example, the 2007 Regulation expressly indicates establishment of the RBCs for all 25 main river basins located in the country, with a four-year general term of service, while the Department of Water Resources (DWR), as a public agency, is assigned to support the RBCs.

From the Thai administration's perspective, the RBC framework can be seen as part of a broader effort to open up for non-public sector participation and move toward collaborative governance, which can be viewed as 'collaborative water governance' (BAKKER & COHEN, 2011). Furthermore, the framework seen from the water resource sector's perspective also reflects an international trend in integrated river basin management (IRBM), where water resources are managed at the river basin level with stakeholder participation (JASPERS, 2003). Water resource management in this manner, albeit with limited non-public sector participation, was suggested in the water bill during the early 1990s (THE FACULTY OF LAW, THAMMASAT UNIVERSITY, 1993)[2], but it has never been implemented. Nevertheless, the IRBM could be realized potentially through the RBC framework.

Apparently, the RBC framework is a recent major development in Thailand regarding its administration and water resource sector. More importantly, it could serve as an effective

[2] A river basin commission may be established in this water bill for a river basin, and charged with mandates such as planning for water use schemes, issuing water permits, and setting up water use priority. However, three of 21 seats in the commission may be allocated to representatives of water user organizations or non-governmental organizations (THE FACULTY OF LAW, THAMMASAT UNIVERSITY 1993, pp. 95-96).

mechanism for managing increasingly scarce water resources in the country, where water use conflicts already occur (e.g. CHAROENMUANG, 1994) and may intensify in the future, especially in areas not covered by the irrigations systems[3].

1.2 Research questions and objectives

The RBC framework is relatively new in the Thai context. The RBC pilot projects were first implemented in 1999 (e.g. PATTANEE, 2003a), three years before the RBC framework was introduced officially in 2002. The current RBC framework only started in 2007. At the same time, it could be envisioned to achieve both normative and practical aspects of non-public sector participation (REED, 2008). The former is reflected in the administrative reform mentioned earlier, where collaborative governance is promoted; while the latter is indicated by the mandates that the RBC is expected to achieve; for instance, a water resource management plan, water use priority and water allocation measures (see Box 4.2)[4]. Against these backdrops, this study aims to explore the RBC framework with the guiding research questions of how it is implemented on the ground and what outcomes does it generate.

To answer the two research questions, this study pursues three objectives as follows:

1) To explore the implementation process of the river basin committee framework[5]. The 2007 Regulation only prescribes establishment of the RBC for each main river basin, with the requirement that representatives of water user organizations, LGOs and local experts are to be included. No further details in this regard are provided. Thus, this study explores how the RBC framework is translated and carried out on the ground. Specifically, it examines how the river basin committee was formed and managed.

2) To analyze collaborative processes and participation in the RBC. It is apparent that the RBC framework attempts to include the non-public sector. Yet, collaborative governance goes beyond a mere inclusion of non-public sector representatives into the RBC, and involves various other aspects; for instance, face-to-face dialogue and shared

[3] The Eleventh National Economic and Social Development Plan (2012-2016; p.100)

[4] For some authors, a collaborative approach should be viewed as a means to an end (e.g. IMPERIAL, 2005; WONDOLLECK & YAFFEE, 2000); and valued on a basis that it yields better results compared to other approaches (IMPERIAL 2005, p. 311).

[5] In the context where a collaborative approach is well established and extensively used (e.g. in the U.S.A), a call has been made for research to focus on its outcomes rather than its process (KOONTZ & THOMAS, 2006).

decision making power (e.g. ANSELL & GASH, 2008; MOSTERT, 2006). Therefore, this study also investigates collaborative processes and participation taking place in the RBC.

3) To examine the functions of the RBC and its outcomes. The RBC is envisioned to be a new mechanism for managing water resources, and charged with various mandates. It is thus imperative to study whether the RBC functions and delivers those outcomes.

1.3 Research outcomes and contributions

This study set out to examine the implementation process and outcomes of the RBC framework. The empirical results derived provide insights into the way by which the RBC framework was translated into practice and its effectiveness as a new mechanism for water resource management in the country.

Regarding the implementation process, this study provides a comprehensive account on the actual arrangement of the RBC, i.e. the RBC structure and steps taken to form its governing bodies. This would help in a better understanding of how the RBC framework was interpreted and implemented in the Thai context (and for that matter, in the Thai administrative context); and, whether or how the non-public sector was included into the scheme. As this study looked into the management, collaborative processes and participation in the RBC setup, it exposed the extent to which the parties are involved, especially the non-public sector representatives, who played a role in this arrangement; and, its underlying factors.

The outcomes generated by the RBC, as compared to its mandates, also are reported in this study. The result in this regard would help to shed some light on the effectiveness of the RBC in managing water resources. In addition, based on empirical results, this study offers policy recommendations for improving the RBC framework, with due consideration given to the Thai administrative context in which it is embedded.

1.4 Structure of the thesis

This thesis is arranged into seven chapters that cover the study on the RBC framework outlined above. After this introductory chapter, Chapter 2 discusses concepts and issues on collaborative governance and river basin governance, and presents a brief overview of the Thai administrative system in order to provide theoretical and contextual backgrounds for this study. Chapter 3 then deals with a conceptual background and the research

methodology applied to collect and analyze data. It also explains the Ping RBC framework, which was used as an illustrative case in this research.

Empirical results are presented in Chapter 4 and Chapter 5. Chapter 4 is concerned with recent water policies in Thailand, and options for the RBC framework arrangement, as found in the water bill. This chapter also reports on water governance practices existing in the study area, and the roles of LGOs in this regard. In addition, it discusses in detail the RBC framework that was introduced in 2002, and the current one adopted in 2007. This part sets the scene for Chapter 5, where empirical evidence observed from the Ping RBC arrangement is presented, with reference to a theoretical background previously described in Chapter 2. Thus, Chapter 5 covers the issues of formation, management, collaborative processes and participation as well as functions and outcomes of the Ping RBC and its governing bodies.

Chapter 6 provides discussion of the empirical results derived in relation to the Thai administrative system. This discussion offers an explanation as to why the Ping RBC arrangement ended with the result presented in Chapter 5. Finally, Chapter 7 draws a conclusion to the RBC framework examined, and suggests policy recommendations for future improvement of this framework

2. COLLABORATIVE GOVERNANCE: A REVIEW OF CONCEPTS AND ISSUES

The Thai government has initiated and implemented a collaborative effort for water governance for over a decade by establishing river basin committees. In theory, this exhibits a change from 'government to governance' (BOWORNWATHNA, 2001, p. 422), where both public agencies and organizations outside of the public sector are involved in conducting public work. Thus, this chapter reviews the concepts and issues concerning collaborative governance by drawing mainly from public administration discipline. As the collaborative effort in this study is concerned with the river basin committee, issues regarding river basin governance are also discussed. Furthermore, this chapter extends to include the topic of Thai administrative reform, which has significant implications for implementing the collaborative effort in question.

2.1 Governance

The term 'governance' has gained its currency over the past 30 years and appeared in various academic disciplines such as development studies, economics, international relations, political science, public administration, anthropology and geography (BEVIR, 2011; CHHOTRY & STOKER, 2009; ROBICHAU, 2011). The governance concept, briefly reviewed in this section, is drawn from public administration discipline in order to illustrate the changing role of government in governing processes.

According to BEVIR (2009), the contemporary usage of the term 'governance' can be distinguished into two meanings. The first one associates governance with notion of the changing role of the state by following the public sector reform of the 1980s and 1990s. Governance is then referred to as "*any pattern of rule that arises either when the state is dependent upon others or the state plays little or no role*" (p.3). In the other meaning, the term 'governance' simply refers to 'all patterns of rule' that existed before the public sector reform just mentioned (p.3). According to LYNN JR. (2010, p. 3), the term 'governance' in the second meaning is perceived as a generic term for 'ordered rule', in which governance refers to "*how actors are organized and managed in order to accomplish purposes on which they agree or they have in common,*" while the first meaning can be referred to as 'new governance'. This 'new governance' consists of 'governance *beyond* government' and/or 'governance *not* government' (LYNN JR., 2010, pp. 2-3; emphasis is original):

- *"Governance "*beyond *government", meaning* in addition to *government, that is, governance as an emerging model of societal direction in which guidance of resource allocation and service delivery is provided by civil society institutions with or without the authorization and influence of government* […]
- *Governance "*not *government", meaning contexts wherein government is being or has been* replaced *by decentralized networks, partnerships, and markets (i.e., customer-driven governance) not subject to the imposed authority of government*."

Indeed, a popular academic use of the term 'governance' generally refers to the concept of 'new governance', as presented above (LYNN JR., 2010, p. 3). STOKER (1998, p. 17) is in line with this view when explaining that governance indicates a governing style where the boundaries 'between and within public and private sectors' are no longer clear-cut, and "*the essence of governance is its focus on governing mechanisms which do not rest on recourse to the authority and sanctions of government*." The governing mechanisms have moved from the authority of government to rely more on markets and networks[6]. This has resulted from the promotion of markets and corporate management, and later networks or partnerships in the public sector reform movement since the 1980s (BEVIR, 2009). It is viewed that partnership and joined-up governance can promote social inclusion, civil society and efficiency (BEVIR, 2009).

With a strong emphasis on networks or partnerships, one prominent definition of the term 'governance' thus refers to "*self-organizing, interorganizational networks characterized by interdependence, resource exchange, rules of the game and significant autonomy from the state*" (RHODES, 1997, p. 15). This also is known as the 'governance without government' concept (RHODES, 1996; 1997). STOKER (1998, p. 23) states that governance networks not only influence government policy, but also take over 'the business of government.' From this point of view, government significantly loses its authority to govern, and government organizations only remain as members, with the same degree of dependency as others of the respective networks involved (PETERS & PIERRE, 1998).

However, some scholars maintain that government still plays a major role in governing. PIERRE and PETERS (2000; 2005) stress that the most important role for government in governance is to provide a set of goals for governing, which seems to be difficult for both

[6] In other words, a mode of governance (LOWNDES & SKELCHER, 1998) or form of organizing (PROVAN & LEMAIRE, 2012), has shifted from hierarchy (the authority of government) to market and network.

the market and network. They explain further that apart from goal setting, the government also plays a role in other activities of governance, namely, coherence (to make the goals consistent and coordinated); steering (to find ways to achieve the goals); and accountability (means to hold those involved accountable for their actions). Of these four activities, it is argued that the market and network might only be able to perform steering better than the government (PIERRE & PETERS, 2005). In any case, however, the state, and by extension, the government and its agencies "*are not at the mercy of non-state actors and can govern. They may not always govern alone, but they can govern*" (PETERS & PIERRE, 2006, p. 214). Thus, from what BELL and HINDMOOR (2009, p. 2) refer to as a 'state-centric relational' perspective to governance, governance is defined simply as "*the tools, strategies and relationships used by government to help govern.*"

2.2 Collaborative governance

The term 'collaboration' has been used widely in public management. HUXHAM (2000, p. 339) observed more than a decade ago that several terms were "*used to describe governance structures that involve cross-organizational working,*" such as 'partnership', 'collaboration' and 'network'. Recently, KOLIBA, MEEK, and ZIA (2011, p. 56) indicated that 'network' is a frequently used term for 'interorganizational arrangements', and for some scholars networks are similar to 'collaborative arrangements' or 'partnerships'. In this study, the author follows HUXHAM's suggestion that the terms 'collaboration' and 'collaborative governance' "*are taken to include all forms of, and labels for, governance that involves people in working relationships with those in other organizations*" (HUXHAM 2000, p. 339)[7]. As such, terms like 'collaboration' and 'network' are more or less viewed as the same here, in the sense that they all involve 'cross-organizational working.'

Variations in scopes and approaches to collaborative governance exist in public management, which for example, refers to a policy making process where all relevant stakeholders participate in face-to-face discussion (BEVIR, 2009; see also VAN BUUREN & EDELENBOS, 2007), or a particular form of public-private collaboration where both public and private partners possess a degree of discretion (DONAHUE & ZECKHAUSER, 2006). BINGHAM (2011, pp. 387-388) provides a recent account on collaborative governance, suggesting that it includes four aspects:

[7] The term 'collaborative governance' has also been used in the field of business administration, for example by RASCHE (2010).

1) ‘Collaboration with the broadest definition of partners within and outside government’, for example national, regional and local government agencies, non-profit organizations, and businesses.

2) ‘Collaboration across the broadest scope of government work in the policy process,’ including establishing laws and rules as well as managing and implementing them.

3) Collaboration *“through any method, model, or process that is deliberative and consensual as distinguished from adversarial or adjudicative”* (p. 387), e.g. dialogue, collaborative public management, and consensual-building.

4) Collaboration can be done both ‘in-person’ and online.

According to BINGHAM (2011, pp. 387-388), collaborative governance “*may occur at any stage of the policy process*” defined as “*any action in developing, implementing, or enforcing policy*.” To view collaborative governance along the policy process, BINGHAM (2011, p. 388) suggests a metaphor of the flowing stream, where a policy is developed ‘through more legislative or quasi-legislative activity’ upstream, while ‘implementing, managing, and evaluating policy’ in midstream, and ‘enforcing policy through quasi-juridical or juridical action’ downstream. There are also different types of collaboration and participants involved in different parts of the flowing stream: ‘dialogue and deliberation’ with broad public participation are pursued upstream; ‘collaborative public management and public policy dispute resolution’ may occur in midstream with ‘targeted stakeholder groups’; and downstream, ‘conflict resolution’ is involved with ‘fewer participants’, who normally have *“a legally cognizable stake in the outcome and shared decision-making authority*” (BINGHAM, 2011, p. 388).

Taking into account the nature of the collaborative water governance effort in this study (see Section 2.3 and Chapter 4.4), it can be placed in the midstream of BINGHAM (2011)’s policy process, as it is concerned with implementation of the collaborative effort. Regarding the collaboration types, the collaborative effort concerned can be seen to involve ‘collaborative public management’ rather than ‘public policy dispute resolution’, which may as well take place in the midstream. This is because the implementation of this effort has focused so far on forming collaboration in the form of the river basin committee, where a ‘public policy dispute resolution process’ has not played a role as yet.

2.2.1 Collaborative public management

Generally, collaborative public management or network governance can be viewed as 'collaboration with and among organizations' in contrast to public participation, public involvement, and civic engagement, which is perceived as 'collaboration with the public' (BINGHAM, 2011, p. 387).

According to BINGHAM, O'LEARY, and CARLSON (2008, p. 3), collaborative public management is defined as "*a concept that describes the process of facilitating and operating in multiorganizational arrangements to solve problems that cannot be solved or easily solved by single organizations. Collaborative means to co-labor, to achieve common goals, often working across boundaries and in multisector and multiactor relationships. Collaboration is based on the value of reciprocity*." In addition, the authors also emphasize that 'the role of the public and citizens' must be included into this process as well (BINGHAM et al., 2008, p. 3).

There are variations in collaboration ascribed under collaborative public management; for example, collaboration within or across organizations, collaboration within and across sectors, and mandated, emergent or voluntary collaboration (BINGHAM, 2011). Various terms, such as cross-sector collaborations, collaborative networks and organizational networks, are also attributed to collaborative public management. Several issues attached to it have been a focus of studies, for instance, a process of collaboration, legitimacy, management or coordination, network control, and performance (e.g. ANSELL & GASH, 2008; BRYSON & CROSSBY, 2008; HERRANZ JR., 2008, 2010a, 2010b; KENIS & PROVAN, 2006, 2009; MCGUIRE, 2011; PROVAN & KENIS, 2008; PROVAN & MILWARD, 2001; PROVAN, KENIS, & HUMAN, 2008; THOMPSON & PERRY, 2006; THOMPSON, PERRY, & MILLER, 2006, 2009). In the following section, three issues relating to collaborative public management, i.e. a collaborative process and its management as well as legal infrastructure for collaboration, are explored to help in understanding the collaborative effort for the water governance under study.

2.2.2 A process of collaboration

AGRANOFF (2006, p. 56) states that "*it is time to go beyond heralding the importance of networks as a form of collaborative public management and look inside their operations*." Indeed, scholars have developed models to understand the process of collaboration better. THOMPSON and PERRY (2006) attempt to look into 'the black box' of collaboration

processes by developing a multidimensional model consisting of five dimensions, from which the authors suggest, "*public managers must know these five dimensions and manage them intentionally in order to collaborate effectively*" (p. 21). These five dimensions include: 1) the governance dimension, involving joint decision making processes on the rules and structure governing behavior, and relationships of partners and their collaborative activities and goals; 2) the administration dimension, involving administrative structures 'to move from governance to action' (p. 25); 3) the autonomy dimension, indicating the tension between the interest of individual partners and that of the collaborations; 4) the mutuality dimension, suggesting mutual benefits rooted in interdependence and shared by the partners; and 5) the trust and reciprocity dimension, involving reciprocal exchanges and trust among the partners.

An empirical test of this model proves that the five dimensions are useful in measuring collaboration (THOMPSON et al., 2009). Certain indicators associated with each dimension also provide insights that are useful for collaboration in practice; for example, 'clarity of roles and responsibilities', 'effective collaboration meetings', 'goal clarity', and 'well-coordinated tasks', which are valued in terms of 'the structural elements of implementation' under the administration dimension (THOMPSON et al., 2009, p. 42). Also, the study indicates that in the autonomy dimension, higher tension faced by the partners regarding their own interest and that of the collaborations will hinder collaboration (THOMPSON et al., 2009, p. 43).

Based on review of the case studies of collaborative governance, ANSELL and GASH (2008) also propose a collaborative governance model[8], which puts the collaborative process at the core, with starting conditions [e.g. power/resource imbalance and prehistory of antagonism and cooperation], institutional design [e.g. access to collaboration and its exclusiveness], and leadership considered as either 'critical contribution to or context for the collaborative process'. According to the authors, the collaborative process is cyclical or iterative, and involves five factors: 1) face-to-face dialogue between stakeholders, 2) trust building, 3) commitment to the process associated with trust among stakeholders and confidence in 'the procedure of deliberation and negotiation', a sense of 'ownership of the process', and

[8] Although the authors use the term 'collaborative governance', their explanation about the term makes clear that it can be considered as 'collaborative public management' following BINGHAM (2011, p. 387), especially when they state that 'public policies and issues' are the focus of collaborative governance, thereby distinguishing it from 'dispute resolution or mediation' which concerns 'strictly private conflicts' (ANSELL & GASH, 2008, p. 547).

interdependence, 4) shared understanding, regarding what can be achieved collectively, and agreements on 'a definition of the problem', or on knowledge required to solve problems, and 5) immediate outcomes gained from collaboration; also referred to as 'small-win', e.g. joint fact finding (ANSELL & GASH, 2008, pp. 557-561).

Models of collaborative processes, as presented above, are a useful guide for understanding the elements or factors that influence a process of collaboration in general. However, there are at least two issues that should be noted when considering collaboration in the public sector, as implied by RODRÍGUEZ, LANGLEY, BÉLAND, and DENIS (2007): collaboration is not always voluntary or emergent[9], and a mode of governance in this arrangement is not only confined to network, but also hierachy and market.

HERRANZ JR. (2009, p. 371) observes that the development of public networks are often viewed as based on 'the internal self-organizing logic of network members', i.e. voluntary collaboration, which is influenced partly by 'studies of business partnerships and strategic alliances'. However, the author explains further that "[…] *unlike for-profit networks, public networks are often characterized by additional legal, procedural, and political accountability relationships that constrain a public network's capacity to flexibly form, expand, contract, or disband*" (HERRANZ JR., 2009, p. 371). SPAN, LUIJKX, SCHOLS, and SCHALK (2012) also point out that local public networks are predominantly mandated, where participating organizations are either dependent on financial resources provided by the local government, or forced by laws to participate in its networks.

Following RODRÍGUEZ et al. (2007, pp. 152; 157-158), in a situation where collaboration is mandated, i.e. "*collaboration is imposed on separate organizations by a third party*", not only the clan-based mechanism (i.e. a network mode of governance), but also the bureaucratic or hierarchical and market-based mechanisms (i.e. hierarchy and market modes of governance, respectively) are needed, as the former can, for example, 'bring partners to the table and establish rules of engagement', and in the case of the latter, incentives may create 'a perception of interdependence'. Indeed, LOWNDES and SKELCHER (1998) found that all three modes of governance (hierarchy, market, and network) were employed in UK urban regeneration partnerships, but at different stages of their life cycle. For example, a network mode of governance was used during the pre-partnership collaboration ('networking between individuals/organizations'), while a hierarchy mode of

[9] O'TOOL JR. (2010) also makes a similar observation.

governance was employed during the creation and consolidation of the partnership (e.g. 'formalization of authority in the partnership board and associated staff') (LOWNDES & SKELCHER, 1998, p. 321).

Insights provided by AGRANOFF (2006) about public management networks comprising governmental and nongovernmental organizations (both for-profit and nonprofit) shed some light on the reality of collaborative public management at work. For one thing, public managers still work 'within the hierarchy' and their work is "*largely business as usual most of the time, dealing with internal POSDCORB*[10] *matters, along with increasing collaborative pressures*" (p. 58). The author also indicates that networks do not seem to replace 'public bureaucracies' (see also O'TOOL JR., 2010). Two caveats given by partners involved in the networks clearly support this point: 1) public institutions mostly make 'the ultimate call' regarding policy decisions, and they are also the ones implementing these policies, and 2) it is public officers who are 'the core or among the core actors in the networks', and *"are able to inject legislative, regulatory, and financial considerations right into the network mix, which hardly marginalizes them*" (AGRANOFF, 2006, p. 62).

2.2.3 Management of collaborative networks

According MCGUIRE (2011, p. 441), network management refers to "*the strategic activity meant to influence the interaction of the nodes (actors). The purposes of the interactions may include achieving the goals of the individual actors (and their 'home' organizations) while simultaneously achieving network-level results.*" Different management tasks required for network managers have been suggested by various scholars. For example, MILWARD and PROVAN (2006) indicate that accountability, legitimacy, conflict, design (governance structure), and commitment are the areas that need to be addressed by managers of and in the network ('individuals who represent their organizations within the network') (p.18). Specific managerial roles such as 'identifying possible partners', 'bringing stakeholders to table', and 'analyzing current operations' also have been recommended (GOLDSMITH & EGGERS, 2004 cited in HERRANZ JR., 2008, p. 6). However, the network governance structure outlined by PROVAN and KENIS (2008), indicates 'management of networks themselves', and deems it useful to inform the collaborative water governance effort under study in terms of governance form laid out in relevant

[10] POSDCORB stands for planning, organizing, staffing, directing, coordinating, reporting and budgeting.

regulations (Section 4.4) and water bills (Section 4.2), as well as the actual governance form implemented at the ground level (Section 5.2).

Focusing at the network level or whole network perspective, PROVAN and KENIS (2008) propose three forms of network governance, based on whether they are brokered and 'participant governed' or 'externally governed'. These three forms are (PROVAN & KENIS, 2008, pp. 233-236):

1) *Participant-governed network*, with no broker, as all participating organizations take part 'to govern the network'. It is 'a dense and highly decentralized form' and thus 'participant-governed'.

2) *Lead organization-governed network*, with one participating organization that takes a leading role. Thus, this form is 'highly centralized and brokered', but it is still considered as 'participant-governed'.

3) *Network administrative organization (NAO)*, with 'a separate administrative entity' [i.e. NAO] established to govern the network and its activities. This form is 'centralized' and brokered by an NAO that is not a member of a given network, which makes it 'externally governed'.

As described by PROVAN and KENIS (2008), different forms of network governance entail varied management tasks. For the participant-governed networks, participating organizations take part in all decisions and network activities in a given network, and their power in the network is relatively symmetrical regarding 'network level-decisions'. In contrast, a lead organization in lead organization-governed networks plays a central role in coordinating 'all major network-level activities and key decisions' in a given network, suggesting 'asymmetrical power'. It also performs tasks regarding administration and facilitation of the network as well as those concerning its costs and funds. For the NAO model, the tasks to govern the network are pertained to a NAO as described above. However, the authors explain that a NAO can be simply a single individual or formal organization, which can take the form of a nonprofit or for-profit government entity. When an NAO is in the form of a formal organization, a board structure is normally applied and represented by 'all or a subset of network members'. In this setup, the board is responsible for 'strategic-level network concerns', while the NAO leader deals with 'operational decisions'.

According to PROVAN and KENIS (2008), there are four 'critical contingencies' underlying whether the three forms of network governance are to be effective. These critical contingencies include trust, number of network participants, network goal consensus, and need for network level competencies. From a network level perspective, the authors explain that an issue about trust in this context concerns 'the distribution of trust' and the mutuality among network members. In this regard, adopting a particular form of network governance based on 'a general level of trust density' in the whole network has been suggested. High density of trust relations refers to a situation where trust is 'widely distributed across members', while low density of trust relations refers to circumstances in which trust is 'only narrowly distributed, [with this] occurring differentially within individual dyads or cliques' (PROVAN & KENIS, 2008, p. 238). Thus, the participant-governed form is generally suitable for networks with high density of trust, while the lead organization-governed form is appropriate for those with low density of trust, and the NAO form is for situations with moderate density of trust.

PROVAN and KENIS (2008, p. 238) stress that "*a fundamental problem with governance of any network is that the needs and activities of multiple organizations must be accommodated and coordinated*." As such, numbers of network participants also play a role in determining effectiveness of the network governance form adopted. In this regard, the participant-governed form is recommended as suitable for networks with small numbers of participants because 'full and active face-to-face participation by partners' can still be organized to solve problems. The authors point out that large numbers of participants make coordination difficult; thus, the lead organization-governed or NAO form is more effective in this situation, "*since the direct involvement of all organizations is no longer required for many network decisions*" (PROVAN & KENIS, 2008, p. 238), and the NAO form seems more suitable for networks with the largest number of participants due to 'its own unique administrative structure'.

PROVAN and KENIS (2008, p. 240) recommend that the participant-governed form is appropriate for networks in which members have high network goal consensus, while in those networks where members have 'moderately low [network] goal consensus', the lead organization-governed form can govern effectively, and the lead organization can maintain 'a broad, network-level focus', albeit only in the short term. The NAO form is more suitable for networks where the members have a 'moderately high range [of network goal

consensus]', as this form still requires involvement from some network members (normally NAO governing board members as indicated by the authors) to be effective.

The last contingency, which underlies effectiveness of the network governance form, is the need for network-level competencies. Following PROVAN and KENIS (2008), this aspect concerns the tasks, and external demands and needs of the network. For the former, the participant-governed form is less suitable if 'interdependent task requirements' of the network are high because the network members may lack skills for the tasks (e.g. 'grant writing' or 'conflict resolution'), while the lead organization-governed and NAO form can address this issue. For the latter, these two governance forms are also more appropriate than the participant-governed form in dealing with external demands and needs, for instance, managing 'environmental shocks' involving 'shifts in funding' or 'new regulations'. However, the authors indicate that the lead organization, in the lead organization-governed form, may not have, or be willing to develop, the skills needed, while 'network-level staff' in the NAO form have to develop skills for 'network-level action'.

2.2.4 Legal infrastructure for collaboration

From the amount of literature on collaboration and collaborative governance, it is clear that progress has been made on various fronts. For example, models for collaboration as well as tasks and recommendations for practitioners have been detailed by scholars, as discussed above. However, the legal framework underlying the involvement of public agencies in a given collaboration has been virtually omitted by public management scholars when looking at the collaborative endeavor, which is 'legal infrastructure' for collaboration (e.g. BINGHAM, 2008).

As previously discussed, collaborations or networks in the public sector are not always voluntary; instead, they are mandated largely by laws (O'TOOL JR., 2010; RODRÍGUEZ et al., 2007; SPAN et al., 2012). Apparently, the role of government regarding collaboration or networks is "*to force, or at least press toward, networked forms of administrative action*" (O'TOOL JR., 2010, p. 8).

Based on the US administrative context, BINGHAM (2008, 2009a, 2009b, 2010, 2011) argues that a lack of legal infrastructure still exists, where 'legal infrastructure' is defined as "*a combined system of constitutional, statutory, decisional, and administrative law, taken together with the available institutional enforcement and support mechanisms*"

(2011, p. 398) - to accommodate emerging collaborative governance. According to the author, the existing legal infrastructure (i.e. key federal and state statutes) is designed largely for 'unilateral, command-and-control, hierarchical, and individual agency action', while issues such as 'the structure of collaborative public management' or 'models for collaborative governance in agency policymaking' are not addressed (BINGHAM, 2011).

It should be noted that law for public administration is very essential because it "*empower(s) authorities to do things which would otherwise be unlawful*" (FELDMAN, 2012, p. 347). Furthermore, 'implementing laws' is the principal role of public administration (PETERS & PIERRE, 2012; ZILLER, 2012). As ZILLER (2012, p. 326) explains, most public agency decisions concerning public policy implementation have 'legally binding consequences'; thus, law is needed as 'a tool' for 'policy making and implementation' by following the *Rechtsstaat* and legality principle. Also, as an administrator[11], a public agency must follow administrative law strictly - "*the body of regulatory law that generically regulate public administration*" (ROSENBLOOM & O'LEARY, 1997, p. 51), such as the Administrative Procedure Act of 1946 (USA) and the Administrative Procedure Act of 1996 (Thailand). It must also observe subordinate legislation (e.g. royal decrees and ministerial regulations) relating to its operations; for example, the Ministry of Finance's Regulation on Official Trip Allowance of 2007 (Thailand)[12].

Thus, collaborative governance as a public policy needs both specific laws (e.g. water law) to sanction a public agency concerned about its effective implementation, and legal elements from administrative law to facilitate such implementation. To readdress a lack of legal infrastructure for collaborative governance, BINGHAM (2011, p. 398) suggests that "*public law* [administrative law included] *needs to provide a framework that authorizes collaboration, facilitates broader and more effect use, and preserve accountability to the rule of law and transparency in government.*"

[11] Administrators in the Thai administrative system include, for example, public agencies and their personnel under the central, provincial, and local administration (PAKEERUT, 2011; see Figure 2.1).

[12] CHRISTENSEN, GOERDEL, and NICHOLSON-CROTTY (2011, p. i125) observe that tension between 'a legalistic approach' and 'a managerialistic approach' to public administration has always existed, where the former relies on "*law-based priorities and processes to balance discretion/innovation and accountability,*" and the latter on "*innovation and efficiency to do the same*." However, PETERS and PIERRE (2012, p. 8) argue that public organizations are meant for 'a uniform and unbiased implementation of law', not maximization of 'efficiency, flexibility, and customer friendliness'. They also point out that the critique on 'rigidity and inertia' in public organizations, albeit with justification, considers only 'the service producing side' of modern bureaucracy, while neglecting its other side – 'the exercise and implementation of law'.

BINGHAM (2008, 2009a, 2009b, 2010, 2011) puts forth arguments on legal infrastructure for collaboration, and despite being based on the US administrative context, they are relevant as a starting point in understanding the legal infrastructure in general for collaboration in the Thai administrative context and that in particular for regulating the collaborative water governance effort directly.

There has been much discussion in Thailand about how the 1997 Constitution paved the way for public participation in various aspects of governmental work, including natural resource management. For example, TAN-KIM-YONG, BRUNS, and BRUNS (2005, p. 227) state that "*Thailand's 1997 Constitution mandated that communities be involved in managing local natural resources.*" This quote is based on Section 46 of the 1997 Constitution, which ends, however, stating, "*Persons so assembling as to be a traditional community shall have the right to conserve […] and to participate in the management, maintenance, preservation and exploitation of natural resources and the environment in a balanced fashion and persistently* as provided by law" (emphasis added). The implication for the last words, 'as provided by law', is a law must exist to sanction the involvement of local communities 'in managing local natural resources'[13]. There had been no such a law, however, until the 1997 Constitution was abolished by the coup in September 2006. Indeed, it took a long time to promulgate laws following the provisions stipulated in the 1997 Constitution (BORROMMANAN, 2006)[14].

The topic of legal framework also has been discussed in connection to water governance, but with different emphases. TARLOCK (2004, p. 120) claims "*national water codes are the cornerstones of sustainable water use*." Similarly, FISHER (2009, p. 1) explains that "*in the absence of appropriate and effective legal arrangements, the sustainable use and development of water resources are unlikely to be achieved*." SALETH and DINAR (2005 citing SALETH & DINAR, 2004), include water law as one of three components in the water institutional structure they propose. ALLAN and RIEU-CLARKE (2010) indicate how law can play an important role in ensuring accountability, transparency and participation, which are the three key characteristics of good governance for integrated water resources management (IWRM). KUMNERDPET and SINCLAIR (2011) also note that legal support

[13] cf. in the case of the public consultation law, its text has similar wording to that argued by BORROMMANAN (2006).

[14] The same situation was repeated regarding the promulgations of laws in pursuant to the 2007 Constitution, when the law for establishing the Legal Reform Commission was passed in 2010, and the constitution itself was repealed and replaced by the interim constitution in July 2014.

(policies and legislation) is identified as one of the critical factors contributing to good outcomes for participatory irrigation management (PIM). In addition, legal framework is recommended as a possible solution in water resource governance. For example, BANDARAGODA and BABEL (2010, p. 223) suggest that 'a clear water policy and related water laws' are needed for a collaborative arrangement involving IWRM. According to LAUTZE, DE SILVA, GIORDANO, and SANFORD (2011, p. 7), rule of law can be viewed as a characteristic of 'good water governance qualities' together with others such as openness and transparency.

A legal framework underlying the collaborative water governance effort in Thailand (i.e. the river basin committee) has not been explored, particularly from the view of legal infrastructure. Indeed, a Thai legal system is complex, and an overview is lost easily when various types of laws and regulations intersect. For example, a representative of the river basin organization (RBO) gave an opinion on the water bill yet to be passed, as follows, "*We don't need the Water Law. We already have the authority through local government representatives,*" and based on this opinion, LEBEL, GARDEN, SUBSIN, and NA NAN (2009, p. 146) state that "*the impacts of policy inertia in the Upper Ping*[15] *were modest.*" An RBO as an entity really needs a comprehensive legal framework to authorize its existence and functions (see ZILLER (2012) as discussed above). Also, the authority of local government representatives is sanctioned by the local government laws concerned and restricted to the jurisdiction of a given local government organization. Furthermore, this authority cannot be enforced upon other public agencies that are represented in the RBO because they are regulated by other sets of laws and regulations. Thus, 'policy inertia' not only impacts on the RBO mentioned in the Upper Ping, but also RBOs located nationwide, as they are currently regulated by the same legal framework (see Section 4.4).

A seemingly straightforward issue regarding the current state of water bills has also been confused. As presented above, LEBEL et al. (2009) report that as of mid-2009, a water bill had not been passed. However, according to UNGER and SIROROS (2011), it was passed on December 20, 2007, but later overturned by the Constitutional Court. KUMNERDPET and SINCLAIR (2011, p. 283) explain that a water bill for 2010 is still in 'the process of enactment by Parliament'. In fact, these two authors probably refer to water bills submitted by some members of the House of Representatives (OFFICE OF THE COUNCIL OF STATE, 2010; GUNJANAPHURK, n.d.), but they were only in the initial process of submission (a

[15] The Upper Ping is part of the Ping River Basin, and also the study area of this study, see Section 3.2

normal practice in the legislative branch), and not in 'the process of enactment' involving Parliament (the House of Representatives and Senate). Furthermore, the National Legislative Assembly (NLA) did not pass the water bill, as indicated by UNGER and SIROROS (2011), only agreed to adjourn its reading until the next NLA meeting, in which it still was not passed.

Collaborative governance in public management has gained increased currency in how various government agencies conduct their public work. Discussions presented above suggest different views regarding collaborative governance, as put into practice by public agencies. In a way they reflect a broader, ongoing debate as to whether governments and their agencies have lost a central role in governing to society or non-public sector (e.g. ROBICHAU, 2011), which would be a move from government to governance. From the literature, it is probably safe to state that in general, governments and their agencies still play a role in implementing public work, albeit a changing role. This insight helps as a reminder that in order to understand the collaboration efforts better between public agencies and the non-public sector, further understanding also is needed about the nature of these agencies, as regulated by the legal infrastructure, which may or may not facilitate collaboration (BINGHAM 2008, 2011).

2.3 Collaborative governance in the water sector

Collaborative governance, as discussed above, entails the involvement of public agencies and organizations from the non-public sector in implementing public work. In the water sector, collaborative governance also has been applied where the public agencies responsible increasingly involve those representing the non-public sector in managing water sources. Thus, this section explores collaborative governance as applied in the water sector.

2.3.1 Collaborative water governance

According to BAKKER and COHEN (2011, p. 7), collaborative water governance broadly refers to "*the involvement of non-state actors in decision making for water management*." The authors explain that this is based on two key principles of stakeholder involvement and shared decision-making power, instead of decisions being made by one stakeholder (i.e. government). Collaborative water governance may entail the following aspects (BAKKER and COHEN (2011, p. 7):

- *"the devolution of decision-making to lower scales of governance such as the watershed, municipality, or region;*
- *participation of a wide variety of non-state actors;*
- *the use of hydrographic boundary, such as the watershed, rather than political boundaries;*
- *collaborative decision-making processes, often emphasizing consensus and trust-building;*
- *evidence-based decision-making, often requiring extensive fact-finding."*

Based on the delegation of decision-making power (minimal delegation to significant delegation) and participation (single stakeholder, usually government to multiple stakeholders, including non-governmental ones), BAKKER and COHEN (2011) suggest four approaches to collaborative water governance. These include traditional, multi-level, consultative and delegated governance. A brief description of these approaches is provided in Box 2.1, which indicates that the last two approaches lean more towards the involvement of non-state actors.

Box 2.1 Approaches to collaborative water governance

Traditional governance

- Single stakeholder (usually government) controls decision-making;
- Limited participation of non-state actors

Multi-level governance

- Distribution of decision-making between state actors;
- Limited participation of non-state actors

Consultative governance

- Single stakeholder (usually government) controls decision-making;
- Extensive participation of non-state actors

Delegated governance

- Significant delegation of decision-making to multiple stakeholders;
- Including non-state actors

Source: Adapted from BAKKER and COHEN (2011, p. 8; Figure 1)

Collaborative water governance is also referred to by NOWLAN and BAKKER (2007, p. 19) as 'delegated water governance partnerships', which cover largely consultative and delegated governance approaches (Box 2.1). Water governance partnerships are seen to occur in four different types, based on two key characteristics: duration (short vs. long term) and decision-making power (advisory vs. authoritative) (NOWLAN & BAKKER, 2007). These four types include: collaborative engagement processes (short-term, advisory), collaborative watershed partnerships (long-term, advisory), collaborative panels (short-term, authoritative), and collaborative agencies (long-term, authoritative). Description of each type of deregulated water governance partnership is shown in Box 2.2.

Box 2.2 Types of delegated water governance partnerships

Collaborative engagement process (short-term, advisory)

- Employ techniques for conflict resolution among diverse stakeholders, e.g. collaborative learning and conflict resolution and mediation
- Consist of project-specific planning exercises of relatively limited duration

Collaborative watershed partnerships (long-term, advisory)

- Involve a range of governmental and nongovernmental stakeholders over a relatively long period
- Provide a forum for information sharing and discussion and negotiation of management actions; formal government agencies retain decision-making power
- Intend to complement (and perhaps transform) rather than replace traditional governmental activity

Collaborative panels (short-term, authoritative)

- Usually short-term (one to two years)
- Expert-dominated, problem-focused governmental initiatives, intended to supply specific inputs to policy reform
- Characterized by more limited consultation than other types

Collaborative agencies (long-term, authoritative)

- Formalized bodies with implementation power for water management decisions; autonomous and in need of large budgets
- A range of governmental and private stakeholder groups are represented typically

Source: Rearranged based on NOWLAN and BAKKER (2007, p. 19)

Collaborative water governance, as presented above, helps to illustrate how the concept of collaborative governance is applied in the water sector, and how it is operationalized as expressed in different types of collaborative efforts (Box 2.2). Collaborative water governance came into play in the Thai context when the government formally introduced

the concept of river basin management in 2002[16] by promulgating the Office of the Prime Minister's Regulation on National Water Resource Management (No.2) of 2002[17]. A similar framework regarding collaborative water governance is provided also by the Office of the Prime Minister's Regulation on National Water Resource Management of 2007, which replaced the 2002 Regulation (see Section 4.4).

2.3.2 River basin governance

As collaborative water governance in Thailand is operationalized in the form of a river basin committee, viewing it from a river basin governance perspective would help in understanding the collaborative effort under study better. So far, this review has only emphasized collaborative governance or 'public governance perspective' (BRESSERS & KUKS 2004, pp. 2-3). Thus, this section discusses concepts and issues concerning river basin governance.

2.3.2.1 Integrated river basin management

According to HOOPER (2005), integrated river basin management (IRBM) is an application of integrated water resources management (IWRM) on the river basin scale. Based on this author, IRBM is defined as "*an integrated and coordinated approach to the planning and management of natural resources of a river basin, one that encourages stakeholders to consider a wide array of social and environmental interconnections, in a catchment/watershed context*" (HOOPER, 2005, p. 9).

While the IRBM definition of HOOPER (2005) focuses on 'natural resources of a river basin', other scholars emphasize explicitly on managing water resources in respective river basins. For example, JASPERS (2003, p. 79) proposes that IRBM be referred to as, "*the management of all surface and subsurface water resources of the river basin in its entirety with due attention to water quality, water quantity and environmental integrity. A participatory approach is followed, focusing on the integration of natural limitations with all social, economic, and environmental interests.*" MOSTERT et al. (2000, p. 27) simply

[16] The current movement regarding river basin governance in Thailand, as implemented by the DWR, was induced by the Asian Development Bank as part of the Agriculture Sector Program Loan (ASPL) provided to the country in 1999. ASPL was canceled, however, by request of the Thai government on May 2, 2002, with the undisbursed loan amount of 150 million $US, from the original allocation of 300 million $US (OTSUKA, 2003).

[17] It was effective on August 22, 2002.

define river basin management (RBM) as, "*the management of water systems as part of the broader natural environment and in relation to their socio-economic environment*." SVENDSEN, WESTER, and MOLLE (2005, p. 3) point out that 'a key element' of IWRM and RBM is "*that planning and management units almost always cut across other divisions more traditionally used to manage resources, such as sectors, provinces or even nations* …". The authors also explain that apart from a common understanding of 'integration across use sectors', the term 'integrated' can be extended to cover other divisions including, for example, administrative jurisdictions, upstream and downstream reaches, land and water use, and trans-boundary use (SVENDSEN et al., 2005, p. 3).

According to HOOPER (2005, pp. 13-14), 'the expert group' advocates that IRBM should have five elements: basin-wide planning, participation in decision making, demand management, compliance, and human and financial capacities. Descriptions for each element are provided in Box 2.3.

Box 2.3 Elements of integrated river basin management

1. *Basin-wide planning*. Basin-wide planning should balance all user needs for water resources, in the present and long-term, and should incorporate spatial developments. Vital human and ecosystem needs have to be given special attention.
2. *Participation in decision making*. Local empowerment and public and stakeholder participation in decision-making will strengthen river basin management.
3. *Demand management*. Demand management has to be part of sustainable water management. Managing the demand for water rather than continual expansion of water supplies is more likely to achieve sustainable use.
4. *Compliance*. Compliance monitoring and assessment of commitments under river basin agreements and arrangements need to be developed.
5. *Human and financial capacities*. Long-term development of sufficient human and financial capacity is a necessity.

Source: ANONYMOUS (1999, cited in HOOPER 2005, p. 14)

2.3.2.2 River basin organizations: functions, forms and governance

Global Water Partnership (GWP) defines river basin organizations (RBOs) as, "*specialised organizations set up by political authorities, or in response to stakeholder demands. RBOs deal with the water management issues in a river basin, a lake, or across an important aquifer*."[18] According to GWP, RBOs perform various functions, e.g. water allocation,

[18] Tool B1.04 *River basin organisations* (the web-based IWRM toolbox: www.gwptoolbox.org)

resource management, consensus building, facilitation and conflict management[19]. Similarly, HOOPER (2005) indicates 'an array of functions' for RBOs such as regional natural resource management planning; coordination mechanisms; social assessment, social impact assessment and public involvement; natural resource and regional economy inventory; legislative instruments and policy review; decision support infrastructure; and information management system infrastructure.

From a two-layer RBO perspective (river basin and sub-basin organizations), JASPERS (2003) explains that RBO activities can be viewed as 'collective choice functions' at the river basin level, while those carried out by sub-basin organizations at the sub-river basin level could be seen as 'operational functions'. Functions that may be performed by both RBOs and their sub-basin organizations are given in Box 2.4. The author stresses further that the regulations and by-laws closely related to these functions should cover the following aspects of water governance: water resource planning; allocation and registration of water rights; tariff structures and fee collection; fund development and application; monitoring arrangements; penalties and sanctions; conflict resolution and appeal procedures (JASPERS, 2003). In a way, it can be seen that a comprehensive 'legal infrastructure' is needed to regulate and sanction the aspects mentioned (cf. Section 2.2 - Legal infrastructure for collaboration).

RBOs exist in various forms. For example, HOOPER (2005) suggests nine types of RBOs such as an advisory committee with action planning function; a commission "*delegated to consider natural resources management matters and/or take action on those matters*" (p.30); or, a tribunal with 'formalised procedures and quasi-judicial powers' that can act as a special court on water issues. MOLLE et al. (2007) propose four broad types of RBOs: basin authorities, basin commissions or committees, coordinating councils, and international river commissions (cf. Box 2.2). Descriptions for each type of RBO are provided in Box 2.5.

Following MOLLE et al. (2007, pp. 611-612), there are four models of basin governance or institutional arrangements based on whether they are 'state-driven' or 'stakeholder-driven'; and if they are based on 'centralized' or 'decentralized' mode. These models include a unicentric model (state-driven, decentralized), deconcentrated model (state-driven,

[19] Tool B1.04 *River basin organisations* (the web-based IWRM toolbox: www.gwptoolbox.org)

decentralized), coordination model (stakeholder-driven, centralized) and polycentric model (stakeholder-driven, decentralized) (cf. Box 2.1).

Box 2.4 Functions performed by river basin organizations (RBOs) and sub-basin organizations (SBOs)

RBO functions	SBO functions
1. Developing a strategic river basin plan	1. Co-developing a strategic sub-basin plan
2. Developing an operational river basin plan	2. Co-developing an operational sub-basin plan
3. Contributing to river basin protection plans/measures	3. Contributing to sub-basin protection plans/measures
4. Allocating water rights or a water permit	4. Advising on water/discharge permits
5. Allocating an effluent discharge permit	5. Monitoring and enforcing drainage responsibilities
6. Allocating drainage permits or drainage responsibilities	6. Monitoring water abstractions, water pollution
7. Coordinating between sub-basins	7.Monitoring drainage processes
8. Collecting water charges	8. Enforcing water rights, discharge permits
9. Organizing fund administration and development	9. Enforcing drainage responsibilities
10. Implementing an appeal function (first layer)	10. Enforcing legal action against defaulters
11. Creating awareness, and capacity building	11. Resolving the first layer of conflict
	12. Collecting charges and levies

Source: JASPERS (2003, pp. 86-87)

However, the two major contrasting models are unicentric and polycentric (see also SVENDSEN et al., 2005). Based on MOLLE et al. (2007, p. 612), the unicentric model follows a centralization approach as, "[*the model*] *implies a degree of centralization of data, water allocation decisions, and decision making power in order to internalize third-party effects and to address interactions between users across the basin*," while the polycentric model involves a decentralization approach with 'decentralization', 'involvement, and participation of users and stakeholders', 'local community management of upper watersheds', and 'the principle of subsidiarity'. Although the polycentric model may be able to address the shortcomings of the unicentric model, i.e. state control reinforcement and state influence on 'the integration of the values and interests of all stakeholders', it also faces challenges, where such issues as the balance between water availability and its use, and power asymmetries need to be addressed (MOLLE et al., 2007). While more responsive governance processes and improved intersectoral linkages can be

achieved through the polycentric model, it also poses some burdens including difficulty in making decisions, high cost of coordination, and agreements overturned due to political changes in 'participating jurisdiction' (MOLLE et al., 2007).

Box 2.5 Types of river basin organizations (RBOs)

1. *Basin authorities* are autonomous organizations with extensive mandates for their river basin, undertaking most water-related development and management functions. They are regulator, resource manager, and service provider all in one.
2. *Basin commissions or committees* focus on policy setting, basin wide planning, water allocation, and information management, with varying degrees of stakeholder participation. They are usually endowed with authority to manage water resources (allocating permits, defining taxation, negotiating water allocations, defining effluent standards) and sometimes plan future development, except for operation or construction involvement.
3. *Coordinating councils* are deliberative decision making bodies that incorporate public and private stakeholders and integrate policymaking across different policy areas. They are not organizations in the strict sense, but rather stakeholders from various agencies and water-use sectors brought together. Their role is coordination, conflict resolution, and review of water resources allocation and management.
4. *International river commissions* may be set apart because coordination is achieved between countries rather than among stakeholders, and because political dimensions are pervasive. They were established frequently as part of a treaty signed between riparian countries or to manage dams on shared rivers […]. They not only mediate in water conflicts through consultation and cooperation, but also may manage common databases, and their work may lead to concrete agreements.

Source: adapted, based on MOLLE et al. (2007, pp. 609-611)

2.3.2.3 Participation in river basin governance

As discussed in Section 2.2, a collaborative governance perspective separates collaborative public management or network governance from public participation, public involvement, and civic engagement, as the former focuses on organizational collaborations, and the latter on 'collaboration with the public' (BINGHAM, 2011). However, participation from the non-public sector is fundamental for collaborative governance in the water sector and river basin governance (see BAKKER & COHEN, 2011; JASPERS, 2003).

MOSTERT (2006, p. 154) defines public participation from a water governance perspective as, "*direct involvement of the public in decision making*." He indicates further in his definition that 'public' includes 'all non-governmental stakeholders', be they individuals, groups, organizations, or associations, given that they have "*an interest or 'stake' in an issue, either because they will be affected or because they may have some influence on its outcomes, or simply because they are interested*" (MOSTERT 2006, p. 155). In his conception of public participation, MOSTERT (2006) also proposes levels of participation

that range from information supply to self control, where 'decision making by the public' takes place; thus, viewed as 'the most complete form of participation' (see Box 2.6 for description).

According to MOSTERT (2003), public participation provides various benefits such as better-informed decision making and its greater acceptance, social learning, awareness raising, and 'enhanced democracy'. Similarly, a review by HOPHMAYER-TOKICH and KROZER (2008) indicates that local priorities and data, awareness raising, improved participant relationships, and 'a feeling of engaging in fair and democratic process' can be achieved during public participation processes, while 'improved quality of decisions', and 'successful implementation' can be their expected outcomes (see also ÖZEROL & NEWIG, 2008). However, public participation also faces several problems including government unwillingness in public participation, which results in disappointment and 'less public acceptance of decisions'; limited and no representation as well as low quality response from the public; inconsistent decision making; and high costs and much time required for the process (MOSTERT, 2003).

Box 2.6: Levels of public participation

1. *Information supply*
   The public is provided with or has access to information. On its own this is not genuine public participation, but it is a prerequisite for it.
2. *Consultation*
   The public can react to plan or their views are actively solicited.
3. *Co-thinking*
   Real discussions take place between the public and government.
4. *Co-design*
   The public actively contributes to policy development, for example, through design workshops.
5. *Co-decision making*
   The public shares decision making powers with government.
6. *Self control*
   The public performs tasks independently, for example, through water users' associations.

Source: MOSTERT (2006, p. 154)

2.3.2.4 Challenges of river basin governance

For advocates, "*it is at present virtually impossible* not *to organise water resources management in an integrated manner and on hydrological boundaries*" with strong emphasis on stakeholder participation believed to enhance decision-making effectiveness,

the measures decided and their enforcement (JASPERS, 2003, p. 80; emphasis is original). When put into practice; however, challenges are involved regarding the unicentric and polycentric basin governance models presented above (MOLLE et al., 2007). Besides, a river basin governance approach has been criticized increasingly, particularly regarding use of a river basin as a water resource managerial unit, and the issues of participation in, and accountability of, the RBOs (e.g. MOLLINGA, MEINZEN-DICK, & MERREY, 2007; WARNER, WESTER, & BOLDING, 2008; WESTER & WARNER, 2002).

In a recent account, COHEN and DAVIDSON (2011) identify five challenges faced by a watershed (or river basin) approach to water governance, which also cover the concerns raised above. The first challenge concerns a boundary choice (of a watershed) for selection or demarcation. This selection is not always straightforward, when based on a natural or hydrologic boundary, but other factors such as a political (administrative) boundary are also involved. The second challenge involves accountability of 'watershed-scale decisions and decision making bodies', which relates to the fact that watershed boundaries are not generally aligned with political or administrative boundaries; as such, 'watershed-scale organizations' (i.e. RBOs) or governmental participants may not be responsive or held accountable.

The third challenge covers the public participation and empowerment aspect. According to the authors, "*arguments about the benefits of the inclusion and empowerment of local actors in environmental decision-making are often promulgated through arguments in favor of decentralised decision making*" (COHEN & DAVIDSON, 2011, p. 3). The watershed approach involves 're-scaling', which is considered as 'one of decentralization', especially when scaling down from 'nations, states, and provinces' (to watersheds). Drawing on various studies, the authors conclude, however, that local actors are not empowered by 're-scaling to the watershed' approach, and "*there does not appear to be anything inherently participatory or empowering about re-scaling*" (p. 4).

The fourth challenge is indicated as 'asymmetry between watersheds and 'problem-sheds'', which essentially explains that a watershed boundary does not match with a 'problem-shed': "*watershed boundaries [...] rarely encompass all of the physical, social, or economic factors impacting upon the area within its borders*" (p. 4). The last challenge is 'asymmetry between watersheds and 'policy-sheds''. The authors define a policy-shed as "a geographical area over which a governmental entity has legislative authority such as a nation, state, province, county or municipality" (p. 4). This challenge occurs not only due

to a mismatch between a watershed boundary and policy-shed (i.e. 'conventional administrative scales'), but also because of 'policy gaps and overlaps between the different policy-sheds themselves'.

The five challenges above illustrate real world situations that the RBOs are likely to face. It seems that a mismatch in this study between a watershed and an administrative scale (the last challenge as discussed above) could be an ultimate challenge encountered by the Thai RBOs, given the fact that the Thai administrative system is very complex (see Section 2.4; Figure 2.1). However, it is evident, as presented in later chapters, that the Thai RBOs are not well established or fully functional (cf. the RBO functions above); thus, are far removed from the extent of the last challenge as well as the other four challenges described by COHEN and DAVIDSON (2011).

2.3.3 River basin organizations in Thailand

A river basin organization (RBO) in Thailand is officially referred to as 'a river basin committee' (RBC). As discussed earlier, this RBC can be viewed as collaborative governance in the water sector (see Section 2.3.1). It is relatively new in the Thai water governance context as it was introduced officially for the first time in 2002 through the Office of the Prime Minister's Regulation on National Water Resource Management of 2002. The current form of the Thai RBO (RBC) is presented in Section 4.4.2.

Based on the context of a participatory watershed management project, implemented in the Ping River Basin, THOMAS (2005) recommends five types of SRBOs, which he refers to as 'river sub-basin organizations' (RSBOs). They include: a focused government, broader government, central-local partnership, local-central partnership, and local non-government model. A brief description of each model is provided in Box 2.7.

None of these SRBO models were implemented, but they were devised, taking into account the Thai administrative system, particularly the roles of central (ministries and departments) and provincial administration (especially the provincial governors). Therefore, these models show from a collaborative governance point of view, that a Thai public agency could find ways to engage in a collaborative water governance effort. Of course these ways would also assume that a legal infrastructure is in place to accommodate such an effort, which does not seem to be the case in Thailand at the moment (see the following section and Section 6.3). Two models (the focused government and central-local partnership model), with selected characteristics on roles and responsibilities, main sources

of authority and legal identity, and representation are presented in Box 2.8. The possible roles of public agencies in the collaborative governance effort can be observed in these two models.

The concept of collaborative governance, as applied to the water sector, was discussed in the above sections. Issues concerning river basin governance also have been outlined from a Thai context viewpoint, where collaborative water governance is expressed in the form of a river basin committee. From a collaborative governance perspective, the river basin committee framework in Thailand indicates a move in which the non-public sector and local government are involved in managing water resources. Furthermore, this effort also suggests involvement of the various public agencies concerned. The next section, therefore, provides an overview of the Thai administrative system and its recent development.

Box 2.7 River sub-basin organization (RSBO) models

1. Focused government model: focus on efficiency and effectiveness in utilizing government institutional arrangements and mechanisms, and implementing activities in the mandates of a single ministry - Ministry of Natural Resources and Environment (MNRE).

Mandate: issues related to water use, forest land use, pollution, and solid waste and waste disposal.

2. Broader government model: focus on efficiency and effectiveness in utilizing government institutional arrangements and mechanisms, and implementing activities in mandates of multiple ministries – MNRE, Ministry of Public Health, and Ministry of Agriculture and Agricultural Cooperatives.

Mandate: issues related to water use, forest land use, pollution, solid waste and waste disposal, agricultural production and public health.

3. Central-local partnership model: focus on creating a real partnership among groups and organizations from the central to local level, with emphasis on central and provincial government agencies.

Mandate: water use, forest land use, agriculture, pollution, solid waste and waste disposal, public health, education, infrastructure, livelihoods and/or any other issues of local relevance and importance for management at the sub-basin level.

4. Local-central partnership model: focus on creating a real partnership among groups and organizations from the central to local level, with emphasis on local government and civil society groups and institutions.

Mandate: water use, forest land use, agriculture, pollution, solid waste and waste disposal, public health, education, infrastructure, livelihoods and/or other issues of local relevance and importance for management at the sub-basin level.

5. Local non-government model: focus on effectiveness in mobilizing non-governmental groups and civil society institutions to formulate, advocate and monitor activities within the mandate of the RSBO.

Mandate: water use, forest land use, agriculture, pollution, solid waste and waste disposal, public health, education, infrastructure, livelihoods and/or any other issues of local relevance and importance for management at the sub-basin level; which can be regrouped and repackaged according to local analyses and needs.

Source: Based on THOMAS (2005, pp. 175-182)

Box 2.8 Two river sub-basin organization (RSBO) models with selected characteristics

Focused government model:

Roles and responsibilities: to provide advice and assistance to MNRE agencies, e.g. problem identification and project planning, and assist the agencies in public awareness and training activities.

Main source of authorities and legal identity: the MNRE provides the status of a regional office in a central agency, with no need for an independent legal status.

Representation: all relevant departments and MNRE agencies are represented by provincial (district officers, sub-district chiefs, village headmen) and local administration (i.e. TAO leaders*) by invitation; the non-public sector** is nominated, selected and appointed by the MNRE.

Central-local partnership model:

Roles and responsibilities: a leadership mode for tasks such as problem analysis and identification, planning, and public awareness activities may have a stronger role in implementation and directly receiving and managing funds; and playing a leading role in monitoring environmental conditions and program impact.

Main source of authorities and legal identity: provided by the MNRE and participating ministries, provincial administration and local government in the sub-basin; RSBOs are established under provincial governors and may seek an independent legal status when appropriate and useful, with consideration given to regulatory roles and funding channels that might be affected.

Representation: the MNRE and relevant ministries are represented by provincial (province, district, sub-district) and local government (TAO leaders or their representatives); representatives for the non-public sector** are invited and selected by vote or consensus in the RSBO assembly; with a balance between governmental and local representatives.

Source: Based on THOMAS (2005, pp. 175; 178)

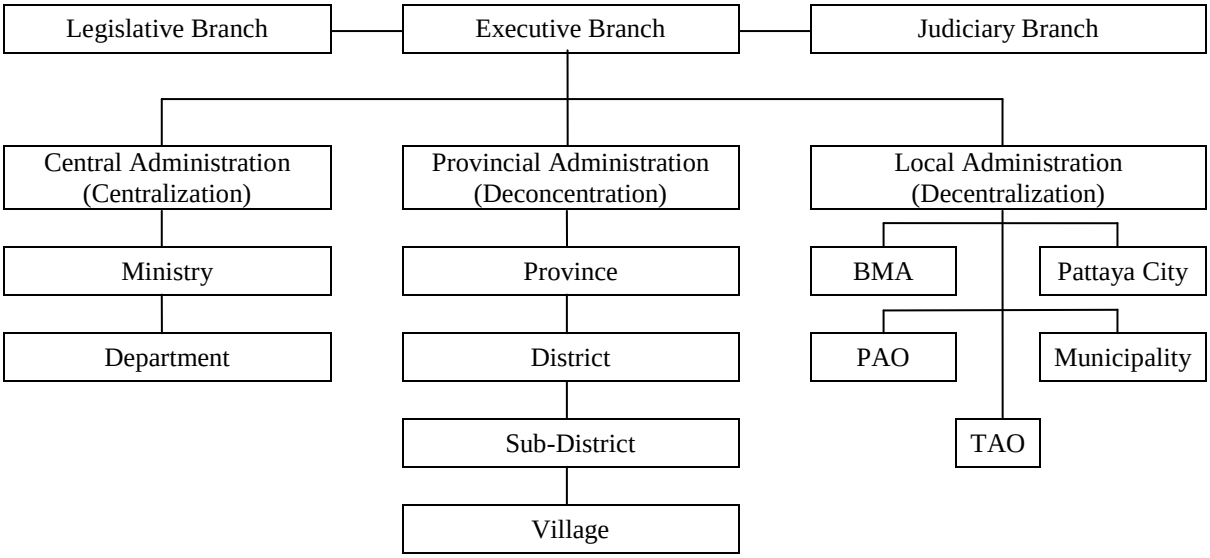
*TAO - *tambon* (sub-district) administrative organization

**'Non-public sector' is used to reference groups the author specifies as 'relevant livelihood, business and/or industry' in the first model, and "business, industry, livelihood groups, civil society and local communities" in the second one.

2.4 The Thai administrative system: an overview

Thailand is a unitary state with a strong centralized administrative system, which is a legacy from administrative reform during the reign of King Rama V (r.1868-1910) (MUTEBI, 2004; SANGSTAM, 2010). The current administrative structure, under the State Administration Act of 1991, consists of the three administrative levels of central, provincial and local administration (Figure 2.1). This administrative structure was first laid down in the State Administration Act of 1933, which according to MUTEBI (2004, p. 37), helps to continue 'the centralized arrangements' initiated by King Rama V, and has served as a basis for the central-local arrangements in Thailand up until the present time.

Figure 2.1: The Thai administrative structure



Note: PAO – Provincial Administrative Organization; TAO – *Tambon* (sub-district) Administrative Organization; BMA – Bangkok Metropolitan Administration

Source: Own illustration

Currently, arrangement of the central administration is based on a centralization approach (RANGSIYOKRIT, 2003), consisting of 20 ministries and more than 100 departments[20]. Central administrative agencies that are based mainly in Bangkok, Thailand's capital city, oversee the operations of Thai public organizations at the policy level. However, some agencies have regional offices established in the provinces. With regard to the collaborative water governance effort (i.e. the river basin committee framework), the Department of Water Resources (DWR), under the Ministry of Natural Resources and Environment (MNRE) is the responsible central administrative agency. The DWR also has regional offices, namely, the Water Resources Regional Office 1-10, which are located nationwide.

Provincial administration is organized based on a deconcentration approach (RANGSIYOKRIT, 2003), where the central administrative agencies concerned delegate certain authorities to their line units in order to carry out their policies in the provinces.

[20] Based on the Reorganization of Ministries, Sub-Ministries and Departments Act of 2002. See Appendix I for a list of the Thai ministries.

Currently, there are 76 provinces with provincial governors[21] acting as heads of all public agencies assigned to the provincial administration located in the respective provinces.

A decentralization approach is applied (RANGSIYOKRIT, 2003), regarding local administration, where local government organizations have authority regarding social and economic development in their jurisdictions. Currently, there are three main types of local government organizations: provincial administrative organization (PAO), municipality, and *tambon* (sub-district) administrative organization (TAO), with a total number of 76, 2,283, and 5,492 organizations, respectively[22]. In addition, there are two special local government organizations: Bangkok Metropolitan Administration (BMA) and Pattaya City.

Thailand has tried constantly to reform its administrative system, in which public agencies are embedded. However, large parts of the reform started during the late 1990s (BOWORNWATHANA & POOCHAREON, 2005; MUTEBI & SIVARAKS, 2007). The reform efforts in the past decade or so can be seen as 'a process of change from government to governance' (BOWORNWATHNA, 2001, p. 422). It has been said that this process of change was triggered by both market reasons (e.g. high public expenditure for personnel costs and inefficiency of the system) and non-market reasons (e.g. needs for more accountability and more participatory management of public affairs) (MUTEBI & SIVARAKS, 2007), while BOWORNWATHNA (2001) attributes it to promulgation of the 1997 Constitution and the economic crisis in 1997.

According to BOWORNWATHANA (2000), administrative reform is not a new phenomenon in Thailand; but what has been 'novel' in recent reform efforts is basing these efforts on the 'principles of governance paradigm and new public management'. These principles were inspired by the 1997 Constitution and also pushed by international funding agencies such as the World Bank, International Monetary Fund, and Asian Development Bank after the economic crisis of 1997 (BOWORNWATHANA, 2000). Already, in the early stage of recent reform efforts, BOWORNWATHANA (2000) points out that the government reformers did not pay adequate attention to the wider aspects of governance such as accountability, transparency and fairness; and instead focused more on the efficiency aspect derived from new public management, which suited well with the assumption that administrative reform was a managerial problem.

[21] Provincial governors are senior officers under the Office of the Permanent Secretary, Ministry of Interior, and appointed by the Cabinet.

[22] As of July 27, 2013 (DEPARTMENT OF LOCAL ADMINISTRATION, 2013).

Major reforms took place during the Thaksin administration (February 2001 - September 2006). Two key laws were promulgated in order to pursue good governance as the target of administrative reform: the Reorganization of Ministries, Sub-Ministries and Departments Act of 2002 and State Administration Act (No.5) of 2002 (MUTEBI & SIVARAKS, 2007). The former act resulted in the reorganization of central administrative agencies, of which some were dissolved or transferred to other agencies, and also new ones were created[23]. The latter laid down a number of provisions considered to constitute good governance practices; for example, efficiency, effectiveness, responsiveness and accountability of public agencies, and public participation.

The 'CEO provincial governor idea' also was promoted during this period by the Thaksin government, with it seen to 'reinforce the strong state tradition' (BOWORNWATHANA, 2005, p. 47), because power is concentrated on provincial governors who are viewed as the CEO of their respective provinces. This idea was put forth and implemented together with the decentralization process that started in 1999, in which various tasks, personnel, and budgets were transferred from the central and provincial administration to the local administration. With the so-called 'CEO governor system' (MUTEBI, 2004), a 'recentralizing while decentralizing' situation unfolded.

The 'CEO governor system'[24] (MUTEBI, 2004) was phased out in 2006, after a coup ousted the Thaksin government. However, its original idea has lived on and was institutionalized further by the Royal Decree on Integrated Provincial and Provincial Cluster Administration, promulgated in 2008. The 'CEO governor system' has been transformed into the integrated provincial administration. The key point in this 2008 Royal Degree, which derives from the State Administration Act (No.7) of 2007, is that provinces are authorized to create and propose their own annual budget plan. The government is then obliged to allocate the budget requested, given that the required procedures in preparing such a plan are observed. In any case, all of these factors strengthen provincial administration and enhance empowerment for provincial governors, who already have extensive authority that derived mainly from the State Administration Act of 1991, and its various amendments. Thus, provincial administration inevitably affects the DWR river basin committee framework, as the effort is implemented in its administrative area [or the administrative scale following COHEN and DAVIDSON (2011)]. Furthermore, although this

[23] The DWR was established following the 2002 Reorganization Act.

[24] For details on the 'CEO governor system', see, e.g. MUTEBI (2004) and PAINTER (2006)

very same administrative area is also shared by the local administration (i.e. local government organizations), the provincial administration is still more powerful by far (HAQUE 2010).

2.5 Chapter summary

This chapter has outlined various issues and concepts concerning collaborative governance, collaborative water, and river basin governance. Topics relating to the Thai administrative system have been explored as well. The insights collectively helped to inform this study better on implementation of the river basin committee framework by the DWR. From the collaborative governance (collaborative public management) perspective, public agencies increasingly involve the non-public sector in their work, which also happens in the water sector. Hence, collaborative water governance comes into being. However, this perspective also reminds about the nature of these agencies, which are still bound ultimately to structures of laws and regulations (HEINRICH, 2011). This is also the case for Thai public agencies; several of which are involved in implementation of the river basin committee framework. From the river basin governance perspective, RBOs are seen to come in different forms with varied functions. There also are several challenges in implementing the river basin governance approach, particularly in using a river basin as a managerial unit (e.g. MOLLINGA et al., 2007).

3. RESEARCH METHODOLOGY

This chapter outlines the research methodology employed by this study. It begins with a conceptual background used to guide data collection and data analysis processes. Then, the course of the river basin committee framework, and background information of the case study (i.e. the Ping River Basin Committee) are discussed. Data collection and data analysis are explained in the following sections, and critical evaluations of the methods used in this research are provided as well.

3.1 Conceptual background

This study attempts to explore the collaborative water governance effort in Thailand, which has been implemented in the form of a river basin committee (RBC). To operationalize the study, a whole network perspective (PROVAN, FISH, & SYDOW, 2007) was adopted.

According to PROVAN et al. (2007, p. 512), "*collaboration through an interorganizational network is an approach that is increasingly utilized*" by 'government and private groups' for various issues such as improving the economy, health and well-being of citizens. Their focus is "*on large-scale outcomes that can be accomplished through the collective efforts of multiple organizations. In other words, emphasis is on the whole network and not on the specific relationships that any one or pair of organizations maintains*." Furthermore, the 'whole network' here is defined as "*a group of three or more organizations connected in ways that facilitate achievement of a common goal*" (PROVAN et al., 2007, p. 482). Following this line of thinking, the RBC under study could be viewed as focusing on the 'large-scale outcomes' of water governance in its respective river basin. In principle, the RBC also relies on multiple participating organizations to achieve these outcomes, thereby emphasizing on the whole network[25].

In viewing the RBC as 'a whole network', this study placed emphasis on its formation, which was essentially the legal framework concerned (see Section 4.4.2) translated into the action of creating this committee. Additionally, this study examined RBC management, as to whether it was managed by following the guideline prescribed in the legal framework concerned (see Section 2.2.3). The collaborative process and participation in the RBC also were analyzed (see Section 2.2.2 and 2.3.2). These examinations addressed the research

[25] See Section 4.4.2 for the RBC mandates, and organizations and individuals involved in this committee.

question of how the RBC framework was implemented on the ground. In addition, this study also examined functions that the RBC had performed and their outcomes, which is also an important issue regarding all of 'the whole networks' (PROVAN et al., 2007, p. 509). That being explained, organizational level issues were not explored, such as what effects participating organizations and individual involvement had on the 'actions and outcomes' of the RBC (PROVAN et al., 2007, p. 483).

3.2 The course of the RBC framework and the Ping RBC

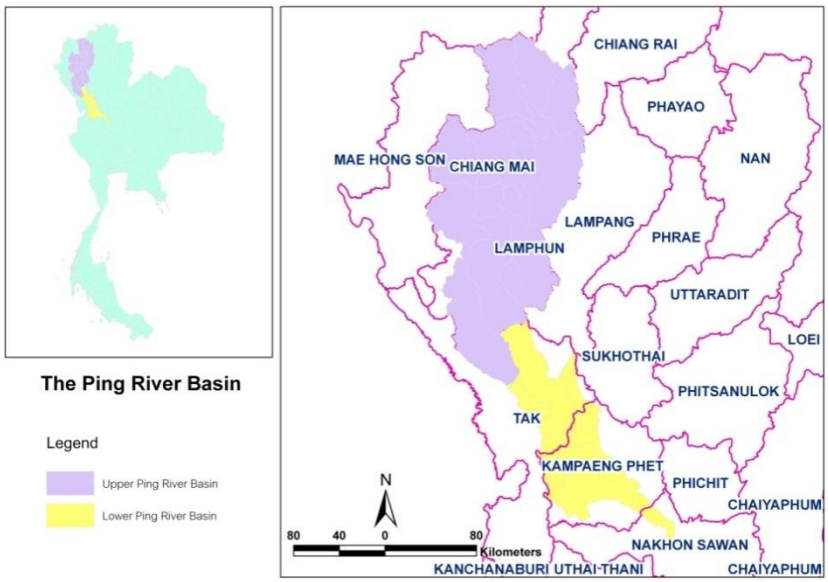
The RBC framework was first introduced in Thailand by the Office of the Prime Minister's Regulation on National Water Resources Management (No.2) of 2002. At this time, there were 29 river basins located across the country. By 2006, 29 river basin sub-committees were appointed for these river basins, and other governing bodies, such as river basin working groups and provincial river basin working groups, were appointed as well (DWR 2006). Against this background, this study initially planned to select one of the 29 river basin sub-committees: the Upper Ping River Basin Sub-Committee, as a study case.

The Upper Ping River Basin (UPRB) consists of 14 sub-river basins, covering the provinces of Chiang Mai and Lamphun (Figure 3.1 and 3.2). In the fiscal year 2007 (October 2006-September 2007), the Upper Ping River Basin Coordination and Management Section (URCMS)[26], which was responsible for the UPRB, selected the Mae Rim sub-river basin (one of the 14 UPRB sub-river basins) to conduct a pilot study, which was chosen initially as a focused study area. The Mae Rim Sub-river Basin Working Group also would be examined, together with the UPRB Sub-Committee, as this Working Group could be observed from the start of the setup.

Unfortunately, there was a long delay in implementing the pilot project of the Mae Rim sub-river basin. Its initial meeting was held on July 19, 2007 and the framework of the Mae Rim Sub-river Basin Working Group was discussed. It was agreed that the Mae Rim sub-river basin be divided into three parts: upper, middle and lower. Each part would also have its own working group, nested under the Mae Rim Sub-river Basin Working Group. The meetings were organized in September 2007 - the last month of the fiscal year - to discuss the working group framework for the above three Mae Rim sub-river basin parts, but implementation of any activities had to wait for the new fiscal year.

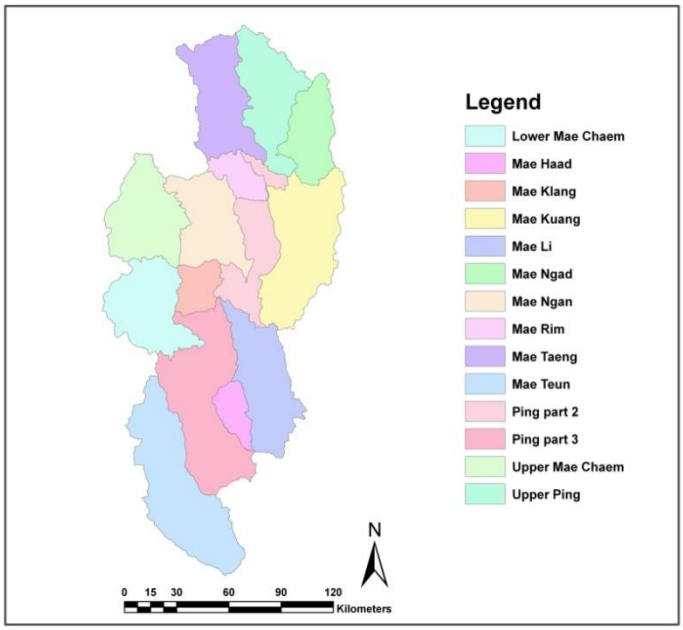
[26] URCMS is a division under the Water Resources Regional Office 1 (WRO 1) of the DWR.

Figure 3.1: The Ping River Basin and its components



Source: The Upper Ping River Basin Coordination and Management Section (2008); Compiled by Sureeporn Sri-ngam, The Uplands Program-SFB564

Figure 3.2: The Upper Ping River Basin with its 14 sub-river basins



Source: The Upper Ping River Basin Coordination and Management Section (2008); Compiled by Sureeporn Sri-ngam, The Uplands Program-SFB564

It was found later that the label of 'pilot project', given to the Mae Rim sub-river basin, did not reflect the general meaning of this concept; which is, "*water managers regularly use pilot projects as instruments for testing innovations and implementing policies on a restricted scale. Pilot projects are the means of applying new approaches in a confined field setting to learn about the innovation-context interaction or adjusting management practices and policies*" (VREUGDENHIL, SLINGER, THISSEN, & RAULT, 2010, [online]). Rather, it was only a label given to a sub-river basin being selected as a target to setup a sub-river basin working group by the DWR line agencies responsible, for example, the URCMS. Additionally, there was in fact a directive requiring these line agencies to establish at least one 'pilot sub-river basin' in their jurisdiction within one fiscal year. Consequently, the URCMS also implemented 'a pilot sub-river basin' in the Mae Klang and Mae Khan sub-river basins during the following fiscal years, using the same procedure as that in the Mae Rim sub-river basin by setting up the sub-river basin working group, with no other particular activities.

Concurrently, there was also development concerning the overall RBC framework in the fiscal year 2007. The government issued the Office of the Prime Minister's Regulation on National Water Resources Management of 2007, which came into effect on July 14, 2007. This Regulation required the appointment of a new National Water Resources Committee (NWRC), and new river basin committees to replace the existing 29 River Basin Sub-Committees (See 4.4.2). This time, there was 25 river basin committees (RBCs), corresponding to 25 main river basins (BUREAU OF RESEARCH, DEVELOPMENT AND HYDROLOGY, 2009; see Appendix II).

Therefore, the UPRB Sub-Committee was dissolved and official appointments of the 'pilot' sub-river basins mentioned above were suspended. With the new demarcation of 25 main river basins, the UPRB was merged with the Lower Ping River Basin (LPRB) to form the Ping River Basin (Figure 1). The LPRB covers three provinces: Tak, Kampaengphet and Nakhonsawan, with 6 sub-river basins. The UPRB extends across two provinces (Chiang Mai and Lamphun), and the Ping River Basin covers an area of 34,499.39 km^2, making it the fifth largest river basin in Thailand, with 20 sub-river basins in total (BUREAU OF RESEARCH, DEVELOPMENT AND HYDROLOGY, 2009, p. 1-1)[27]. It should be noted that although the Upper and Lower Ping River Basins were merged, their former agencies - the URCMS and Lower Ping River Basin Coordination and Management

[27] See Appendix III for a list of sub-river basins in the Ping River Basin.

Section (LRCMS), respectively – still exist, and both are responsible for the new Ping RBC.

The RBC framework was essentially back to square one in the fiscal year 2008 (October 2007-September 2008). However, it was started again by appointing the new NWRC and 25 new RBCs, with appointment of RBC non-public sector members made in the following fiscal year (see Section 4.4.2 and Section 5.1). The first meeting for each of the 25 new RBCs was scheduled for early 2009 by the Bureau of Mass Promotion and Coordination (BMPC) of the DWR. The first meeting of the new Ping RBC was held on February 6, 2009.

The situation described above changed the course of activities in the UPRB, thereby affecting the original research plan for this study. As the UPRB Sub-Committee and its structure no longer existed, this study took the Ping River Basin Committee as an illustrative case for examining the RBC framework. However, focus on the study area remained in the upper part of the Ping River Basin (the former UPRB), particularly the Mae Rim sub-river basin, where water governance practices were observed at the local level. This gave examples of how water resources were managed in an area where the RBC framework was being implemented.

As mentioned earlier, Thailand is a unitary state with strong centralization (Section 2.4). Consequently, there is little room for discretion from the public agencies concerned when it comes to implementing a certain policy. In the context of RBC framework implementation, the DWR agencies responsible would be duly expected to follow directives from the DWR or other superior authorities, and indeed this was the case, as indicated by the 'pilot sub-river basin' directive presented above. Thus, selecting the Ping RBC (or any other RBC) as an illustrative case of RBC framework implementation was not far-fetched.

3.3 Data collection and analysis

3.3.1 Data collection methods

In order to obtain the data for this study, three data collection methods were employed: semi-structured interview, informal interview, and non-participant observation.

3.3.1.1 Semi-structured interview

A semi-structured interview was conducted with members of the Ping RBC and Ping River Basin Sub-Committee. The main aim was to obtain data concerning their knowledge and opinions about the RBC framework and their participation in the Ping RBC setup. The same interview approach was employed as well with senior officers of the URCMS, in order to gain information about their operations regarding the RBC framework.

To collect data on local water governance practices in the Mae Rim sub-river basin, several key informants were interviewed with a semi-structured approach. These included heads of selected local water user groups (*muang fai* groups) and the executives and staff of selected *Tambon* (Sub-district) Administration Organizations (TAOs), located in the sub-river basin concerned. In addition, the semi-structured interview also was conducted with leaders of the Mae Tang Irrigation Water User Association, with its irrigation area partly located in the sub-river basin.

All interviews were recorded and conducted in the Thai or northern Thai language depending on the background of the interviewees. An interview list and interview topics are presented in Appendix IV.

3.3.1.2 Informal interview

An informal interview was employed to obtain specific information, particularly regarding the RBC framework. Thus, the informants were generally URCMS staff members responsible for specific tasks or projects in connection with the RBC framework. Notes were taken while the informants gave their information, which provided insights into the framework concerned, and occasionally led to accessing official documents that were not easily or publicly available. The informal interview was conducted also with other key informants in order to obtain related information, for example, from an officer of the Chiang Mai Provincial Office on the issue of provincial strategic development plans.

3.3.1.3 Non-participant observation

Activities concerning the RBC framework were observed. They were organized in an official meeting format, including meetings of the Ping RBC and those of their governing bodies: the Sub-Committee for River Basin Management and Information, provincial river basin working groups, and sub-river basin working groups. Discussions were recorded during the meetings, with photographs taken. Notes on the general atmosphere of the

meetings were taken to complement the recordings. It should be noted that the meetings were very formal, and the same procedure was repeated in each one. Thus, there was actually little to observe, for example, in terms of interaction among the participants or issues being discussed or decided. However, observations at these meetings provided access to the only forum in which members of the Ping RBC and those of its governing bodies came together; and they also provided access to meeting material. A list of the meetings observed is provided in Appendix V.

Apart from the meetings previously mentioned, other activities related to the RBC framework, or work of the URCMS, were observed; for instance, a seminar on participatory river basin management, where the representatives of 25 RBCs attended, and a meeting on river basin management planning. In addition, observations were made on activities of the Mae Tang Irrigation Water User Association (MWUA) (e.g. a water allocation meeting). Discussions during the meetings were recorded and photographs taken from these observations. Notes also were taken to complement the recordings.

This author was present at all of the meetings and activities observed, except for those of the MWUA, which were acknowledged by the URCMS. These meetings and activities were attended by the participants concerned, which included several supporting/accompanying staff. Thus, this author's presence at these meetings and activities did not affect their course or participants' actions. This author was introduced to the MWUA by a responsible irrigation officer. As 'a student' collecting information for his study, he was notified about the activities and his presence did not affect the course of MWUA activities or the actions of MWUA leaders.

3.3.2 Documentary data

Apart from data obtained by the three methods discussed above, documentary sources were relied upon heavily in this research, particularly for issues relating to the RBC framework and state administration (e.g. laws and policies). Documents collected were as follows:

3.3.2.1 Documents on the RBC framework

The documents were collected mainly from the URCMS office. These included, for instance, reports on activities of the RBC framework under the Office of the Prime Minister's Regulation on National Water Resources Management (No.2) of 2002;

handbooks (e.g. on coordination of water management at the local level); policy directives for the Ping RBC; and meeting presentation files (in a PowerPoint form).

Meeting material also was collected when observing meetings of the Ping RBC and its governing bodies, as mentioned above. It generally contained a detailed meeting agenda, meeting report and other attachments, e.g. official appointment documents or plans. Information on activities of the other RBCs was collected also from the DWR website (www.dwr.go.th). In addition, documents such as NWRC meeting reports and their orders also were obtained from the above mentioned website.

3.3.2.2 Legal documents

The legal documents included water bills and related legal opinions of the Council of State; and, rules and regulations observed by the DWR and its line agencies in implementing the RBC framework. Also, public law documents were gathered such as the State Administration Act of 1991, Reorganization of Ministries, Sub-Ministries, and Departments Act of 2002, and Administrative Procedure Act of 1996.

3.3.2.3 Policy documents

The policy documents included the Water Policy, Five-Year National Economic and Social Development Plans, government policy statements, and four-year DWR action plans. Furthermore, Cabinet resolutions related to water issues were collected as well.

3.3.2.4 Other related documents

Apart from the documents mentioned above, the following ones also were gathered for this study: DWR policy directives, DWR executive meeting reports, DWR annual reports, research reports or handbooks on water governance in Thailand, and documents on the integrated provincial administration.

3.3.3 Data analysis

According to BERNARD and RYAN (2010, p. 109), "*analysis is the search for patterns in data and for ideas that help explain why those patterns are there in the first place*." This study aimed to explore the collaborative water governance effort in Thailand, which was implemented through the RBC framework. Based on preliminary readings of some

documentary data gathered, and observations on activities in the Ping RBC setup; it was apparent that implementation of the framework concerned followed a top-down approach, with detailed prescriptions and policy directives for the public agency responsible - the URCMS in this case. Governing bodies in the RBC framework (i.e. the Ping RBC, and its sub-committee and working groups) do not exist or function with authority as independent bodies. Additionally, participation in the river basin committee framework is marginal. As such, data analysis here showed little concerning 'the search for patterns in data', but more in searching for 'ideas that help explain why those patterns are there in the first place'.

To this end, a qualitative content analysis was applied to construct an account of RBC framework implementation arranged through the Ping RBC, as well as an explanatory account of the phenomena evidently observed, as mentioned above. The intention here is not to search primarily for patterns from the data collected, but rather to be concerned with their manifest content, which is "*visible at the surface level or literally present in the text*" (KONDRACKI, WELLMAN, & AMUNDSON, 2002, p. 225)[28]. Thus, only certain steps for qualitative content analysis, as outlined by BERG (2007), were followed as a guide. The data analysis processes, therefore, covered only the steps of developing analytic categories, establishing objective criteria for selection (of the data) and sorting the data into analytic categories. For normal analysis processing, a further step to identify patterns from the sorted data was performed, and 'an explanation (analysis)' given with reference to the related literature (BERG, 2007). However, the manifest contents of the sorted data for this study were extracted and summarized instead; then, the descriptive and explanatory accounts were constructed, based on these manifest contents. In a similar fashion to the last step of BERG's (2007) analysis process, explanations and discussions with reference to the related literature were given for the accounts constructed. The following paragraphs explain in more detail the steps of qualitative content analysis used in this research.

As a step to determine analytic categories, key aspects of the RBC framework implementation outlined in Section 3.1 were relied upon and used as analytic categories. They included the RBC formation as well as its management, collaborative process, participation, and outcomes, which were derived from the literature review in Chapter 2. In

[28] As compared to latent content referred to as "*having a deeper meaning implied in the text*" (KONDRACKI et al., 2002, p. 225).

a way, this method leaned toward ‘deductive category application’ of qualitative content analysis (MAYRING, 2000, [online]).

In terms of criteria for data sorting and the sorting process, the analytic categories mentioned above were used also as ‘keywords’ for sorting through the data (BERG, 2007). That is to say, the collected data were sorted into respective categories if they contained information that related to them. For example, sections on ‘the National Water Resource Committee’ and ‘the River Basin Committee’ in the water bill were included under the RBC management category, as they provided information about the composition and management of the RBC. Likewise, key performance indicators of the URCM were sorted into the participation category, because some indicators referred to public participation in Ping RBC activities (i.e. meetings), while some others involved organization of the meetings themselves. Regarding documentary data, some interpretations were carried out as well in order to understand their contents in relation to the RBC framework, particularly when it came to dealing with legal and policy documents. With regard to the records of interviews and meetings, only the parts containing data related to the categories mentioned were transcribed (cf. BRYMAN, 2008).

Information was extracted and summarized from the sorted data, and then interpreted and synthesized in the sense of ‘developing ideas about the information found in the various categories’ (BOGDAN & BILKEN, 2003 cited in BERG, 2007, pp. 307-308), as various pieces of information from different sources and contexts were sorted out and put together in respective categories. For example: an interpretation was made regarding a link between the RBC and state administrative structure, or status of the 2007 Regulation as a subordinate legislation, and its implications on the authority pertaining to the RBCs and their decision making power. In a way, ‘an explanation (analysis)’ of this information was given (BERG, 2007, pp. 326-327).

As a result, comprehensive accounts were composed for the RBC framework and its key aspects, as outlined in Section 3.1. These accounts were also discussed with reference to the concepts and issues presented in Chapter 2 and other related literature, such as those concerning water policy implementation (e.g. ABERS, 2007; LAUBE, 2010; TANKHA & FULLER, 2010). These accounts are presented in the following chapters.

3.4 Critical evaluation of the methods applied

This research set out to examine the collaborative water governance effort in Thailand, using the Ping RBC as an illustrative case. Three methods were used to collect data: semi-structured interview, informal interview, and non-participant observation (Section 3.3.1). In addition, related documentary data were gathered (Section 3.3.2). In a way, 'a validity strategy' in terms of data source triangulation was applied (CRESWELL, 2009, p. 191). The three methods used for data collection in this study also yielded reliable information. The following paragraphs discuss the data collection methods concerned, and information gained in the context of research on the RBC framework implementation undertaken.

It can be said in retrospect that core findings on the Ping RBC implementation were derived mainly from observations into its activities (i.e. the meetings), informal interviews with the URCMS staff responsible, and documentary data on the RBC framework. The data gathered from semi-structured interviews with members of the Ping RBC and its governing bodies were then used largely to explain and elaborate on their findings.

The situation mentioned above can be explained best with reference to the course of the RBC framework (see Section 3.2). With introduction of the new RBC framework, the DWR agencies responsible (e.g. URCMS and LRCMS in the case of the Ping River Basin) were given priority to follow the procedure of establishing new RBCs, where their governing bodies could be established in sequence later (see Section 5.1). It was found over time that a meeting was the only activity organized for the Ping RBC framework, which was also the case for the other RBCs. In addition, it should be noted that these meetings were not intensive, for example, two Ping RBC meetings per (fiscal) year, which became the primary sources of data, while observations were a crucial means for collecting information. With limited information about the RBC framework and its implementation, the URCMS staff responsible became the main data sources accessed through an informal interview. They also provided main documents on the framework concerned and its implementation.

Non-participant observations of the meetings had noted that they were of formal format (see Figure 3.3), where the same procedure was repeated in each one. Also, there was virtually no interaction or deliberation between the participants. Furthermore, the meetings duly followed respective meeting agendas. Thus, no complications occurred during sessions, and misinterpretations of what was observed were then unlikely.

The informal interview yielded reliable data from the URCMS staff responsible, and it always fell in line with the information collected from the other two methods as well as related documentary data (e.g. policy directives). Indeed, the informal interview reduced stress on the staff. This kind of 'chat' also helped to establish a good rapport with them over time, and led to access of various documents on the RBC framework, Ping RBC, and operations of the URCMS. Although these documents were unrestricted, they were not easily or publicly available. Thus, without these 'gatekeepers', various insights about implementation of the RBC framework in general, and Ping RBC in particular, may not have been gained.

Figure 3.3: Meeting of the Mae Rim Sub-River Basin Working Group (15.06.2010)

Source: Own photo

A semi-structured interview with members of the Ping RBC and Ping River Basin Sub-Committee did not yield solid data on the RBC framework, partly because they were new to the framework and partly due to the low intensity of activities connected to it. However, the critical opinions gained about the RBC framework were valuable in confirming what was observed during the meetings, as was the information given from the interviews by the URCMS staff.

In all, it could be ascertained that validity of the data and insights was gained from the data collection methods concerned, which had a high degree of independence from 'accidental circumstances of the research' (KIRK & MILLER, 1986 cited in PERÄKYLÄ,

2004, p. 285). Inference was made to other issues based on these data and insights as well as other related documents (e.g. legal documents) in order to juxtapose the RBC framework and its implementation into the wider context of the Thai administration (Chapter 6). Thus, it could be claimed that the results of this research are valid in representing collaborative water governance in Thailand.

3.5 Chapter summary

This chapter explains the research methodology of this study. A conceptual background was based on a whole network perspective, where the RBC was viewed as a whole network and analyzed as such regarding its formation, management, collaboration, participation, and outcomes. The course of the 2007 RBC framework led to establishment of 25 new RBCs, including the Ping RBC, which was used as an illustrative case in this study. Three data collection methods were employed by following the conceptual background mentioned, which included a semi-structured interview, informal interview, and non-participant observation. In addition, various types of documentation also were included such as documents on the RBC framework, and legal documents. The collected data were analyzed by means of a qualitative content analysis. With data source triangulation, uncomplicated nature of the activities observed, and insights gained through interviews with the URCMS staff responsible, as well as members of the Ping RBC and Ping River Basin Sub-Committee, the research results are assuredly valid.

4. WATER GOVERNANCE IN THAILAND: POLICIES AND CURRENT PRACTICES

This chapter discusses recent policies concerning water resources and current water governance practices taking into account the year 2000, when the National Water Policy was issued as a starting point. Regarding recent water resources-related policies, apart from the one already mentioned, this chapter provides an overview of other main policy documents, including Policy Statements and Five-Year National Economic and Social Development Plans. In addition, discussion on the water bill focuses on its provisions regarding the structure and function as well as management of the River Basin Committee (RBC). Current water governance practices and the roles of local government organizations (LGOs) in water governance observed in the Mae Rim sub-river basin are also presented. The last issue covered in this chapter concerns the RBC framework, deriving from the Office of the Prime Minister's Regulation on National Water Resource Management of 2002 and 2007.

4.1 Recent water policies

4.1.1 The national water policy

The National Water Policy of 2000 was the first of its kind in Thailand. It was developed as part of the loan conditions of the Asian Development Bank (ADB) for the Agriculture Sector Program made by the Thai government in 1999. The drafting process of this policy started with development of the National Water Vision in 1999, based on the concept of Integrated Water Resources Management (IWRM), and led by the then Office of National Water Resources Committee (ONWRC)[29], and Royal Irrigation Department (RID) (KAOSA-ARD et al., 2001a). The vision reads as follows (SETHAPUTRA, THANOPANUWAT, KUMPA, & PATTANEE, 2001, p.87):

"*By the year 2025, Thailand will have sufficient water of good quality for all users through efficient management and an organizational and legal system that will ensure equitable and sustainable use of water resources, with due consideration for the quality of life and the participation of all stakeholders.*"

[29] Dissolved by the Reorganization of Ministry, Sub-Ministry, and Department Act of 2002, and the staff were transferred to the DWR.

Consequently, the National Water Vision was translated into the National Water Policy through a brainstorming workshop held by the ONWRC in March 2000, and the drafted water policy was submitted to the National Water Resources Committee in July 2000 (SETHAPUTRA et al., 2001). The cabinet finally endorsed the policy (Box 4.1) in October 2000. The national action plan also was developed as part of the National Water Policy, where strategies, actions, agencies responsible and timeframes were outlined. For example, in order to achieve a policy component on water resource management with a sound legal framework, a draft water law was planned for submission to the government by June 2001, with the ONWRC being the agency responsible (SETHAPUTRA et al., 2001, Appendix 1).

Box 4.1: The National Water Policy 2000

1. Accelerate promulgation of the draft Water Act to become the framework for national water management by reviewing the draft and implementing all necessary steps to make the Act effective, including reviews of existing laws and regulations.
2. Create water management organizations at the national and river basin level together with supportive laws. The national organization will be responsible for formulating national policies, monitoring and coordinating activities to fulfill the set policies. The river basin organizations will be responsible for preparing water management plans through a participatory approach.
3. Emphasize suitable and equitable water allocation for all water use sectors, and fulfill basic water requirements of agriculture and domestic use. This will be accomplished by establishing efficient and sustainable individual river basin water-use priorities under clear water allocation criteria, incorporating beneficiary cost sharing based on ability to pay and level of services.
4. Formulate clear directions for raw water provision and development compatible with basin potential and demands, and ensure suitable quality while conserving natural resources and maintaining the environment.
5. Provide and develop raw water resources for farmers extensively and equitably in response to water demand for sustainable agriculture and domestic use, in a similar fashion to deliveries of other basic infrastructure services provided by government.
6. Include water-related topics at all levels of the educational curriculum in order to create awareness of water value, and understand the importance of efficient water utilization, as well as the necessity and responsibility for maintaining natural and manmade water sources.
7. Promote and support participation, including clear identification of procedures, and concise guidelines on the rights and responsibility of public, non-government and government organizations. Water management includes water utilization, water source conservation, and monitoring and preserving water quality.

Box 4.1: The National Water Policy 2000 (continued)

8. Accelerate preparation of flood planning and drought protection, including warning, damage control and rehabilitation, efficiently and equitably with proper utilization of land and other natural resources.
9. Provide sufficient and sustainable financial support for action programs in line with the national policy, including water-related research, public relations, information collection and technology transfer to the public.

Source: Adapted from WATER RESOURCES ASSOCIATION (2005, Annex I)

The National Water Policy was criticized for its lack of wider public participation and independence from the ADB in the drafting process (CHANTAWONG, 2005). Concern was also raised in that its implementation would affect the general public adversely. With economic instruments intended to improve water allocation, water could become commoditized, and only those with greater economic power would gain access to it (CHANTAWONG, 2005). However, KAOSA-ARD et al. (2001a) observed that the policy would not be realized in the near future because of the broad nature of its measures and action plan, as well as the need for information, e.g. prioritizing water use in such sectors as agriculture and industry.

Indeed, the National Water Policy has not been implemented probably because water law promulgation indicated clearly as the first priority in this policy is yet to be achieved (see Section 4.2.1). Furthermore, instead of using the water policy as a framework to devise water resources-related programs and projects, government policies and agendas mainly devised them (Section 4.1.3).

4.1.2 The five-year national economic and social development plans

Thailand's development over the past five decades has been directed by the Five-Year National Economic and Social Development (NESD) Plans, which are currently in their Eleventh Plan (2012-2016). According to LORSUWANNARAT and BURACOM (2010, p. 108), these plans "*actually set agenda and budget priorities for the governments to follow*." With regard to water resource management, Plans under sections on agricultural development, or natural resources development and management, always indicate that water source development meets the country's needs of water, in which the RID plays a central role. Water source development reached its peak in the Fifth NESD Plan (1982-1986), during which 14 large-scale and 121 medium-scale irrigation projects were constructed (RID,

2010). However, water source development continues to feature in NESD Plans. For example, the Eleventh Plan (2012-2016) is targeted to increase an irrigation area by 200,000 *rai*[30] per year[31].

According to SETHAPUTRA et al. (2001), the issue of coordinated water resource management was not suggested during the First to Fifth NESD Plans (1961-1986), although there were (and still are) a number of public agencies involved[32]. However, a policy guideline was introduced for the first time during the Sixth NESD Plan (1987-1991) in order that the public agencies concerned could prepare their water resource management-related plans, based on a river basin (SETHAPUTRA et al., 2001). Since then, systematic or integrated water resource management at the river basin level always has been recommended in the NESD Plans, with an emphasis on public participation.

Currently, the Eleventh Plan (2012-2016) is set as a target to 'improve efficiency of the entire water management system'. It also outlines various 'development guidelines' including integrated river basin management plan; water allocation systems e.g. for agricultural use[33]; and legislations to empower local government organizations (LGOs) and local communities to manage river basins.

However, it can be seen that the NESD Plans have not been realized regarding integrated water resource management at the river basin level, as presented in the following sections. Viewing this from the NESD Plan perspective, the trend may reflect that it has lost its significance increasingly in setting up a development direction for governments, because political parties adhere to their policies, while public agencies operate according to the government administrative plans, which are developed based on government policies (KOEBERLE, 2005; ONESDB, 2011). Thus, the following section turns to explore water resources-related policies, as prescribed in these government policies.

[30] 1 hectare = 6.25 *rai*

[31] The Eleventh National Economic and Social Development Plan (2012-2016; p.108)

[32] According to the OFFICE OF NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT BOARD - ONESDB (2004), there are 30 agencies including state owned enterprises under ten ministries involved in water resources management.

[33] The Eleventh National Economic and Social Development Plan (2012-2016; pp.108, 110-111)

4.1.3 The government's water resource-related policies

There have been seven governments in Thailand during the past thirteen years (2001-2013). Apart from Policy Statements, the government also has had to prepare the Administrative Plan since 2005, which "*is used as a means to translate the political will of the elected government into administrative actions*" (LORSUWANNARAT & BURACOM, 2010, p. 108). Details of the Plan such as policy objectives, measures and indicators for achieving these aims are outlined.

It has been observed from the Policy Statements that water resources have always been on government agendas. For example, the Samak government (February 2008)[34] and Yingluck government (August 2011)[35] indicated that irrigation area expansion and irrigation system improvement were two of their urgent policies[36]; the latter of which also included 'promotion of integrated water management' as a pressing policy. The measures to address this policy included, for instance, the construction of small-, medium-, and large-scale irrigation projects, and small-scale irrigation canal systems at the farm level. The Abhisit government (December 2008)[37] outlined its urgent policies such as rejuvenation of the economy and enhancement of investments for, among other things, stimulating the country's development. Regarding the economy rejuvenation policy, part of its measures was to develop natural sources of water, while investments in water management and irrigation systems formed activities in a section of the investment enhancement policy.

In addition, water resources also were addressed under the land use policy, natural resources, and the environment, which is part of the general policies developed to pursue directive principles of fundamental State policies, as prescribed in Chapter 5 of the 2007 Constitution. These directive principles cover such topics as national security, the economy, administration of state affairs, and foreign affairs as well as land, natural resources, and the environment. For example, the Abhisit government (December 2008) outlined the protection and conservation of water and other natural resources (e.g. forest and wildlife) as part of its policy on land use, natural resources, and the environment. Likewise, the Yingluck government (August 2011) indicated promotion of 'comprehensive water management' in its policy to address the water resource issue.

[34] The Samak government's Policy Statements presented to the National Assembly on February 18, 2008.

[35] The Yingluck government's Policy Statements presented to the National Assembly on August 23, 2011.

[36] Urgent policies are those to be implemented during the government's first year.

[37] The Abhisit government's Policy Statements presented to the National Assembly on December 29, 2008.

Details from the government's Administrative Plans, which were developed from the Policy Statements, provided more concrete pictures of how those policies and measures would be translated into 'administrative actions'. For instance, to achieve the policy on expansion of irrigation areas and irrigation system improvement, the Samak government set indicators in its Administrative Plan for adding 558,000 *rai* to irrigation areas, increasing the development of water and groundwater sources, and rehabilitating water sources[38]. This reflected well in projects implemented by the RID during the 2009 fiscal year: 6 large-scale, and 57 medium-scale irrigation projects (both new and continuous); and 246 projects for small-scale water source development and water distribution systems (RID, 2009).

The Abhisit government suggested water source development and rehabilitation, establishment of the clean water standard, and a mechanism for integrated water resource management and public participation for measures in part of its Administrative Plan[39] to achieve water resource protection and conservation, as outlined in its policy on land use, natural resources, and the environment. The Department of Water Resources (DWR)'s budget plan for the 2010 fiscal year[40] was a good example of how the policy concerned was implemented. It had two key measures for water resource protection and conservation: those being an improvement of water resource management mechanism; and, water source development and rehabilitation. For the former, a total budget of 106.9 million Baht was allocated[41]; of which, 59 million Baht were provided for the management of the RBCs in 25 river basins. For the latter, a total budget of 3,778.6 million Baht was allocated for 1,771 projects on water source conservation and rehabilitation.

Overall, it is evident that water resource-related policies have placed an emphasis on the supply-side management of water resources (water provision), focusing on water source development. However, far less attention has been paid to the demand-side management (water use) or integrated management of water resources at either the national or river basin level, which is perceived as the main issue for water resource management in the country (ONESDB, 2004).

[38] The Samak government's Administrative Plan (2008-2011) approved by the Cabinet on March 11, 2008.

[39] The Abhisit government's Administrative Plan (2009-2011) approved by the Cabinet on January 13, 2009.

[40] The Budget Act of the 2010 Fiscal Year for the DWR (compiled by Bureau of Water Resource Policy and Planning, DWR)

[41] 1€ = 41 Baht (approximated, as of December 2014)

4.2 Water bill and the river basin committee frameworks

4.2.1 Water bill: a background

Thailand has a number of laws on some provisions for water resources. According to THE AD HOC COMMITTEE ON THE STUDY OF EFFECTIVE WATER RESOURCE MANAGEMENT IN THAILAND (2003), there are 35 water-related laws, covering such areas as water use, water resource conservation and water pollution control. Of this number, 32 laws are still in effect and one is replaced by a new version (as of December 2014). However, there has never been a water law in which water resource issues are dealt with comprehensively. Thus, various aspects of water resource development and management are covered by varied laws with different public agencies concerned[42]. For example, water use for agriculture within the state irrigation area is under the State Irrigation Act of 1942, with the RID acting as the responsible agency, while the use of groundwater resources is regulated by the Groundwater Resources Act of 1977, and the Department of Groundwater Resources is the agency responsible.

Nevertheless, efforts have been made to promulgate a water law. The first attempt took place in 1992 when the National Research Council of Thailand drafted a first water bill. However, this bill and its subsequent revisions were never approved by the Cabinet, and they therefore failed to make it through to the promulgation process of the National Assembly (THE LEGAL AFFAIRS GROUP, 2010). With establishment of the DWR in 2002, a new round of attempts was made to pass this law because a reform of water-related laws and water bill preparation were two of its strategic goals (THE LEGAL AFFAIRS GROUP, 2010). Thus, the DWR together with the Thammasat University Research and Consultation Institute (TURCI) started to draft a water bill in 2003, formally entitled *the Water Resources Bill* (TURCI, 2004). Its revised version was endorsed by the Cabinet in May 2007 and subsequently sent to the Office of the Council of State (OCS) for vetting. Finally, the Cabinet submitted the bill for promulgation to the National Legislative Assembly (NLA) in October 2007. However, it was not passed[43].

Although the water law is not yet in place, and there is no possible way to predict when there will be one, the drafted water bill does provide a proximate direction in which public

[42] See also footnote no. 32.

[43] During this time, a group of NLA members submitted another water bill with the same title: Water Resources Bill, to the NLA for consideration.

agencies concerned need to pursue when it comes to water resource-related issues. This is reflected in various provisions such as those for water management organizations, water resource development and conservation, and flood control. In fact, the Office of the Prime Minister's Regulation on National Water Resource Management of 2007, which regulates the RBC framework under study, also was prepared based on provisions for 'water management organizations' in *the Water Resource Bill* mentioned (THE LEGAL AFFAIRS GROUP, 2008). Thus, to provide a comparative picture of the current RBC setup, the following section presents RBC frameworks envisioned by varying water bill versions, prepared in connection with the promulgation effort of 2007.

4.2.2 The RBC frameworks in the water bill

Throughout the promulgation process in 2007, the Water Resources Bill, which was drafted by the DWR and TURCI in 2003-4 (TURCI 2004) and approved by the Cabinet in 2007, was subsequently revised (hereafter called the Cabinet Bill). There were then two more drafts based on the Cabinet Bill: *the Water Resources Bill* vetted by the OSC in 2007, and the revised *Water Resources Bill* by the NLA Ad Hoc Committee on Water Resource Bill, which was the final version considered by the NLA for promulgation (hereafter known as the OSC Bill and the NLA Bill, respectively). Among other things, the three water bills contained provisions for water management organizations planned for creation at both the national and river basin level. A group of NLA members also submitted another water bill to the NLA[44], but it contained no provision regarding water management organizations.

In general, the three bills suggested establishing a water management organization at the national level (Figure 4.1), namely the National Water Resources Committee (NWRC), chaired by the Prime Minister or designated deputy prime minister, with NWRC members comprising ministers of the ministries concerned, such as the Ministry of Natural Resources and Environment (MNRE) and Ministry of Agriculture and Cooperatives (MOAC); senior officers from the public agencies concerned, e.g. the DWR and RID; representatives of the RBCs; and experts. The main tasks of the NWRC would include developing water policies and water management plans, and supervising their implementation. In addition, the NWRC would also supervise the operations of a water management organization at the river basin level (e.g. providing an operational directive).

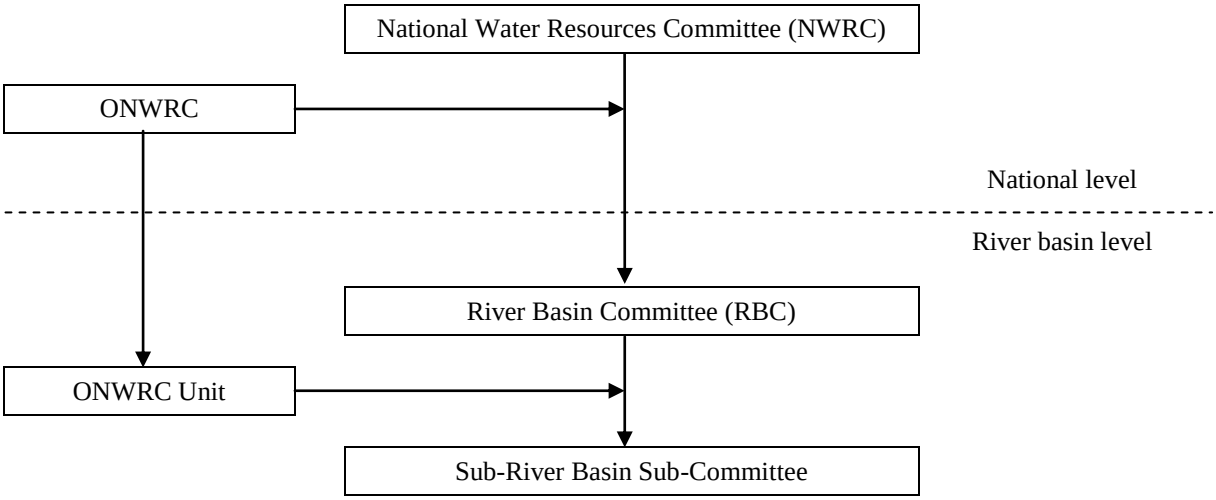
[44] See footnote no. 43

In supporting the NWRC, the Cabinet Bill and NLA Bill included provisions to establish a new government agency - the Office of National Water Resources Committee (ONWRC). The former indicated that the ONWRC was established as a DWR division to serve as the NWRC secretariat. The latter prescribed establishment of the ONWRC as a department under the MNRE within three years from the water law being enforced, and it would replace the DWR as the NWRC secretariat. The OSC Bill contained no such provision.

The three water bills, at the river basin level, indicated the establishment and demarcation of a river basin. In principle, they all envisioned a water management organization, i.e. a river basin committee (RBC), to be established for each river basin (Figure 4.1). Nevertheless, differences in details concerning the RBC framework stipulated in each bill can be observed; for example, the number of RBC members and the RBC term (e.g. a two-year term in the OSC Bill, or four-year term in the NLA Bill). All the designed frameworks, however, share a similar feature in terms of composition of the RBC members (Table 4.1). That is to say, the members represent the public sector (i.e. public agencies concerned) as well as water user organizations, and local government organizations (LGOs) that exist in respective river basins. These members assume their position by appointment, but a selection procedure will be applied to identify those individuals who are to be nominated. In addition, a certain number of experts are also nominated and appointed as RBC members. All of the bills also indicate that RBCs are authorized to appoint sub-committees for sub-river basins located in respective river basins by following the selection and appointment procedure set by the NWRC. This essentially creates a river basin organization with a two-layer structure, as described by JASPERS (2003) – the RBCs at the river basin level, and the sub-river basin sub-committees at the sub-river basin level.

The main tasks of the RBCs, as prescribed in the three bills, are to develop a water management plan for the respective river basin; and deal with water use issues, such as determining water use priority, and approving water permit requests. However, a notable distinction regarding the RBCs' mandates can be found in the Cabinet Bill, in which the RBCs are authorized to comment on water resource-related plans and projects proposed by provinces located in respective river basins before submitting for a national budget allocation. Furthermore, upon approval of the ministers concerned, the RBCs are also sanctioned to issue a river basin regulation, which may include penalties (fine and/or imprisonment).

Figure 4.1: The proposed structure of the water resource organization



Source: Based on the draft of the NLA Ad Hoc Committee on Water Resource Bill

Table 4.1: The composition of the river basin committee (RBC)

Type of the members	Number of the members
Representatives of government agencies concerned	10
Representatives of water user organizations	7
Representatives of local government organizations	3
Experts	4
WRO director/head of the ONWRC unit	1
Total	**25**

Source: Based on the draft of the NLA Ad Hoc Committee on Water Resource Bill

To perform the tasks mentioned above, all three bills indicate a similar arrangement: an organized meeting, where RBC members meet and make decisions. A quorum in a given meeting is attained when at least one half of the total number of RBC members attends. Each member has one vote, and a decision is made based on a majority vote. In the case of a tie, the chairperson casts the deciding vote. This arrangement also applies to the sub-river basin sub-committees (and other committees and sub-committees to be appointed). The RBC members (and members of the committees and sub-committees appointed by the RBCs) are prescribed by the bills to meet and make decisions on river basin-related issues. It can be seen that the RBCs and their committees and sub-committees are managed in a participant-governed form (PROVAN & KENIS, 2008; see Section 2.2.3).

Regarding the arrangement to support RBCs, both the Cabinet Bill and NLA Bill envisioned establishment of an RBC office in order to support the respective RBC. In addition, the former expressly indicated creation of a sub-river basin committee office, should such a sub-river basin be established and sub-committee appointed. However, there is no provision with regard to this aspect in the OSC Bill. The Cabinet Bill indicates creation of RBC offices/sub-river basin committee offices under the ONWRC, once the water law comes into effect. In contrast, the NLA Bill stipulates that the DWR's Water Resources Regional Office (WRO) serves as secretariat for the respective RBC, while its director also serves as the RBC member and secretary. However, in accordance with the provision to set up the ONWRC within three years from the law being placed, as previously mentioned, the ONWRC is then required to establish its units as RBC secretariat offices in order to replace WROs; with the heads of these units also assuming the position of RBC member and secretary, in the place of WRO directors. However, establishment of a sub-river basin committee office is not mentioned in the NLA Bill, even though it sanctions the RBCs to appoint such a committee.

4.3 Current water governance practices

This section presents current water governance practices taking place at the local level. The intention here is to provide an overview of present practices by which water resources are managed at the local level, as observed in the Mae Rim sub-river basin. These practices are illustrated by those performed by irrigation water user organizations of the Mae Tang Operation and Maintenance Project, and traditional water user groups (*muang fai* group). The roles of local government organizations in managing water resources are discussed briefly.

4.3.1 Irrigation water governance in the Mae Tang Operation and Maintenance Project

4.3.1.1 The Mae Tang Operation and Maintenance Project

The Mae Tang Operation and Maintenance Project is referred to commonly as the Mae Tang Irrigation Project (MIP), and one of the three National Operation and Maintenance Projects located in Chiang Mai province. It is under the RID Regional Irrigation Office 1. Completed in 1973, the MIP project area is 174,328 *rai* with an irrigation area of 99,298 *rai*, covering five districts of the province (MIP JOURNAL, 2010a, 2010b). This area not

only covers part of the Mae Rim sub-river basin, but also other sub-river basins of the Ping River basin, such as the Mae Tang and Mae Khan sub-river basins. The MIP only has one main canal, which is approximately 75 km long and passes through five districts with 23 main lateral canals to convey irrigation water to farms.

Regarding distribution of irrigation water, the MIP project area is divided into four sections along the main canal, and four MIP Operation and Maintenance (O&M) Sections (i.e. O&M Section 1 to 4) are responsible for these. These four Sections are subdivided further into 15 irrigation zones, with an officer assigned for each one. The MIP also has the Water Allocation and Irrigation System Development Section to facilitate irrigation water distribution, together with its irrigation water user organizations or 'integrated water users group (IWUG)', as termed formally by the RID (OFFICE OF PUBLIC PARTICIPATORY PROMOTION, 2009, p. 12).

4.3.1.2 Irrigation water user organizations

There are 13 IWUGs in the MIP project area. Generally, there is one IWUG for each irrigation zone, with the exception of Zones 3 to 5, which are organized under one single IWUG. IWUGs manage irrigation water at the farm level after it has been distributed into the lateral canals located in their irrigation zones. IWUG leaders were elected to serve a four year term by water users in respective irrigation zones. For example, a general meeting in IWUG Zone 7 was held for water users to elect water allocation chiefs of farm turnouts, who would form the IWUG Committee and elect its chairperson.

Meetings are organized to discuss water issues and crop production; once for rainy season cropping (June - November), and at least once for dry season cropping (December – May). The water users are required to pay a fee of 15 Baht/*rai*/year; of which, 10 baht is given to the water allocation chiefs as remuneration for their work in distributing water to individual farms. The rest is kept as a common fund for the groups[45]. They also are required to participate in the maintenance of field ditches (removing sediment and weeds), and the IWUGs levy a fine of 150-300 baht/day for those who fail to participate.

IWUGs in the MIP project area worked together in terms of water sharing through 1995 and 1996. Before that, the groups did not interact with each other. Conflicts occurred as all groups tried to take water and consequently none reached those located downstream from

[45] Of 5 baht, 1 baht is now contributed to the MWUA fund.

the main canal. Since then, IWUG leaders have met and negotiated this matter. In 2004, they managed to form a network of MIP water users. In 2009, the groups also registered as the Mae Tang Water User Association (MWUA) with a legal entity status[46]. Thus, when it comes to interaction with the MIP, the IWUGs did so collectively as a network, and now as a water user association. As such, a general meeting for the two parties is organized twice a year, one before dry season cropping and the other before rainy season cropping. Issues regarding water availability and crop production are discussed in these meetings. Meetings are held also during dry season cropping for discussing a water distribution schedule; twice or three times a month during water shortages and once a month in normal circumstances.

4.3.1.3 Water distribution

Generally, irrigation water is distributed simultaneously into the lateral canals for all IWUGs during rainy season cropping, when paddy rice is the main crop (Figure 4.2). Soybean is the main crop during dry season cropping, and as irrigation water is normally inadequate toward the latter part of that period, rotational water distribution is applied. Water distribution in this period can be seen as a two-step process, in which the first step involves the IWUGs (i.e. MWUA) and MIP, who discuss a schedule for rotational water distribution. The second step entails allocation of irrigation water within individual IWUGs, and is based on an agreed schedule.

In the first stage of rotational water distribution, the IWUGs called for a meeting with the MIP in order to discuss a rotation schedule, when the amount of water passing through the headgate into the main canal was approximately 10 m^3/second. However, the rotation schedule would be applied only when water was running at less than 8 m^3/second. In the case of water flowing at between 5 m^3 and 8 m^3/second, the rotation schedule was divided into two rounds. Therefore, the IWUGs located in the first two O&M Sections of the MIP project area (3 IWUGs) received water for 7 days and 7 nights during the first round. In the second round, those IWUGs located in the last two O&M Sections (10 IWUGs) received water for 8 days and 8 nights. In the case of water flow amounting to less than 5 m^3/second, the four-round schedule was used, with water distribution periods arranged as follows: 5 days and 5 nights for O&M Section 1 (2 IWUGs); 4 days and 4 nights for O&M Section 2 (1 IWUG); 7 days and 7 nights for O&M Section 3 (4 IWUGs); and, 5 days and 5 nights for O&M Section 4 (6 IWUGs).

[46] Based on the provision in the Civil and Commercial Code of 1925 (Book I, revised version of 1992)

Figure 4.2: The IWUG leaders and MIP officers regulating water flow in the main canal

Source: Own photograph

Based on the schedule officially announced by the MIP, the MIP officers concerned and IWUG chairpersons distributed irrigation water successively by starting from O&M Section 1 to O&M Section 4, and into the lateral canals. However, the schedule could be rearranged at the meetings between the IWUGs, in case adequate water was not distributed to water users in their areas, or more distribution time was needed.

The second stage of distribution started when irrigation water flowed into lateral canals and served particular IWUGs. At this stage, the water allocation chiefs of respective IWUGs distributed water with the farmers into individual farms, and this was facilitated by IWUG chairpersons. Various distribution arrangements were practiced by different IWUGs. For example, in IWUG Zone 7, water was directed into farm turnouts based on a 'day' basis, starting from the farm turnouts located at the tail portion of the lateral canal. The 'day' basis gave a number of days to particular farm turnouts; then, the water allocation chiefs allocated water to farms served by these farm turnouts within this period of time. This practice of water allocation also allowed farms that were located at the tail portion of ditches connecting to farm turnouts to receive their water first.

In contrast, water was distributed into farm turnouts on an 'hour' basis for IWUGs located in O&M Section 4 (IWUG Zone 10 to15). The number of hours given was calculated based

on the farming areas. By calculating these hours, the number of days for water allocation was then summed up for particular IWUGs. The water allocation chiefs allocated water to farms within the given periods, starting from those located at the head portions of the lateral canal and ditches. In this Section, water pumps also were used to feed water into the ditches.

According to the IWUG leaders, there are generally no conflicts regarding irrigation water rotation among the water users, as there are water allocation chiefs to manage this task. Registration of the IWUGs, as a water user association (i.e. the MWUA), also provides a legal basis for the groups as a whole. The MWUA can deal effectively with water users who are not group members, particularly public offices, which are now required to be MWUA members, and must follow the water rotation schedule.

4.3.2 Traditional irrigation system

The traditional irrigation system or *muang fai* is well known and has been practiced in northern Thailand since the sixth century (SURARERKS, 2006). COHEN and PEARSON (1998, p. 87) state that in this system, "*water is held back by artificial weir (*fai*) constructed on the river and is directed to individual plots by a system of primary, secondary and tertiary canals (*muang*) with the aid of smaller diversion weirs containing sluice gate (*tae*) and farm turn-outs (*tang*).*" An arrangement is made to regulate water distribution among water users in the system (i.e. a *muang fai* group) and maintain the weir and canals. In addition, contribution in terms of labor and materials also are required, and a fine is levied against those who fail to provide it. A fee in cash or in kind (i.e. unhusked rice) also is collected as remuneration for the leader of the group, who has the main duties of overseeing system maintenance and water distribution (e.g. NGAMWITTYAROJ & ADIRECKTRAKARN, 2007; OUNVICHIT, SATOH, CHANTANUSART, & YAMAOKA, 2006; SURARERKS, 2006).

In the Mae Rim sub-river basin, this system has been used by various communities, particularly those located outside the MIP project area, to convey water into their farms. For example, in San Payang sub-district, Mae Tang district, Chiang Mai province, there are 17 *muang fai* groups located in its six villages; two of which have up to four *muan fai* groups. Based on the *muang fai* leaders interviewed, *muang fai* group features generally resemble those briefly explained above. As an illustration, one *munag fai* group, the Na Huek *munag fai*, is presented here in more detail.

The Na Huek *munag fai* group has approximately 600 water users from four villages in Sa Luang sub-district and Houy Sai sub-district, Mae Rim district, Chiang Mai province. By growing paddy rice in both rainy (July/August-November) and dry season cropping (February-May), the group relies on a concrete weir constructed at the Mae Rim river (Figure 4.3) to direct water into a concrete canal serving first the water users in Ban Na Huek village (Sa Luang sub-district). This canal splits at its tail into two concrete canals (namely, the west and east canals) to convey water to water users in Ban Hor Fai, Ban Houy Sai, and Ban Nong Plaman villages (Houy Sai sub-district).

Regarding group management, the *munag fai* leader and his four assistants, who represent the four villages, were elected by the water users to serve a four-year term. Their main duties included water distribution in both rainy and dry season cropping, and arrangements for system maintenance. A fee of 25 Baht/*rai*/year was collected as their remuneration, and the total sum was divided equally among the five of them.

Figure 4.3: The weir of the Na Huek *muang fai* group located at the Mae Rim River

Source: Own photograph

A general meeting for the Na Huek *munag fai* group was organized once a year in May to discuss a schedule for system maintenance and financial matters as well as water distribution issues observed in the previous year. System maintenance was arranged twice a year: once in June and again around October, when the weir and canals were dredged.

The water users were required to supply laborers for these maintenance activities. Farms of less than 10 *rai* in size were obliged to contribute one laborer, while those larger than 10 *rai* contributed two. A fine of 300 Baht/day/laborer was imposed on water users who failed to comply. The fines were kept as the group's common fund, together with the fees collected, e.g. the annual fee of 300 Baht from occasional water users, who pump water from the canals. This fund was used for minor repairs to the canals. Requests for assistance in major canal repairs were made to the Houy Sai Sub-district (*tambon*) Administrative Organization (TAO) or RID office.

Water was distributed to all users during rainy season cropping as the quantity was generally adequate. During this period, water users adjusted their water intake on their own, while the group leader and his assistants helped to regulate water flow by adjusting the sluice gate located at the weir, or those situated at the head of the east or west canals.

Water availability was generally low toward the end of dry season cropping (latter part of March to mid-April), and water rotation was practiced during this time. A meeting between the group leader and his assistants was held to discuss a rotation schedule, which normally applied to the three villages of Houy Sai sub-district, where around 500 users took water from the east and west canals. Water was scheduled for alternate direction into each canal from one to three/four days, depending on availability. The agricultural area was divided into three portions along the two canals: head, middle and tail. The users drawing water from the west canal would receive it first, starting from the head portion. Normally, a three-day distribution period was long enough for users to obtain adequate water, as each portion would receive water for one day. The group leader and his assistants coordinated with individual farmers in distributing water into ditches and fields during this time. However, when water availability was considerably low, the rotation schedule was also applied to Ban Na Huek village (Sa Lung sub-district), located at the head portion of the canal system. In this case, a three-day distribution period was alternated among the three canals, starting from the Ban Na Huek village area, and followed by the west and east canals, respectively.

According to the group leader, there was no conflict over irrigation water. Generally, the users received adequate water within each respective distribution period. A water pump was made available (borrowed from the RID office) as a precaution during water rotation periods, just in case water needed to be pumped into the canal system.

4.3.3 Roles of local government organizations on water governance

The Mae Rim sub-river basin fully or partially covers the area of 13 sub-districts located in Sa Meorng, Mae Tang, and Mae Rim district, Chiang Mai province. Typically, each sub-district has one local government organization (LGO); thus, there are 13 LGOs in the sub-river basin. Of the 13 LGOs, nine are Sub-district (*tambon*) Administrative Organizations (TAOs) and four are Sub-district Municipalities (SMs)[47]. The two types of LGOs are mandated to develop their respective sub-districts with specific tasks indicated in the laws concerned, e.g. infrastructure development, provision of water for consumption and agriculture, disaster prevention and relief, and promotion and support for the development of children and women. With a four-year term, the mayors, and both TAO and SM council members are elected directly by the constituencies in their sub-districts to perform the mandated tasks.

The LGOs generally played a supporting role when focusing on water governance by complementing water user organizations; be they irrigation water user groups or *munag fai* groups. That is to say, the LGOs did not engage in irrigation water management directly, but rather provided support, particularly in kind, to water users groups. For example, Khee Lek sub-district (Mae Rim district) relied on the MIP for irrigation water, and on the irrigation water user group (i.e. the IWUG Zone 2) for water distributed to individual farmers. The Khee Lek TAO was not involved with IWUG Zone 2 in this matter. However, it provided support to the group in terms of fuel for a water pump (borrowed from the MIP) during a water shortage period. This helped the group to pump water from the main canal and into lateral ones. Water user groups were supported in a similar manner by other LGOs in their location such as the Sa Loung TAO (Mae Rim district) and San Payang TAO (Mae Tang district). According to the leader of IWUG Zone 1, located in the Mae Tang sub-river basin (Mae Tang district), his group received support by way of fuel for a water pump from the LGOs concerned in the area, such as the San Mahapon SM and Mae Tang TAO.

[47] As presented in Section 2.4, there are three main forms of LGOs in Thailand: 1) provincial administrative organization, 2) municipality, and 3) TAO. The municipality is classified further into three types: sub-district municipality (SM), town municipality, and city municipality. The TAO and SM concerned here share a rather similar scope of mandated tasks. However, the main distinction between the two is probably the structure of their councils. The TAO council generally consists of members representing all villages located in a particular sub-district (two representatives for each village). In contrast, the SM council has a fixed number of 12 members, as the SM jurisdiction is divided into two zones; with each zone having six representatives.

In addition, the LGOs also provided support for maintaining weirs, canals and ditches. This support came in different forms and channels. The LGOs provided materials in the form of fuel and items for repairing irrigation structures in an ad hoc manner when receiving requests from water user groups; for example, sandbags to reinforce dirt canals used by the *muang fai* groups (e.g. the Sa Lung TAO), or building materials for repairing damaged concrete canals, as provided to the Na Huek *muang fai* group by Houy Sai TAO. The LGOs also provided regular support through regular channels, that is to say, through development projects. In this case, the water user groups had to propose projects to the LGOs such as weir reparation or canal paving. When approved, these projects were implemented by the LGOs in a given fiscal year. Occasionally, the LGOs also built structures for irrigation water such as the weir for *muang fai* groups by the Sop Perng TAO in the 2010 fiscal year, and five reservoirs by the San Payang TAO in the 2009 fiscal year.

4.4 The RBC frameworks

This section discusses the RBC framework, which was implemented by the DWR. Since being first introduced in 2002, the RBC framework has had two versions; the current version replaced the previous one in 2007. Thus, this section begins with a discussion on the 2002 RBC framework and its implementation by taking the Upper Ping River Sub-Committee as a point of illustration. The current version of the 2007 RBC framework is then presented, and an overview of its implementation is also shown.

4.4.1 The 2002 RBC framework

4.4.1.1 Legal framework

The RBC framework was first introduced by the Office of the Prime Minister's Regulation on National Water Resource Management (No.2) of 2002. This Regulation was an amendment of that issued in 1989, by which the National Water Resources Committee (NWRC) was established. The NWRC was chaired by the Prime minister, who also appointed its members. Its main mandate was to provide recommendations on water source development. Based on this establishment, the 2002 Regulation authorized the NWRC to appoint '*a river basin sub-committee*' for river basins across the country.

The 2002 Regulation contained no provision for the number of river basin sub-committee members. It only indicated that the sub-committee consisted of selected government

officers; representatives of state owned enterprises, LGOs, and water user organizations; and stakeholders, who worked or lived in respective river basins. In addition, experts with knowledge of and experience in water resource management were included as sub-committee members. The chairperson and secretary of each river basin sub-committee were selected from its members. According to the 2002 Regulation, there was no fixed serving term for the river basin sub-committee.

The 2002 Regulation also outlined various mandates for the river basin sub-committee. These tasks included, for example, providing recommendations on water resource management for the NWRC; creating a water resource management plan for the respective river basin; coordinating with the public agencies concerned in the river basin, in order to have action plans that were congruent with the river basin's water resource management plan; prioritizing water use as well as determining the quantity of water to be used and water allocation measures; and solving conflicts and problems regarding water resource management in the river basin. Also, the sub-river basin committee was authorized to appoint a working group.

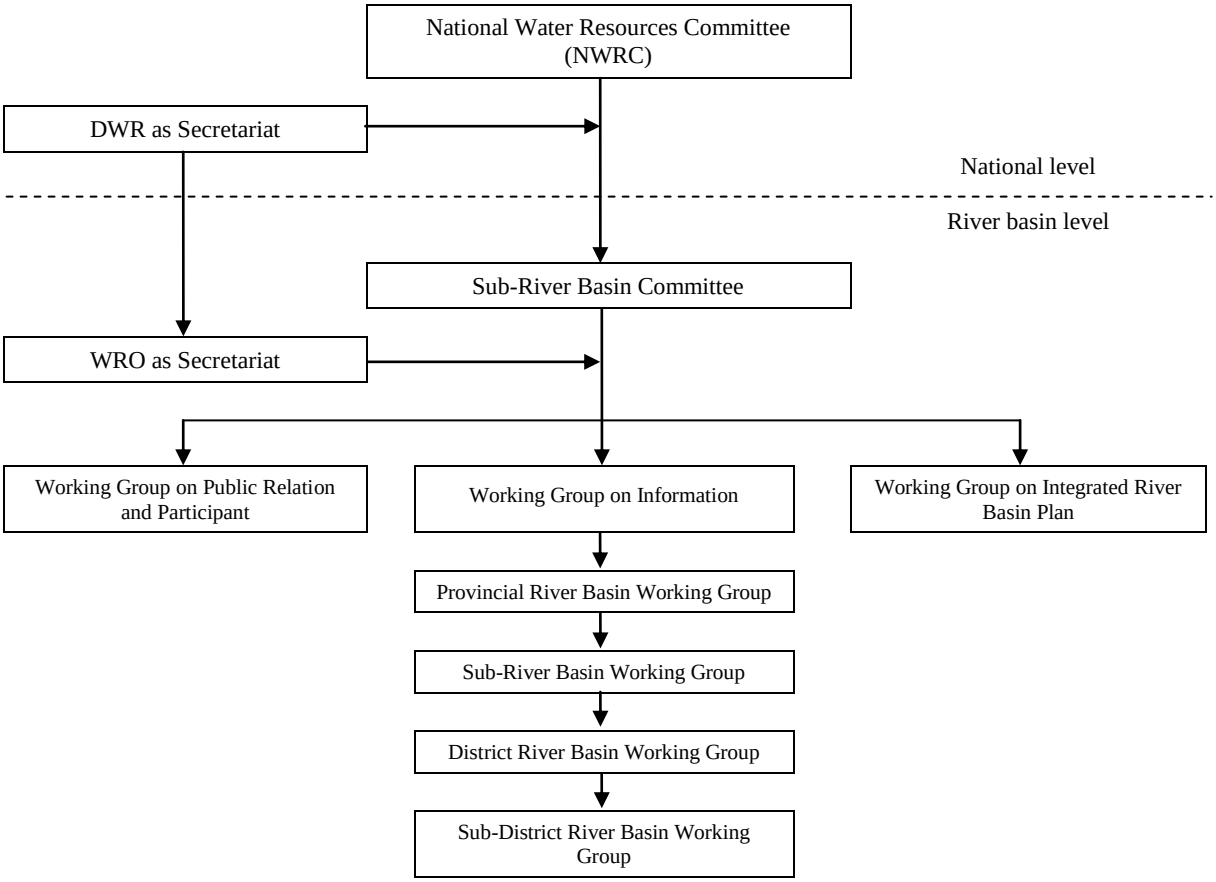
4.4.1.2 Implementation of the 2002 RBC framework

Implementation of the 2002 RBC framework started in February 2003, with appointment of the new NWRC. After bureaucratic reform in 2002, the DWR became the NWRC secretariat, with the DWR director general serving as NWRC secretary.

By its Bureau of Mass Promotion and Coordination (BMPC), the DWR also outlined the structure of the sub-river basin committee. It consisted of three working groups at the river basin level; and, the working groups for provinces, sub-river basins, districts and sub-districts (BMPC, 2003; see Figure 4.4). Apparently, the structure was based on that of the river basin pilot projects implemented in the Upper Ping, Lower Ping, and Pasak River Basins from 1999 to 2001 (PATTANEE, 2003a, 2003b, 2003c). It can be seen that this structure was based on provincial administration, as the working groups were created at the provincial, district, and sub-district level (cf. Figure 2.1 and JASPERS, 2003). The DWR also laid out establishment processes for the sub-committee and working groups. Its nationwide Water Resources Regional Offices (WROs) were assigned with the tasks, among others, of supporting establishment of the river basin sub-committees and working groups, and serving as their secretariat. By 2006, 29 river basin sub-committees were appointed for 29 river basins. A number of working groups also were appointed (DWR,

2006; see Table 4.2). To illustrate implementation of the 2002 RBC framework, an example of the Upper Ping River Basin Sub-Committee is presented in the following section.

Figure 4.4: The structure of the 2002 RBC framework



Source: Based on the 2002 Regulation, and DWR (2006, p. 10)

Table 4.2: River basin sub-committees and working groups located in the WRO 1 area

River basin	Sub-committee*	Working groups*				
		River basin level	Provincial level	Sub-river basin level	District level	Sub-district level
Upper Ping	1/37	3/83	2/44	15/360	29/625	228/8,940
Lower Ping	1/31	3/101	3/68	-	17/410	132/3,246
Wang	1/26	3/64	2/38	-	14/154	94/7,707
Khong Part I and Kok	1/25	3/78	3/106	-	28/603	201/4,343
Salawin	1/30	3/86	2/56	-	11/178	72/1,246

Source: Adapted from the DWR (2006, p. 16)

*Number of sub-committees/ working group members

4.4.1.3 The upper Ping river basin sub-committee

Establishment

The Upper Ping River Basin Sub-Committee was appointed by the NWRC in August 2003. It consisted of 37 members who represented both the public and non-public sector (Table 4.3). Apart from the two provincial governors and two DWR officers, the NWRC Appointment Order did not specify a name of any individuals or particular officers as sub-committee members. Therefore, the public agencies and state owned enterprises, which were indicated in the NWRC Appointment Order, had to assign their officers as representatives who sat on the sub-committee. According to a URCMS officer, non-public sector representatives were nominated by their counterparts during a general meeting held by the URCMS, and they became the sub-committee members representing particular groups, e.g. agricultural water user groups.

Table 4.3: The members of the Upper Ping River Basin Sub-Committee

Member	Number
Provincial governor	2
Public agencies	11
State owned enterprise	1
Water user groups/organization (agriculture)	15
Water user groups/organization (business/industry)	2
Local government organization	2
Civic sector/NGOs working on natural resources or the environment	2
Educational institution/experts on natural resources or the environment	2
Total	**37**

Source: The NWRC Order No.21/2546, dated August 21, 2003

The first meeting of the sub-committee was held in January 2004 by the URCMS. In this meeting, the chairperson, vice-chairperson, secretary and assistant secretary of the sub-committee were selected. The two provincial governors were nominated as the chairperson and vice-chairperson, respectively, while the WRO 1 director and URCMS director were nominated as the secretary and assistant secretary, respectively. To complete the structure of the river basin sub-committee, as showed in Figure 4.4, the compositions and mandates of the three working groups at the river basin level, and those of the working groups at the provincial, sub-river basin, and district and sub-district levels also were presented and

approved in this first meeting. This led to appointments of the working groups at different levels for the entire Upper Ping River Basin (see Table 4.2).

Functions

The 2002 Regulation stipulated various mandates for the river basin sub-committee, as in the examples given earlier. However, it was observed that the Upper Ping River Basin Sub-Committee performed just one function, which related to water resource management planning. This was reflected by the Sub-Committee's six meetings held throughout its existence from 2004 to 2007[48]. During this period, the meetings appeared to be the Sub-Committee's only activity. As they were organized by the URCMS, the main agenda always focused on approving a water resource management plan, which was also a URCMS mandate. Thus, the main output generated by the Sub-Committee was limited with regard to such plans.

To fully appreciate the function of the Upper Ping River Basin Sub-Committee in this regard, the nature of the so-called water resource management plan needs to be clarified. Evidently, this plan was a collection of water resources-related programs or projects intended for implementation by public agencies or LGOs in the Upper Ping River Basin. Thus, it was not a guideline or strategy by which these public agencies or LGOs could follow in their planning process (e.g. BRAGA & LOTUFO, 2008). The URMCS, as the Sub-Committee Secretariat, collected the relevant programs and projects from the LGOs via the meetings held for working groups at the district level. It also requested that the public agencies involved send in their related programs and projects. Apparently, the Sub-Committee was not involved in planning the programs and projects collected. The approval of this so-called water resource management plan also appeared to be in a procedural rather than substantive decision making process. As observed from reports of a meeting, no deliberation or critical considerations were made regarding the plan, after it was presented to the Sub-Committee.

[48] During the same period, few meetings (i.e. activities) were held for the other working groups appointed. For example, six meetings were organized for the Working Group on the Integrated River Basin Plan, while three meetings were arranged for each of the two provincial river basin working groups (Chiang Mai and Lamphun provinces), with the main focus on the water resource management plan. No meeting, however, was organized for working groups at the sub-river basin and sub-district level. Thus, these working groups were truly a '*paper committee*' because they existed '*on paper only*' (ABERS, 2007, p. 1543) throughout the period in which the 2002 RBC framework was implemented.

It should be noted that the 2002 Regulation did not indicate how the river basin sub-committees or their working groups were managed (cf. the 2007 Regulation in Section 4.4.2). However, members of the governing bodies concerned were meant to make decisions collectively in the meetings held, and so it can be conceived in theory that this arrangement followed the participant-governed form suggested by PROVAN and KENIS (2008). Evidently, as presented above, the URCMS and WRO 1 played a pivotal role concerning the meetings and water resource management plans, which were the only activity of and output from the Upper Ping River Basin Sub-Committee and its governing bodies. Thus, they were managed in practice by the lead organization governed form (PROVAN & KENIS, 2008) led by the URCMS and WRO 1. As this management form is characterized by centralization, it does not seem to support collaborative water governance, underlined by shared-decision making power and participation (see Section 2.3.1).

Overall, functions performed by the Upper Ping River Basin Sub-Committee were very limited. Within the function on water resource management planning, the actual role of the Sub-Committee was confined to a mere procedural approval of the so-called water resource management plan. This clearly indicates both limited involvement and decision making power of the Sub-Committee on the one hand, and the central role played by the URCMS (and by extension, DWR) in this setup on the other. These aspects were also observed in implementation of the current RBC framework, as presented Chapter 5.

4.4.2 The 2007 RBC framework

4.4.2.1 Legal framework

The current RBC framework is regulated by the Office of the Prime Minister's Regulation on National Water Resource Management of 2007, which replaced the 2002 RBC framework. The 2007 Regulation stipulates establishment of a new National Water Resources Committee and river basin committees, with details as follows.

4.4.2.2 The National Water Resources Committee (NWRC)

The 2007 Regulation indicates the composition of NWRC members with no fixed maximum number. Chaired by the Prime Minister or designated deputy Prime Minister, ministers of the Ministry of Natural Resources and Environment (MNRE), Ministry of Agriculture and Cooperatives (MOAC), and Ministry of Science and Technology (MOST) serve as the first, second and third vice-chairperson, respectively. The DWR director

general is designated as the NWRC member and secretary; and other members include representatives of public agencies and experts appointed by the Prime Minister. No fixed term is given for the NWRC as a whole, but a four-year term is prescribed for the appointed experts.

The NWRC is mandated with various tasks, which include, for example, providing recommendations for the Cabinet (e.g. on issues regarding the water resource management policy); approving rules and regulations proposed by a river basin committee (RBC); and monitoring, coordinating, and supporting water resources-related operations. To assist the NWRC, the 2007 Regulation designates the DWR to serve as the NWRC secretariat, with tasks such as coordinating with river basin secretariats, and providing directions for water resource management planning to the RBCs, public agencies and LGOs.

4.4.2.3 The river basin committee (RBC)

The 2007 Regulation states that the NWRC appoints an RBC for each river basin. With the maximum number of 35 members and a balance between members representing the public and non-public sector, RBC members comprise representatives of public agencies, LGOs, and water user organizations. In addition, experts who have knowledge of and experience in water resource management also are appointed as RBC members. All RBC members must work or live in the respective river basin. The RBC chairperson is selected by RBC members, while the WRO director concerned is designated as an RBC member and the secretary. Like the NWRC, the 2007 Regulation does not specify a fixed term for the RBC as a whole, except for the expert members, who serve a four-year term.

The mandates given to the RBC by the 2007 Regulation are similar essentially to those of the river basin sub-committee, as stipulated by the 2002 Regulation (see Section 4.4.1), with exception that the RBC is charged as well with the task of supporting LGOs in managing water resources in small-scale water sources. To illustrate the extent of RBC mandates, a full list is provided in Box 4.2.

The 2007 Regulation indicates that an RBC meeting must follow the related provisions specified in the Administrative Procedure Act of 1996. Of these related provisions, there are two key stipulations: a quorum in a given meeting is attained when at least one half of the total number of respective committee members attend (Article 79); and, a decision is made based on a majority vote, given that each committee member has one vote. In the event of a tie, the chairperson casts the deciding vote (Article 82). When applied to the

RBC, it is suggested that RBC members participate in decision making in order to fulfill its mandates. This also implies that, in theory, the RBC is managed by the participant-governed form (PROVAN & KENIS, 2008), where ideally all RBC members (or at least half of them) take part in making decisions on river basin-related issues specified in their mandates. The 2007 Regulation indicates further that the WRO concerned serves as the RBC secretariat, with tasks as presented in Box 4.3.

Box 4.2: Mandates of the river basin committee (RBC) by the 2007 Regulation

1. To provide recommendations to the NWRC on the formation of policies, programs, projects and problem solving methods regarding water resource management; and, on the operations of the public agencies, LGOs and private organizations concerned in the river basin.
2. To prepare a plan for water resource management for the river basin.
3. To coordinate with the public agencies and LGOs concerned in the river basin in order to make their action and budget plans congruent with the water resource management plan mentioned, and the budget framework recommended to the Cabinet by the NWRC.
4. To prioritize and determine the quantity of water to be used; and create a fair and effective water allocation measure based on water availability.
5. To monitor and evaluate operations of the water resource-related government agencies in the river basin.
6. To promote, support and provide recommendations to LGOs with regard to water resource management in small-scale water sources.
7. To make requests for data and facts on water resources in order to compile statistics, data, opinions, and recommendations for water resource management in the river basin.
8. To mediate in conflicts, and solve problems relating to water resource management in the river basin.
9. To coordinate operations relating to water resource management with other RBCs concerned.
10. To disseminate and publicize water resource management matters, and seek opinions as well as create a better understanding of these matters from the public.
11. To appoint a sub-committee or working group to perform tasks assigned by the RBC.
12. To perform other tasks assigned by the NWRC.

Source: The 2007 Regulation

Box 4.3: Mandates of the RBC secretariat

1. To perform secretarial tasks for the RBC and coordinate with the NWRC secretariat and other RBC secretariats
2. To collect data, opinions, suggestions and information related to water resource management and present them to the RBC for preparing a water resource management plan and solving water resource management problems in respective river basins
3. To collect action and budget plans from the public agencies concerned, and LGOs in respective river basins, and present them to the RBC for preparing a water resource management plan for a particular river basin
4. To build capacity for water resource management, and publicize water resource management matters
5. To perform other tasks assigned by the NWRC or RBC

Source: The 2007 Regulation

4.4.2.4 Implementation of the 2007 RBC framework: an overview

The National Water Resources Committee (NWRC)

Like its 2002 predecessor, implementation of the current RBC framework started with appointment of a new NWRC. The first appointment was issued on October 4, 2007, with a total of only 26 members representing just the public sector and expert group. The additional appointment was made on March 12, 2009, with nine representatives from 25 RBCs, and three from the LGOs, to act as NWRC members under the 'expert' group, as well as two more representatives from the public sector. On November 16, 2009, one additional representative was appointed from the private sector, as an NWRC member under the expert group. Thus, the NWRC consists of 41 members, of which those representing the non-public sector are all subsumed under the expert group (Table 4.4).

Twelve NWRC meetings were held irregularly from October 2007 to December 2010. However, no meeting has been organized since 2011 (as of January 2014). It can be observed from the meeting reports that the NWRC has so far played a minimal role in setting directions for water resource management at the national level, which goes against the mandates given. Although it is viewed as 'the national water sector apex body' (ADB, 2006) the NWRC has been employed largely by the MNRE and DWR in order to legitimize and support their work. An illustrating example is the water grid project (feasibility study) that was implemented in northeast Thailand. In this project, the NWRC legitimized the project proposal before submitting it to the Cabinet, and three out of four NWRC meetings held in 2010 were dominated by this issue.

When focusing on the RBC framework, the NWRC is authorized to appoint RBCs and required to oversee their operations. In practice, however, the DWR, as secretariat to the NWRC, has carried out all the work regarding this. From meeting reports, the NWRC only acknowledged and approved proposals or reports regarding the RBC work presented by the DWR. Apart from the official appointment of RBCs, all of the RBC-related work has been executed by the DWR via its regional units, i.e. WROs. Thus, the NWRC also plays a limited role in this aspect.

Table 4.4: The members of the Nation Water Resources Committee (NWRC)

Members	Number
Public sector	
- Designated Deputy Prime Minister and MNRE, MOAC, and MOST ministers	4
- Senior public officers (e.g. permanent secretaries, and director generals)	17
Expert group	
- Experts	7
- Representatives from RBCs	9
- Representatives from LGOs	
• Representative from the National Municipal League of Thailand	1
• Representative from the Provincial Administrative Organization Association of Thailand	1
• Representative from the Sub-district (*tambon*) Administrative Organization Association of Thailand	1
- Representative from the Federation of Thai Industries	1
Total	**41**

Source: The Orders of the Office of the Prime Minister No. 244/2550 (2007), No. 80/2552 (2009), and No. 253/2552 (2009)

The River basin committee (RBC)

The DWR, as secretariat to the NWRC, prepared a draft of the NWRC Announcement on Qualification, Nomination Procedure, Appointment, and Term and Termination of Office of the River Basin Committee Members, in order to establish the RBCs following the 2007 Regulation, and presented it to the NWRC. The NWRC approved the draft and issued the Announcement on June 24, 2008, thus officially starting the establishment process of the 25 RBCs.

The NWRC Announcement of 2008 outlined in detail, the qualifications, nomination and appointment procedure, and term and termination of RBC members. Thus, certain qualifications[49] were specified for individuals to be eligible for appointment as RBC members and represent water user organizations and LGOs, or be RBC expert members.

The water user organizations were classified into three groups: 1) agriculture, 2) industry, and 3) commerce, service and tourism. In general, individuals eligible to represent each of the three groups must have an occupation relating to the respective group (e.g. a person must have an agricultural occupation to represent the water user organizations in the agriculture sector). LGO executives (e.g. mayors) are the only persons eligible to represent LGOs, and those standing for nomination as expert members must be representatives from educational institutions, private organizations or NGOs involved in environmental and natural resources or river basin management; or they must have relevant knowledge and experience.

Based on the NWRC Announcement, a provincial recruitment sub-committee was appointed for each province in order to identify persons qualified for nomination and appointment as RBC members. Chaired by the provincial governor, this sub-committee had ten members that included, for instance, Mayor of the PAO, President of the Provincial Chamber of Commerce, and Chief of the Provincial Office of Agriculture and Co-Operatives. The WRO director concerned served as the provincial sub-committee member and secretary, and the Chief of the Provincial Office of Natural Resources and Environment was a member and assistant secretary.

The above mentioned provincial sub-committees identified eligible persons, based on procedure detailed in the NWRC Announcement, in which the maximum number of eligible persons to be identified was also indicated. For example, two to four qualified persons should be nominated for each of the three groups under the water user organizations mentioned earlier, with a maximum of nine persons in total. Also, the provincial sub-committee was instructed to coordinate with agriculture-related government offices at the provincial level, e.g. the Agricultural Extension Provincial Office and Fisheries Provincial Office, and ask them to recommend individuals for nomination as representatives for agricultural water user organizations. After qualified persons from water user organizations and LGOs, as well as eligible experts, were identified and

[49] This qualification is applied to potential RBC members representing the non-public sector, which includes LGOs (the NWRC meeting report No. 3/2551).

nominated, the DWR organized a meeting for these individuals in order that they could select representatives from among themselves. Then, the NWRC officially appointed the selected individuals as members for respective RBCs.

The recruitment process mentioned above was carried out to complement the NWRC Orders on the RBC Appointment, issued on August 1, 2008 for all 25 river basins. These Orders indicated only the number of RBC members representing each group of the non-public sector, but did not specify them by name (Table 4.5). Regarding RBC members, who represent the public sector, the Orders indicated only *ex officio* members (i.e. the provincial governors and WRO directors concerned), and public agencies involved in particular RBCs. To identify individual members representing these public agencies in the RBCs concerned, the NWRC Announcement required the DWR to ask these members to appoint the officers who worked in their respective river basins.

As the 2007 Regulation does not specify length of the term for RBC members, except for the four-year term applied to expert members, the NWRC Announcement stipulates that members representing water user organizations and LGOs serve a four-year term as well. Apart from general causes terminating the office (e.g. end of the term or death), RBC members representing LGOs are relieved from RBCs when they are no longer LGO executives, and members representing the public sector are relieved when they no long work in respective river basins. RBC members also may be dismissed by the NWRC chairperson upon a two-thirds majority vote from the RBCs concerned, due to misprision, infamous conduct or lack of ability.

All of the processes outlined in the NWRC Announcement were implemented by the DWR through its WROs. Selected individuals representing water user organizations and LGOs, and selected experts, were finally appointed by the NWRC on December 1, 2008. The NWRC Announcement also required the DWR to organize a meeting for the 25 RBCs, with an agenda to select a chairperson and two vice-chairpersons. By January 2009, the first meeting had been held for 22 RBCs, and a meeting for the remaining three RBCs was scheduled for within the first week of February in the same year[50]. Thus, the establishment process of 25 RBCs was completed by the end of February 2009.

[50] The DWR executives meeting report, No.1/2552

Table 4.5: The RBCs located in the WRO 1 area

Members	RBC			
	Ping	**Kok and Khong (North)**	**Salawin**	**Wang**
	Number of members			
The public sector				
Provincial governor	4	2	1	2
Government Public Relations Department	1	-	-	-
Royal Irrigation Department	1	1	1	1
Land Development Department	1	1	1	1
Department of Agricultural Extension	1	1	-	1
Marine Department	1	1	1	1
Office of the Permanent Secretary, MNRE	1	1	1	1
Royal Forestry Department	-	1	-	1
Department of Water Resources	1	1	1	1
Department of Groundwater Resources	1	1	1	1
National Park, Wildlife, and Plant Conservation Department	1	1	1	1
Department of Disaster Prevention and Mitigation	1	1	1	1
Department of Local Administration	1	1	-	1
Department of Public Works, and Town and Country Planning	-	-	1	1
Department of Alternative Energy Development and Efficiency	-	-	1	-
Department of Industrial Works	-	-	-	1
The Electricity Generating Authority of Thailand	1	-	-	-
Director of WRO 1	1	1	1	1

Table 4.5: The RBCs located in the WRO 1 area (continued)

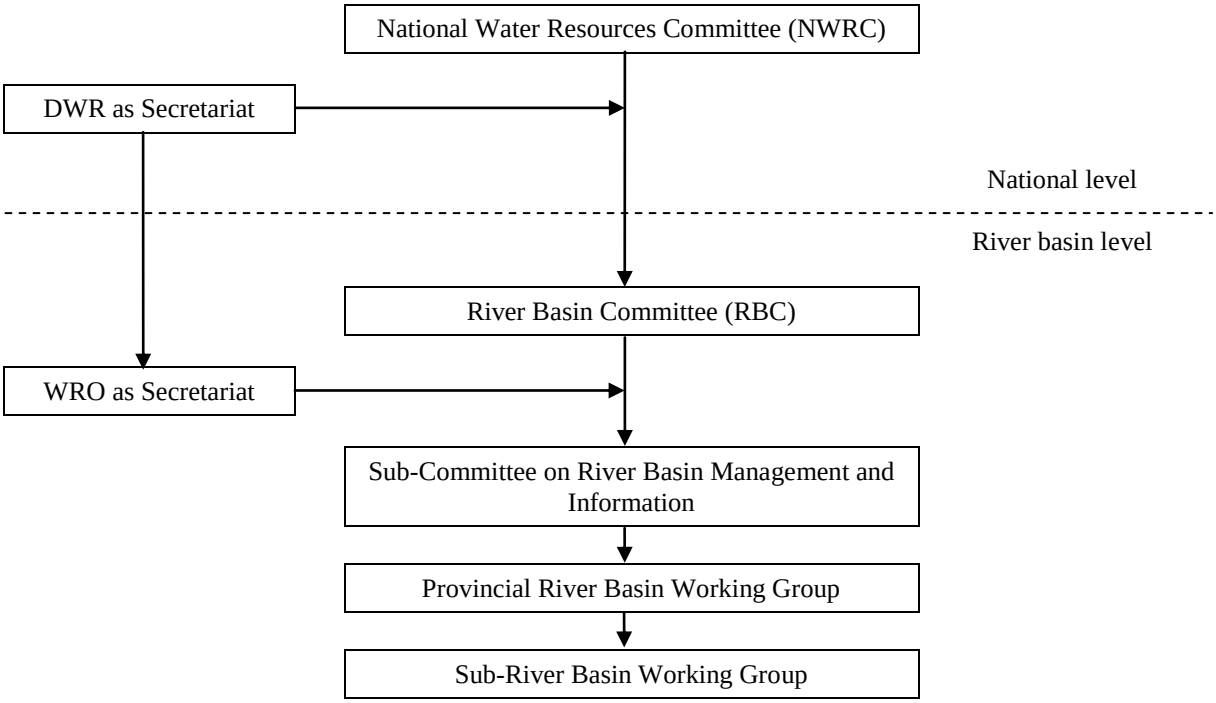
Members	RBC			
	Ping	Kok and Khong (North)	Salawin	Wang
	Number of members			
The non-public sector				
Representatives of local government organizations (LGOs)	3	3	3	3
Representatives of water user organizations (agriculture)	5	3	3	4
Representatives of water user organizations (industry)	3	3	1	4
Representatives of water user organizations (commerce, services, and tourism)	2	3	2	2
Experts	4	3	3	4
Total	**34**	**29**	**24**	**33**

Source: The NWRC Orders on the RBC Appointment (for the respective RBCs), dated August 1, 2008

As it appeared, the new RBC structure was introduced by the DWR[51]. That is to say, there is only one sub-committee at the river basin level, i.e. the sub-committee on river basin management and information, compared to three working groups implemented under the 2002 RBC framework (cf. Figure 4.4). Also, sub-committees or working groups are established only at the provincial and sub-river basin level, and no working groups are set up at the district and sub-district level (Figure 4.5). In a way, the structure indicates an attempt to depart from provincial administration, which is prominent in the 2002 RBC framework (cf. Figure 2.1 and Figure 4.4). Given that the sub-committee in this new structure is located also at the river basin level, it came close to the two-layer river basin organization structure described by JASPERS (2003). However, it should be noted that in the Thai case one more layer was added as 'a provincial river basin working group', located between the river basin and sub-basin level (see Figure 4.5).

[51] According to the meeting document of the Ping River Basin Sub-Committee for River Basin Management and Information, the RBC structure was prepared by the DWR acting as the NWRC secretariat (meeting No. 1/2552).

Figure 4.5: The structure of the 2007 RBC framework



Source: Adapted from the Ping RBC meeting agenda (meeting No.1/2009)

4.5 Chapter summary

This chapter presented recent water resources-related policies such as the Nation Water Policy, and others indicated in main policy documents, including the government's Policy Statements, and Administrative Plans as well as the Five-Year National Economic and Social Development Plans. Apparently, water resources have always been on the government's agenda. However, it is also clear that emphasis has been placed on water source development, while integrated water resource management at the river basin level and public participation has received less attention.

The chapter also discussed the three water bills. Although none were promulgated as law, certain directions, especially regarding the RBC framework, could be observed. Indeed, the RBC framework under study was stipulated by a legal document, in which some of its provisions were derived from one of these three water bills. An overview of this RBC framework and its implementation was presented. In addition, its predecessor, the 2002 RBC framework and its implementation, was outlined as well. Evidently, the 2002 RBC framework was characterized by limited participation and lack of authority from the river basin governing bodies; as well as the central role of the DWR.

As the RBC framework is being implemented in river basins nationwide, water governance has been practiced also at the local level, as observed at the Mae Rim sub-river basin. In this area, irrigation water users groups (IWUGs) managed irrigation water together with the MIP, which was the irrigation office responsible. There also are traditional water user groups, or *muang fai* groups, managing water for their members. In addition, it was found that the LGOs were involved indirectly in local water governance by providing support such as fuel and building materials to the water user groups. Overall, local water user groups function well in managing water resources for their members.

5. IMPLEMENTING COLLABORATIVE WATER GOVERNANCE: THE PING RIVER BASIN COMMITTEE

The previous chapter (4.4.2) presented a brief overview of the 2007 RBC framework and its implementation. This chapter discusses in detail how the framework has been carried out on the ground by using the Ping River Basin Committee as a point of illustration. It begins with formation of the Ping RBC by covering the nomination and appointment processes of the RBC members and their background, as well as formation of the Ping RBC's governing bodies. Then, the management of the Ping RBC and its governing bodies are presented, when details on the Water Resources Regional Office 1 (WRO 1), and its designated unit for this RBC, are covered as well. The chapter continues with discussion on collaborative processes, participation and functions as well as outcomes of the Ping RBC and its governing bodies.

5.1 Formations of the Ping RBC and its governing bodies

5.1.1 The formation of the Ping RBC

As mentioned in Section 4.4.2, the NWRC officially appointed the RBCs for 25 river basins under the 2007 Regulation. However, the NWRC Appointment Orders indicated only the number of RBC members represented by the non-public sector and public agencies. Based on the NWRC Announcement of 2008, the NWRC appointed a provincial recruitment sub-committee for each province in order to identify eligible persons for nomination as RBC members from the non-public sector. This Announcement also requested that the public agencies involved, in particular RBCs, assign their officers to represent them in these committees. The following sections explain the two nomination processes conducted for the Ping RBC.

5.1.1.1 The nomination process for the non-public sector members of the Ping RBC

The provincial recruitment sub-committees

The Ping River Basin covers five provinces (see Figure 3.1); thus, five provincial recruitment sub-committees were appointed to identify potential candidates for non-public sector members of the Ping RBC. As previously mentioned in Section 3.2, the Ping River Basin is under the responsibility of the URCMS and LRCMS, both of which are line units

of WRO 1. Administratively, the Ping River Basin is divided into the upper part (known as the Upper Ping River Basin) and the lower part (called the Lower Ping River Basin). The URCMS and LRCMS are responsible for the upper part, covering Chiang Mai, and Lamphun, and lower part, covering Tak, Kampaengphet and Nakhonsawan, respectively, and they essentially resemble the same administrative structure as before implementation of the 2007 Regulation (see Section 3.2 and Figure 3.1).

As this study placed emphasis on the upper part of the Ping River Basin, the two provincial recruitment sub-committees for Chiang Mai and Lamphun are discussed herein. By following the NWRC Appointment Order of 2008, the designated members of these sub-committees were the same for all provinces in the country (see Section 4.4.2) and, as an example, Table 5.1 presents the recruitment sub-committee for Chiang Mai province in detail. Nevertheless, a slight difference was observed in the case of two 'experts' in the sub-committees, because the 2008 NWRC Appointment Order required that these experts be appointed by respective provincial governors. Therefore, Chief of the Chiang Mai Provincial Local Administration Office and a retired university lecturer were appointed as experts for the Chiang Mai Provincial Recruitment Sub-Committee, while Director of the Lamphun Provincial Irrigation Project and a member of the Lamphun Municipalities Committee were appointed for the Lamphun Provincial Recruitment Sub-Committee. Nevertheless, public officials from the provincial administration were seen to represent these setups predominantly.

Two meetings were held by the URCMS for each of the two provincial recruitment sub-committees[52]. Reports from the meetings showed that the first one involved mainly provision of background information, e.g. the 2007 Regulation and RBC appointments, as well as the appointment of a recruitment working group for each of the sub-committees[53]. All members of the recruitment working groups also were sub-committee members. For example, all, but the provincial governor, PAO mayor and PONRE chief, were involved in the Chiang Mai Recruitment Working Group (cf. Table 5.1). The working groups contacted public agencies in respective areas, and asked them to disseminate information about recruitment, while inviting potential candidates to apply for enrolment. According to

[52] Meetings were organized for the Chiang Mai sub-committee on July 29, and August 26, 2008; and meetings were arranged on July 16, and August 21, 2008 for the Lamphun sub-committee.

[53] The second meeting report was the only one available for the Lamphun sub-committee; however, other related documents (internal official correspondence) suggest that the agenda for its first meeting was likely the same as that for the first Chiang Mai sub-committee meeting.

a URMCS officer, URMCS staff also helped by contacting and inviting people they knew from the previous RBC setup (under the 2002 Regulation) to participate in this process.

Table 5.1: The Chiang Mai Provincial Recruitment Sub-Committee

Member	Remark
1. Provincial governor	Chairperson
2. Mayor of the Chiang Mai Provincial Administrative Organization	
3. President of the Chiang Mai Provincial Chamber of Commerce	
4. President of the Federation of Thai Industries, Chiang Mai Chapter	
5. Chief of the Chiang Mai Provincial Office of Agriculture and Co-operatives	
6. Chief of the Chiang Mai Provincial Office of Tourism and Sports	
7. Chief of the Chiang Mai Provincial Office of Social Development and Human Security	
8. An expert on natural resource and environmental management	
9. An expert on natural resource and environmental management	
10. Director of WRO 1	Secretary
11. Chief of the Chiang Mai Provincial Office of Natural Resources and Environment (PONRE)	Assistant secretary

Source: Adaption based on the NWRC Order No.1/2551 (the Appointment of Provincial Recruitment Sub-Committee), dated June 24, 2008

The second meeting mainly concerned selection of qualified individuals by following the designated number for each group in the non-public sector of one province, as prescribed in the 2008 NWRC Announcement: three qualified persons for LGOs; no more than nine for the water user groups; and no more than nine for the experts. According to reports of the meeting, 31 persons applied in Chiang Mai, and 33 in Lamphun (Table 5.2). The two provincial recruitment sub-committees selected these persons, based on the designated numbers mentioned, together with qualifications pertaining to the non-public sector groups through the NWRC Announcement (see Section 4.4.2). In total, there were 21 persons from Chiang Mai, and 21 from Lamphun selected by respective sub-committees in the final recruitment process (Table 5.3).

Table 5.2: The Persons who applied to be Ping RBC non-public sector members in Chiang Mai and Lamphun

Type	Chiang Mai (number of persons)	Lamphun (number of persons)
1. Representatives of LGOs		
1.1. Provincial Administrative Organization (PAO)	1	1
1.2. Sub-district municipality	3	3
1.3. Sub-district administrative organization	3	3
2. Representatives of water user organizations		
2.1. Agriculture	8	4
2.2. Industry	2	3
2.3. Commerce, services and tourism	3	2
3. Experts		
3.1. Representatives of educational institutions	6	5
3.2. Persons with knowledge and experience of natural resources and the environment	4	5
3.3. Representatives of private organizations/NGOs	3	5
Total	**33**	**31**

Source: Reports on the second meeting of Lamphun and Chiang Mai Provincial Recruitment Sub-Committees held on August 21 and 26, 2008, respectively.

Table 5.3: Selected persons for recruitment as Ping RBC non-public sector members of Chiang Mai and Lamphun

Type	Chiang Mai (number of persons)	Lamphun (number of persons)
1. Representatives of LGOs (3 persons)		
1.1. Provincial Administrative Organization (PAO)	1	1
1.2. Sub-district municipality	1	1
1.3. Sub-district administrative organization	1	1
2. Representatives of water user organizations (9 persons)		
2.1. Agriculture	4	4
2.2. Industry	3	2
2.3. Commerce, services and tourism	2	3

Table 5.3: Selected persons for recruitment as Ping RBC non-public sector members of Chiang Mai and Lamphun (continued)

Type	Chiang Mai (number of persons)	Lamphun (number of persons)
3. Experts (9 persons)		
3.1. Representatives of educational institutions	3	2
3.2. Persons with knowledge and experience of natural resources and the environment	3	4
3.3. Representatives of private organizations/NGOs	3	3
Total	**21**	**21**

Source: Reports on the second meeting of Lamphun and Chiang Mai Provincial Recruitment Sub-Committees held on August 21 and 26, 2008, respectively.

Some observations can be made from the meeting reports and related official documents of the provincial recruitment sub-committees, based on the 2008 NWRC Announcement. Firstly, a strong top-down approach was adopted in providing directions for the provincial recruitment sub-committees, as indicated in the relevant Announcement. All details were specified and applied to all provinces across the country; and apparently the provincial recruitment sub-committees appointed simply followed the details indicated. This still reflects centralization as very much in the Thai public administration, where central administration sets the directions and line agencies or designated bodies duly using it.

Secondly, it was obvious that the DWR attempted to utilize the power of provincial administration in conducting the recruitment work. This was done through the 2008 NWRC Announcement, from which the DWR prepared its draft for the NWRC. This Announcement specifically indicated that provincial governors be appointed as the chairpersons of provincial recruitment sub-committees. As the chief of administration in a respective province, the provincial governor has great power (see Section 2.4). He/she not only supervises the provincial office, but also all other public agencies assigned to locate in areas of provincial administration. Thus, it was logical for the DWR to have provincial governors as chairperson of the sub-committees concerned, as some members officially were subordinates of the governors (see Table 5.1)[54], and others would surely recognize the

[54] Public agencies under supervision of respective provincial governors include: the Agriculture and Co-operatives Provincial Office, Tourism and Sports Provincial Office, Social Development and Human Security Provincial Office, and Natural Resources and Environment Provincial Office. The Provincial Local Administration Office and Provincial Irrigation Project are also under provincial governors (their

power of the governors. This strategy, however, suggests that the DWR lacked authority and had to rely on the power of provincial governors in conducting this recruitment activity.

Lastly, it can be seen that the appointed chairpersons and members generally did not pay attention to the provincial recruitment sub-committees. The chairpersons of the Chiang Mai and Lamphun sub-committees never attended the meetings; but sent their representatives instead, as did the sub-committee members. For example, of the nine appointed members, six sent representatives to attend the second meeting of the Chiang Mai sub-committee. Thus, the meeting was rather a formality, with the officials and persons involved simply sending 'someone' to participate only in order to complete the procedure. From this it was obvious that no priority was given to the recruitment activity by these parties; who merely followed the official appointment issued by the NWRC.

The selection process

The 2008 NWRC Announcement prescribed that the DWR hold a final recruitment process for the non-public sector members of all 25 RBCs. In the case of the Ping RBC, the DWR assigned WRO 1 to organize a meeting for this activity. WRO 1 assigned further responsibility for the Ping River Basin to its two units, the URCMS and LRCMS, to arrange a meeting on September 10, 2008 for the final selection of members concerned with the Ping RBC in Chiang Mai.

The meeting was divided into two sessions, one in the morning and the other in the afternoon. In the morning session, the Chiang Mai provincial governor came to open the meeting officially and then left immediately. The meeting then proceeded with an officer from the DWR's Bureau of Mass Promotion and Coordination (BMPC) presenting information on the 2007 Regulation, the RBC mandates, and appointment of the RBCs. Regarding the Ping RBC non-public sector members, this officer mentioned that 17 persons were to be appointed from the following groups: LGOs, water user organization (agriculture), water user organization (industry), water user organization (commerce, services and tourism), and experts. The officer also explained that based on the 2008

chiefs were appointed as expert members to the Chiang Mai and Lamphun Provincial Recruitment Sub-Committees, respectively).

NWRC Announcement, each group would nominate six individuals from its own group to the DWR, who would then pass the list on to the NWRC for the final appointment.

In the afternoon, a group meeting for each of the five groups mentioned was held, when individuals from these groups were allowed to select six persons from among themselves for the final appointment, as presented above. The author joined the group meeting that had been arranged for qualified persons representing water user organizations in the agricultural sector. According to a URCMS officer responsible for this group, it was planned that eligible persons from each province would select one person for it, and the whole group would select one more person. Since there were five provinces in the Ping River Basin, the whole process would result in six persons, which followed the number suggested by the BMPC officer, based on the 2008 NWRC Announcement. The meeting proceeded as planned, where qualified persons selected one person from their own province (Chiang Mai, Lamphun, and Tak[55]). In the case of Nakornsawan and Kampaengphet, only one eligible person from each province attended the meeting, so the two were selected automatically. The whole group also selected another qualified person from Chiang Mai to represent the group and, as agreed, this person was listed last on the selection list.

Regarding the other four groups, only individuals qualified as experts and water user organizations in the commerce, services and tourism sector came to the meeting with more than six persons (11 for the former, and 7 for the latter). Six and four eligible persons joined the meeting for LGOs and water user organizations in the industrial sector, respectively. Thus, the recommendation that individuals from the groups concerned select six persons from their own groups could only apply to the first two groups.

According to a URCMS officer responsible, a similar procedure was used for water user organizations in the agricultural sector and also applied in the expert group, for example, one person from each province was selected before the whole group selected another one, who would be placed last on the selection list. A URCMS officer responsible for the group of qualified persons from water user organizations in the commerce, services and tourism sector explained that the whole group discussed, on their own, who would be the six persons selected and who would be the last on the list. LGOs and the water user organizations in the industrial sector were the other two groups that selected all qualified

[55] Four qualified persons from Chiang Mai and Tak; and, three from Lamphun attended the meeting.

persons. However, an URCMS officer responsible stated that, among themselves, these individuals discussed who would be first on the selection list for their respective groups. In all groups, the place on the selection lists indicated the priority given to nomination by the groups concerned, and the NWRC would issue appointments based on these lists, as shown in Box 5.1. The final appointment of Ping RBC non-public members was carried out by the NWRC during its third meeting of 2008 (held on October 31, 2008). A list of the 17 members concerned in the Ping RBC is presented in Box 5.2.

Box 5.1: Lists of the selected persons nominated as Ping RBC non-public sector members

1. Nominated persons representing LGOs: 6 persons

1.1. Mayor of Hang Dong Sub-District Municipality, Hang Dong, Chiang Mai

1.2. Deputy mayor of Chiang Mai PAO

1.3 Mayor of Khon Tee TAO, Muang, Kampaengphet

1.4 Mayor of Don Kaew TAO, Mae Rim, Chiang Mai

1.5 Mayor of Wang Pang Sub-District Municipality, Viang Nonglong, Lamphun

1.6 Mayor of Tak PAO

2. Nominated persons representing water user organizations in the agricultural sector: 6 persons

2.1. A representative from Kampaengphet

2.2. A representative from Chiang Mai

2.3. A representative from Tak

2.4. A representative from Nakornsawan

2.5. A representative from Lamphun

2.6. A representative from Chiang Mai

3. Nominated persons representing water user organizations in the industrial sector: 4 persons

3.1. A representative from Chiang Mai

3.2. A representative from Tak

3.3. A representative from Nakornsawan

3.4. A representative from Lamphun

4. Nominated persons representing water user organizations in the commerce, service, and tourism sector: 6 persons

4.1. A representative from Kampaengphet

4.2. A representative from Chiang Mai

4.3. A representative from Tak

4.4. A representative from Lamphun

4.5. A representative from Lamphun

4.6. A representative from Tak

Box 5.1: Lists of the selected persons nominated as Ping RBC non-public sector members (continued)

5. Nominated persons representing the experts: 6 persons

5.1. A representative from Chiang Mai

5.2. A representative from Lamphun

5.3. A representative from Tak

5.4. A representative from Kampaengphet

5.5. A representative from Nakornsawan

5.6. A representative from Chiang Mai

Source: An official correspondence to the BMPC from the URCMS on behalf of WOR1, dated September 11, 2008

Box 5.2: List of the Ping RBC non-public sector members

Members representing LGOs: 3 persons

1. Mayor of Hang Dong Sub-District Municipality, Hang Dong, Chiang Mai
2. Deputy mayor of Chiang Mai PAO
3. Mayor of Khon Tee TAO, Muang, Kampaengphet

Members representing water user organizations in agricultural sector: 5 persons

4. A representative from Kampaengphet
5. A representative from Chiang Mai
6. A representative from Tak
7. A representative from Nakornsawan
8. A representative from Lamphun

Members representing water user organizations in industrial sector: 3 persons

9. A representative from Chiang Mai
10. A representative from Tak
11. A representative from Nakornsawan

Members representing water user organizations in commerce, service, and tourism sector: 2 persons

12. A representative from Kampaengphet
13. A representative from Chiang Mai

Members representing the experts: 4 persons

14. A representative from Chiang Mai
15. A representative from Lamphun
16. A representative from Tak
17. A representative from Kampaengphet

Source: The Ping RBC name list (available at www.dwr.go.th)

Who were the Ping RBC non-public sector members?

Generally, the Ping RBC non-public sector members who are appointed have backgrounds related to the sectors or groups they represent. For example, the three members who represented LGOs were local politicians serving as mayors or deputy mayor in their respective LGOs; and, those expert members included university lecturers, and local leaders who had a background in water resource and community forest management.

However, members representing water user organizations in the agricultural sector had rather complicated backgrounds. Of the five members, two were involved in local politics, as one was serving as Deputy Mayor of a TAO and the other a PAO Council member. Two other members had been involved in local politics: one a TAO mayor before being involved actively with NGOs; and, the other serving as a PAO Council member for three terms. The last member served as a sub-district chief, which is a position considered as an officer of the Department of Provincial Administration, though locally elected. Although these members were involved in agriculture, as they did have farms or orchards, it seems, for most of them, farming was of secondary importance.

5.1.1.2 The nomination process for Ping RBC public sector members

The appointment of Ping RBC public sector members

As mentioned in Section 4.4.2., RBC appointment orders that were issued by the NWRC indicate *ex officio* members, and the public agencies involved in particular RBCs. The provincial governors of Chiang Mai, Lamphun, Tak and Kampaengphet were appointed for the Ping RBC as *ex officio* members. The Chiang Mai provincial governor was later selected as the Ping RBC chairman. The Director of WRO 1 also was appointed as an *ex officio* member and secretary. Another 11 public agencies and one state-owned enterprise were specified as member agencies (see Table 4.5). According to the 2008 NWRC Announcement, the DWR had to tell these public agencies to appoint officers active in the Ping River Basin as Ping RBC member representatives.

Who were the Ping RBC public sector members?

Seventeen Ping RBC members represented public sector members; of which five were *ex officio*, and the rest assigned (Table 5.4). The five *ex officio* members included four provincial governors who were from the provincial administration, and one senior DWR

officer (Director of WRO 1) from central administration. Of 12 assigned members, nine were directors of regional offices, and two chiefs of provincial offices involved with public agencies from central administration; and, one member was director of a state owned enterprise located in the Ping River Basin (see Table 5.4 and Section 2.4).

It seemed straightforward at first glance that some Ping RBC public sector members were appointed as *ex officio* members and the others assigned by their respective agencies in terms of their nomination and appointment process. However, it was found that some members also were assigned by their agencies to represent other RBCs; one member in particular was appointed as a member of five other RBCs by her agency. Furthermore, besides being a Ping RBC member and secretary, the Director of WRO 1 also was an *ex officio* member and secretary of three other RBCs (see Table 4.5).

This situation came to light because the public agencies concerned had different organizational arrangements. As seen in Table 5.4, several public agencies from central administration were involved in the Ping RBC. As these agencies are at the central administrative level, they mainly base themselves in Bangkok, in Thailand's capital city. However, they also have regional offices established in certain provinces that are responsible for particular regions based on their own divisions. For example, the DWR divides the country administratively into ten regions with a WRO established for each region, while the Land Development Department has 12 administrative regions with a Land Development Regional Office created for each. These 'regions' may cover more than one river basin. Thus, when assigning officers to particular RBCs, based on the 2008 NWRC Announcement, the public agencies concerned normally appoint directors of their regional offices to all river basins that fall within particular administrative regions. As a result, some officers became a member of more than one RBC.

Table 5.4: The Ping RBC public sector members

Member	Department	Administrative Level
***Ex officio* members**		
1. Provincial governor of Chiang Mai	MOI Permanent Secretary Office	Provincial
2. Provincial governor of Lamphun	MOI Permanent Secretary Office	Provincial
3. Provincial governor of Tak	MOI Permanent Secretary Office	Provincial
4. Provincial governor of Kampaengphet	MOI Permanent Secretary Office	Provincial
5. Director of WRO 1	Department of Water Resources	Central
Assigned members		
6. Director of the National Policy and Planning Development Office	Government Public Relations Department	Central
7. Director of Royal Irrigation Office 1	Royal Irrigation Department	Central
8. Chief of the Land Use Planning Group, Land Development Regional Office 6	Land Development Department	Central
9. Director of Agricultural Extension and Development Regional Office 6	Department of Agricultural Extension	Central
10. Director of Marine Regional Office 1	Marine Department	Central
11. Chief of the Lamphun Provincial Office of Natural Resource and Environment (LPNRE) *	MNRE Permanent Secretary Office	Central
12. Director General of the Department of Water Resources	Department of Water Resources	Central
13. Director of Groundwater Resources Regional Office 7	Department of Groundwater Resources	Central
14. Director of Protected Area Management Regional Office 16	National Park, Wildlife and Plant Conservation Department	Central
15. Director of Disaster Prevention and Mitigation Regional Office 10	Department of Disaster Prevention and Mitigation	Central
16. Chief of the Chiang Mai Provincial Office of Local Administration**	Department of Local Administration	Central
17. Director of Bhumipol Dam	Electricity Generating Authority of Thailand (EGAT)***	-

Source: The Ping RBC name list (available at www.dwr.go.th)

Note: * LPNRE is under the provincial administration, but its chief was assigned to represent the Permanent Secretary Office, MNRE, which is the central administration.

** Chiang Mai Provincial Office of Local Administration is under the provincial administration, but its chief was assigned to represent the Department of Local Administration, which is the central administration.

*** EGAT is a state owned enterprise under supervision of the Ministry of Energy.

5.1.2 The formation of the sub-committee for river basin management and information

The Ping RBC Secretariat announced at the first Ping RBC meeting (held on February 6, 2009) that a sub-river basin committee should be established. According to the DWR officer, who spoke in this meeting on behalf of the Ping RBC Secretariat, one river basin sub-committee was to be established for each river basin. This sub-committee was to assist the respective RBC in terms of river basin management and information.

To this end, the Ping RBC Secretariat proposed a sub-committee structure consisting of representatives from public agencies (e.g. Royal Irrigation Department and Royal Forestry Department, LGOs, water user organizations, and experts), with the Director of WRO 1 as a member and secretary. Therefore, this proposed structure largely resembled that of the Ping RBC. The meeting discussed this structure widely and various suggestions came from Ping RBC members such as inclusion of a representative for the Department of Public Works and Town and County Planning, and five non-public sector representatives from each province rather than seven from three types of water user organizations.

However, a notable suggestion was lodged by the Chair of the meeting; a Deputy Governor representing the Chiang Mai Governor. He requested that the Lamphun Provincial Governor be appointed as the chairman of the sub-committee concerned. When asked by a Ping RBC member why this should be so, the Chair explained that the Lamphun Provincial Governor could draw the attention of people concerned; and that his request was based on the (provincial) public administration system and the 'recognition' a provincial governor received as compared to other would-be sub-committee members. This again illustrated the clout of provincial governors (and their deputies) in provincial administration.

As appeared in the Ping RBC Order No.3/2552, dated September 14, 2009, the final structure of the sub-committee consisted of 49 members with the Lamphun Provincial Governor as chairman, and Director of WRO 1 as secretary (Table 5.5). Similar to the Ping RBC, sub-committee public sector members mainly represented public agencies from central administration. Water user organizations and expert group from the non-public sector were subsumed under the 'civic society' group. Members representing this group were selected from qualified individuals, who were included previously for final selection of Ping RBC non-public sector members. This was suggested by a member of the Ping RBC during its first meeting, as presented above.

The 2007 Regulation does not prescribe the governing bodies within the RBCs. Thus, establishment of the river basin sub-committees, and indeed that of provincial and sub-river basin working groups, reflects how the DWR translated and implemented the 2007 RBC framework on the ground, as discussed in the following sections. Evidently, the DWR exerted its directions regarding this framework through the RBC secretariat, as officers from its line units were appointed as members and secretaries of the river basin governing at all levels (see Figure 4.5).

Table 5.5: The Ping River Basin Sub-Committee for River Basin Management and Information

Member	Department	Administrative Level
Public sector		
1. Provincial governor of Lamphun (*Chairman*)	MOI Permanent Secretary Office	Provincial
2. Director of Royal Irrigation Office 1	Royal Irrigation Department	Central
3. Director of Royal Irrigation Office 4	Royal Irrigation Department	Central
4. Chief of the Chiang Mai Provincial Office of Local Administration	Department of Local Administration	Provincial
5. Chief of the Lamphun Provincial Office of Natural Resource and Environment	MNRE Permanent Secretary Office	Provincial
6. Director of Government Public Relations Regional Office 3	Government Public Relations Department	Central
7. Director of Government Public Relations Regional Office 4	Government Public Relations Department	Central
8. Director of Protected Area Management Regional Office 16	National Park, Wildlife and Plant Conservation Department	Central
9. Director of Protected Area Management Regional Office 14	National Park, Wildlife and Plant Conservation Department	Central
10. Director of Protected Area Management Regional Office 12	National Park, Wildlife and Plant Conservation Department	Central
11. Director of Disaster Prevention and Mitigation Regional Center 10	Department of Disaster Prevention and Mitigation	Central
12. Director of Forest Resource Management Office 1 (Chiang Mai)	Royal Forestry Department	Central
13. Director of Marine Regional Office 1 (Chiang Mai)	Marine Department	Central

Table 5.5: The Ping River Basin Sub-Committee for River Basin Management and Information (continued)

Member	Department	Administrative Level
14. Director of Environmental Regional Office 1	MNRE Permanent Secretary Office	Central
15. Chief of the Chiang Mai Provincial Office of Public works and Town and County Planning	Department of Public Works and Town and County Planning	Provincial
16. Director of WRO 1 (*Secretary*)	Department of Water Resources	Central
17. Director of the URCMS (*Assistant secretary*)	Department of Water Resources	Central
18. Director of the LRCMS (*Assistant secretary*)	Department of Water Resources	Central
LGOs		
19. Mayor of the Chiang Mai PAO	-	Local
20. Mayor of the Lamphun PAO	-	Local
21. Mayor of Tak	-	Local
22. Mayor of Kampaengphet (*First vice chairman*)	-	Local
23. Mayor of Nakornsawan	-	Local
Expert		
24. Expert	-	-
Civic society		
25. Five representatives from Chiang Mai	-	-
26. Five representatives from Lamphun	-	-
27. Five representatives from Tak	-	-
28. Five representatives from Kampaengphet	-	-
29. Five representatives from Nakornsawan*	-	-

Source: The Ping RBC Order No.3/2552, dated September 14, 2009

Note: *One representative was selected as second vice chairman

5.1.3 The formation of provincial river basin working groups

The first meeting of the River Basin Sub-Committee on River Basin Management and Information was held on July 15, 2009, at which the secretariat (WRO 1 and its responsible units - the URCMS and LRCMS) proposed that a river basin working group should be established at a provincial level for each province in the Ping River Basin (see Figure 3.1).

It also proposed a provincial river basin working group structure that involved officers from several provincial administration offices, the PAO Mayor, and representatives of water user organizations located in respective provinces. Various suggestions were given by sub-committee members; for example, representatives of water user organizations should be separated into three sectors (agriculture, industry and commerce); and the PONRE Chief should be the working group secretary instead of the Director of WRO 1.

The five provincial river basin working groups in the Ping River Basin were finally appointed on September 14, 2009. Although different in numbers, these working groups shared the same composition of public and non-public members, with the provincial governor and PONRE Chief in respective provinces seen as the chairperson and secretary, respectively. Public sector members included chiefs of provincial administration offices, and representatives of the central administration agencies concerned, while non-public sector members were representatives of water user organizations (agriculture, industry and commerce). These members were contacted by the URCMS or LRCMS, and presented to the first meeting of particular provincial river basin working groups for approval. Some of these members also represented the civil society group in the River Basin Sub-Committee on River Basin Management and Information. In addition, the Mayor of the respective PAO also was appointed as a working group member, while directors of the URCMS and LRCMS were assigned as members and assistant secretaries of working groups located in areas they were responsible for. As the structure of the five provincial river basin working groups is essentially the same, only the Lamphun Provincial River Basin Working Group is presented here as an example (Table 5.6).

Establishment of the five provincial river basin working groups was simple when compared to that of the sub-river basin working groups, which was complicated and delayed, as described in the following section. The matter was discussed only once in the meeting of the River Basin Sub-Committee mentioned above, and the working groups concerned were established officially by the Ping RBC Orders dated September 14, 2009. However, when viewing from a broader perspective, the establishment of these working groups also was delayed, in that their first meeting was held in 2010, about one year after the Ping RBC was appointed.

The establishment process presented above showed that the secretariat of the Ping RBC framework (i.e. WRO 1, URCMS, and LRCMS) played a central role, by suggesting establishment of the working group and proposing its structure. Furthermore, it also

selected the provincial river basin working group members who represented water user organizations. Similar conduct was observed in the formation process of sub-river basin groups.

Essentially, the establishment of river basin governing bodies at the provincial level reflects that the administrative boundary (i.e. the provincial boundary) still influences the RBC framework. This is the case, even though this framework claims to promote a river basin as a unit for water resource governance.

Table 5.6: The Lamphun Provincial River Basin Working Group

Member	Remark
1. Lamphun provincial governor	Chairman
2. Lamphun provincial clerk	
3. Chief of the Lamphun Provincial Office	
4. Mayor of the Lamphun PAO	
5. Chief of the Lamphun Provincial Office of Agriculture and Co-operatives	
6. Chief of the Lamphun Provincial Public Relations Office	
7. Chief of the Lamphun Provincial Office of Local Administration	
8. Director of the Lamphun Provincial Irrigation Project	
9. Head of the Lamphun Provincial Disaster Prevention and Mitigation Office	
10. A representative of Protected Area Management Regional Office 16	
11. A representative of Forest Resource Management Office 1 (Chiang Mai)	
12. A representative of Water Resources Regional Office 1	
13. A representative of Marine Regional Office 1 (Chiang Mai)	
14. A representative of Environmental Regional Office 1	
15. A representative of Groundwater Resources Regional Office 1	
16. A representative of the Lamphun Provincial Water Works	
17. A representative of water user organizations (commerce)	
18. A representative of water user organizations (industry)	
19. A representative of water user organizations (agriculture)	
18. A representative of water user organizations (agriculture)	
21. Chief of the Lamphun PONRE	Secretary
22. Director of the URRCMS	Assistant secretary

Source: The Ping RBC Order No.5/2552 dated September 14, 2009

5.1.4 The formation of sub-river basin working groups

At the first meeting of the River Basin Sub-Committee on River Basin Management and Information dated July 15, 2009, the Sub-Committee's secretariat proposed appointing a structure for a sub-river basin working group for each of 20 sub-river basins located in the Ping River Basin, apart from the provincial river basin working group structure. The proposed sub-river basin working group structure would comprise members representing the pubic and non-public sector located in respective sub-river basins, and they would include district officers; village headmen and sub-district chiefs; representatives of LGOs; representatives of public agencies; representatives of educational institutions or experts on natural resource or environmental management; representatives of water user organizations (agriculture, commerce or industry); leaders of water resource networks (local groups established by the DWR); and, representatives of WRO 1. During the discussion on this proposed structure, concerns were aired about the size of each working group, as many villages and sub-districts were located in one sub-river basin. It was concluded that a preliminary structure would be presented to the stakeholders in each sub-river basin, and they would decide the final structure of the working group for their sub-river basin.

The first three sub-river basin working groups, located in the upper part of the Ping River Basin, were appointed by the Ping RBC on September 14, 2009 (Mae Kan, Mae Klang, and Mae Rim (see Figure 3.2). The structure of the sub-river basin working groups was composed of at least 16 members, who represented both the public and non-public sector. The public sector members involved district officers and district agricultural officers as *ex officio* members; and representatives of the Chiang Mai Provincial Irrigation Project (CIP), Protected Area Management Regional Office 16 (PMRO 16) and Groundwater Resources Regional Office 1 (GRO 1), with the URCMS Director indicated as secretary. The non-public sector members included an expert on natural resource and environment, representatives of water user organizations (agriculture, commerce, and industry), representatives of water resource networks and a representative of an educational institution. In addition, representatives of LGOs and chairpersons of the Village Headmen and Sub-District Chiefs Clubs from each district concerned also were included in the structure.

The working group chairperson was selected in 2010 during a meeting organized by the URCMS for each of the mentioned working groups. The working group's secretariat (i.e.

URCMS) contacted individuals to represent the non-public sector group, as mentioned above, and they were presented to the meeting for approval. According to the secretariat, a district local administration officer would nominate a representative of LGOs as the working group members from each district concerned. Also, the three public agencies involved (CIP, PMRO 16, and GRO 1) would be contacted in order to assign their officers to the working groups. As an example, the Mae Rim Sub-River Basin Working Group is presented in Table 5.7.

The sub-river basin working group appointments were delayed and they stretched through the whole four-year term of the Ping RBC[56]. There are 14 sub-river basins in the upper part of the Ping River Basin (see Figure 3.2). However, only three sub-river basin working groups were appointed in 2009, as presented above. In the following year, no appointment was made. Seven sub-river basin working groups were assigned in 2011, with the last four appointed in 2012, which was the final year of the Ping RBC term.

It should be noted that in order to appoint a sub-river basin working group, a responsible unit of the DWR (in this case the URCMS) needed to organize a meeting with the sub-river basin concerned, they intended to discuss a preliminary sub-river basin working group structure, as presented above, and provide information about the RBC framework. However, as the URCMS is a line unit of WRO 1, which is in turn a DWR regional office, it could not organize the meeting in question on its own. Instead, it needed a directive from the DWR, including a budget to go ahead. As it appeared, there was no directive in 2010 regarding the establishment of new sub-river basin working groups. Nevertheless, in 2011, the DWR ordered its line units to appoint sub-river basin working groups for all remaining sub-river basins situated in areas for which they were responsible. The URCMS managed to appoint only seven sub-river basin working groups in that year, while the remaining four were assigned in 2012.

The establishment of sub-river basin working groups clearly shows how influential the DWR is in implementing the 2007 RBC framework through its line units. In turn, this indicates continuation of traditional public administration practices, which rely on hierarchy to carry out public policies in the Thai administrative context.

[56] Officially, the term for non-public sector members is four years (see Section 4.4.2)

Table 5.7: The Mae Rim Sub-River Basin Working Group

Member	Remark
1. Mae Rim District Officer	Chairman
2. Mae Tang District Officer	First vice-chairman
3. Samerng District Officer	Second vice-chairman
4. Mayor of the Sa Loung TAO	
5. Mayor of the Mae Tang TAO	
6. Mayor of the Mae Sap TAO	
7. A representative of the Chiang Mai Provincial Irrigation Project	
8. A representative of Protected Area Management Regional Office 16	
9. A representative of Groundwater Resources Regional Office 1	
10. A representative of the Village Headman and Sub-District Chief Clubs: Mae Rim	
11. A representative of the Village Headman and Sub-District Chief Clubs: Mae Tang	
12. A representative of the Village Headman and Sub-District Chief Clubs: Samerng	
13. An expert on natural resource and environment: Mae Rim	
14. An expert on natural resource and environment: Mae Tang	
15. A representative of water user organizations (agriculture): Mae Rim	
16. A representative of water user organizations (agriculture): Mae Tang	
17. A representative of water user organizations (agriculture): Samerng	
18. A representative of water user organizations (commerce)	
19. A representative of water user organizations (industry)	
18. A representative of Water Resource Networks	
19. A representative of Water Resource Networks	
20. A representative of educational institutions	
21. Director of the URCMS	Secretary
22. URRCMS officer	Assistant secretary

Source: Based on the Ping RBC Order No.11/2552 dated September 14, 2009, and the Mae Rim Sub-River Basin Working Group's meeting report (June 15, 2010)

5.1.5 The current status of the Ping BRC and its governing bodies

The 2007 Regulation and 2008 NWRC Announcement indicate that the RBC non-public sector members serve a four-year term[57]. Since the entire RBC non-public sector members were appointed by the NWRC on December 1, 2008, their term ended on the same day of November 30, 2012. According to a URCMS officer, the RBCs became 'the acting RBCs' after the above mentioned date. Consequently, the sub-committees and working groups appointed by respective RBCs also became the acting sub-committees and working groups. A new chain of appointments was required in order to restore the RBCs and their governing bodies to normal official status.

According to a URCMS officer, the recruitment process, as described in Section 5.1.1.1, was conducted to identify, select and nominate qualified persons as non-public sector members of the Ping RBC. This process was completed as of January 2014, and the nomination list has been sent to the DWR for passing on to the NWRC for the final appointment.

5.2 Management of the Ping RBC and its governing bodies

The previous section presents in detail how the RBC framework was implemented in terms of forming the RBC itself, as well as its governing bodies, as the Ping River Basin unfolded. This section turns to discussion on how these river basin governing bodies manage themselves (see PROVAN and KENIS (2008) in Section 2.2).

5.2.1 The Ping RBC management

As presented in Section 4.4.2, the 2007 Regulation indicates various mandates for the RBCs (see Box 4.2), and the RBC members are supposed to take part in making decisions for achieving their mandates, which suggests that they are to be managed by the participant-governed form of PROVAN and KENIS (2008). As Provan and Kenis (2008) explain, each governance form has both advantages and shortcomings. However, centralization in the Thai context has been prevalent, and participation by the non-public sector in the domain of public sector work is limited. Thus, the participant-governed form for the RBC framework seems to be appropriate when compared with the lead organization

[57] There is no term of service for RBC public sector members specified in the 2007 Regulations or the 2008 NWRC Announcement.

governed form and NAO model. This is because the former would provide a foundation upon which the non-public sector groups concerned (e.g. water user organizations) could act on equal terms together with their public sector counterparts in managing water resources in their respective river basins. In practice, however, RBC management did not proceed as outlined, as evidenced by the case of the Ping RBC.

Understanding RBC management can be approached from the activities implemented in order to fulfill the functions mandated, as they will in turn reflect decision making processes and involvement of RBC members. The Ping RBC found that only one activity was organized, in which a very formal meeting was presided over by the Ping RBC chairman or his representative (Figure 5.1). This meeting was organized twice a year; thus, there were eight in total throughout the first four years of the Ping RBC's existence (2008-2012).

Figure 5.1: Meeting of the Ping RBC (05.03.2010)

Source: Own photo

As the Ping RBC was supposed to be governed by all members, they would be expected to play a role in deciding when to call for a meeting, what agendas would be discussed, and at which venue the meeting would be held. In practice, however, the Ping RBC secretariat (i.e. WRO 1, and especially the URCMS), made decisions on all aspects regarding the meeting. That is to say, it decided when a meeting was to be arranged within a (fiscal) year.

It also decided on the meeting agenda with the main item always being approval of integrated river basin management and development plan (see Section 5.5).

The Ping RBC meetings were held in Chiang Mai every time, although some non-public sector members suggested that it should be arranged in other provinces also located in the Ping River Basin (see Figure 3.1). This could be because the URCMS received the budget (thus, the directive) for organizing the RBC and River Basin Sub-Committee meetings (those of the latter were always organized in Lamphun, see the following Section). With no budget, and for that matter no directive, the LRCMS could not arrange the RBC meetings in Tak, Kampaengphet, or Nakornsawan. It should also be noted that distances between these provinces in the lower Ping River Basin and Chiang Mai are approximately 280 km., 350 km., and 460 km. for Tak, Kampaengphet, and Nakornsawan, respectively. Thus, travelling to Chiang Mai for a meeting was a burden for non-public sector members from these provinces, although a travel allowance was paid.

Thus, Ping RBC members of both the public and non-public sector had never been involved in RBC management. Instead, the Ping RBC was managed by using the lead organization governed form with WRO 1, particularly through the URCMS, which played a central role. Apparently, the Ping RBC management process was highly centralized, as a typical characteristic of the lead organization governed form. As only one activity was managed solely by units of WRO 1, there was no room for participation from other Ping RBC members, or public or non-public sectors alike.

5.2.2 Management of the Ping RBC's governing bodies

The 2007 Regulation does not indicate how governing bodies of the Ping RBC (the Sub-Committee on River Basin Management and Information, provincial river basin working groups, and sub-river basin working groups) are to be managed. However, evidence observed from their implementation suggested that they all were managed by the lead organization governed form (PROVAN & KENIS, 2008). Like the Ping RBC, the management of its governing bodies can be approached from the activities organized in order to fulfill the functions mandated to them.

5.2.2.1 The Sub-Committee on River Basin Management and Information

Based on the Ping RBC Order No.3/2552, dated September 14, 2009, several mandates were assigned to the Sub-Committee on River Basin Management and Information. These

include, for instance, preparing a master plan for river basin management, and water resources and water sources development, conservation, and rehabilitation; preparing an annual action plan following policies and the master plan; and monitoring and evaluating action plan implementation by the public agencies concerned.

Similar to the Ping RBC, the only activity organized for the Sub-Committee, in order to fulfill its mandates, was meetings, and six were organized (two meetings per year) throughout the first three years of its existence (2009-2012). These meetings were always held slightly before those of the Ping RBC. For example, the Sub-Committee meeting was arranged on February 18, 2010 (Figure 5.2), a few weeks before the Ping RBC meeting, as shown in Figure 5.1. Clearly, this was an attempt by WRO 1 and its line units to create an image that Ping River Basin-related issues were discussed and approved by the Sub-Committee before presenting to the Ping RBC for consideration.

Similar to the Ping RBC meetings, WRO 1 with the URCMS was the sole agency to organize Sub-Committee meetings. It called for meetings that were very formal and always organized in Lamphun. As presented above, one reason for this may be because the URCMS received the budget, and thereby had the directive to hold the meetings for the Sub-Committee. It also identified meeting agendas, in which the main item was always concerned with approval of the integrated river basin management and development plan (see Section 5.5). As Lamphun is located approximately 35 km from Chiang Mai, the Sub-Committee members representing the civil society group from Tak, Kampaengphet, and Nakornsawan bore the same burden of travel to attend the meetings as the RBC non-public sector members from the same provinces.

The situations observed are evidence that the Sub-Committee was managed by the lead organization form (PROVAN & KENIS, 2008). As the 'lead organization', WRO 1 via the URCMS managed all aspects of the Sub-Committee meetings, which was its only activity. The Sub-Committee members simply attended the meetings with little to say about their arrangement.

Figure 5.2: Meeting of the Ping River Basin Sub-Committee (18.02.2010)

Source: Own photo

5.2.2.2 The Provincial River Basin Working Groups

There were five provincial river basin working groups appointed on September 14, 2009 by the Ping RBC for each province located in the Ping River Basin (see Figure 3.1). They all were given the same mandates, for example, collecting information on water resources, other related natural resources, and completed water resource-related projects; presenting the needs of water source development projects in the respective provinces or sub-river basins to the Ping RBC; and, coordinating with the 'public agencies' concerned when preparing their action plans concerned with, for instance, water source development and conservation, water allocation, and watershed rehabilitation in order to prepare a provincial or sub-river basin action plan[58].

As with the Ping RBC and River Basin Sub-Committee discussed above, the only activity organized for provincial river basin working groups, in order to realize their mandates was meetings. Although officially appointed in September 2009, the first meeting for each provincial river basin working group was held in 2010. Unlike the Ping RBC and River Basin Sub-Committee, the meeting for the provincial river basin working groups was normally organized only once per (fiscal) year (Figure 5.3). Thus, only two meetings were arranged over the first three years (2009-2012) for each of the working groups under the

[58] The Ping RBC Order No.4/2552, No.5/2552, No.6/2552, No.7/2552, and No.8/2552 dated September 14, 2009.

Ping RBC setup, apart from the Chiang Mai and Lamphun Working Group, which both had meetings organized in 2010 and 2011, respectively.

Again, the URCMS were seen to play a key role in organizing the provincial river basin working groups. It made arrangements in all aspects of the meetings, in which the main item on the agenda was approval of the integrated river basin management and development plan for respective provinces (see Section 5.5). The same situation was highly likely to occur in the case of the LRCMS, as it was tasked with mandates for provincial working groups in Tak, Kampaengphet, and Nakornsawan. Thus, management of the provincial river basin working groups also was in the lead organization form (PROVAN & KENIS, 2008), performed primarily by the URCMS and LRCMS.

Figure 5.3: Meeting of the Chiang Mai Provincial River Basin Working Group (02.08.2010)

Source: Own photo

5.2.2.3 The Sub-River Basin Working Groups

The Ping River Basin consists of 20 sub-river basins (see Appendix III). Appointments for the sub-river basin working groups stretched through the first four years of the Ping RBC framework, especially in the upper part of the Ping River Basin (see Section 5.1.4). Based on the Ping RBC Order on the appointment of Sub-River Basin Working Groups, the

working groups were charged with the same mandates as those assigned to the provincial river basin working groups, but they were confined to respective sub-river basins only[59].

Similar to the provincial river basin working groups, the only activity organized for the sub-river basin working groups was a meeting held only once a year (Figure 5.4), which was organized by the URCMS for the 14 sub-river basin working groups under its responsibility. The LRCMS would have to do the same for its six sub-river basin working groups (see Table 5.7). Thus, they called the meetings and identified their agendas. Like the other governing bodies of the Ping River Basin, the main item on the meeting agenda of the sub-river basin working groups was concerned with the integrated river basin management and development plan for each sub-river basin (see Section 5.5). Indeed, the meetings provided an opportunity for the URCMS or LRCMS to collect water resource-related plans from LGOs located in respective sub-river basins, which were incorporated later into the integrated Ping River Basin management and development plan. From the evidence presented, it can be seen that the sub-river basin working groups were managed using the lead organization form (PROVAN & KENIS, 2008), in which the URCMS and LRCMS played a central role.

Figure 5.4: Meeting of the Mae Klang Sub-River Basin Working Group (11.06.2010)

Source: Own photo

[59] For example, the Ping RBC Order No.9/2552, No.10/2552, No.11/2552, No.12/2552, No.13/2552 and No.14/2552 dated September 14, 2009.

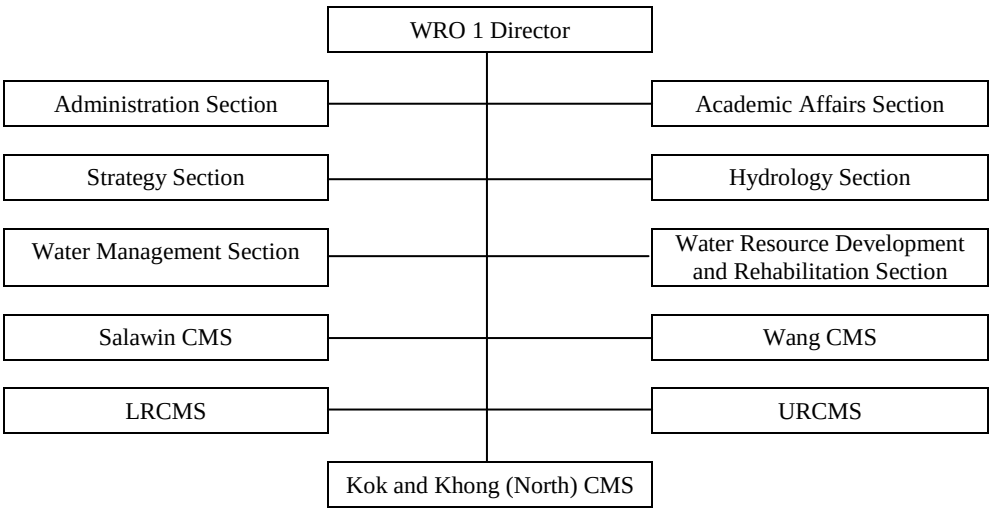
5.2.3 WRO 1: The lead organization in Ping RBC management

As discussed in Section 4.4.2, the 2007 Regulation suggests that RBCs be managed using the participant-governed form (PROVAN & KENIS, 2008). Evidence from implementation of the Ping RBC, however, indicated that the Ping RBC and its governing bodies were managed by the lead organization form (PROVAN & KENIS, 2008) with WRO 1, primarily through the URCMS and LRCMS, which both played the role of lead organization. Thus, this section presents details of WRO 1 and the URCMS as an example of line units directly responsible for the implementation of the RBC framework.

5.2.3.1 Water Resources Regional Office 1 (WRO 1)

Water Resources Regional Office 1 (WRO 1) is one of ten regional offices of the DWR. Located in Lampang, which is situated approximately 100 km southwest of Chiang Mai, WRO 1 is responsible for an area that covers five river basins: Ping, Salawin, Kok, Khong Part I, and Wang (see Figure 3.1 and Appendix II). Similar to other WROs, WRO 1 has several divisions including administration, academic affairs, water source development and rehabilitation, water management, hydrology and strategy; and five Coordination and Management Sections (CMSs) responsible for respective river basins, for example, the URCMS and LRCMS for the Ping River Basin (Figure 5.5).

Figure 5.5: Structure of Water Resources Regional Office 1



Source: Own illustration based on information provided at http://region.dwr.go.th/wrro1

WRO 1 is mandated with several tasks, resembling those of other WROs. They include, for instance, promoting and supporting the establishment of water resource management organizations at the river basin and local level; developing and implementing plans for water source development, conservation, and rehabilitation; and, acting as the secretariat of the RBCs and water resources-related sub-committees existing in the area it is responsible for[60]. WRO 1 acts for the last mandate as secretariat for four RBCs and their river basin sub-committees: Ping, Salawin, Kok and Khong (North), and Wang (see Table 4.5 and Box 4.3), while the WRO 1 Director serves as a member and secretary for these RBCs and their sub-committees. Evidently, the secretarial tasks of the RBCs and their governing bodies were assigned to the CMSs responsible, as observed in the Ping RBC effort, where the URCMS took this responsibility.

5.2.3.2 The Upper Ping River Basin Coordination and Management Section (URCMS)

The Upper Ping River Basin Coordination and Management Section (URCMS) is one of the five CMSs under WRO 1. Located in Chiang Mai, its responsible area covers the upper part of the Ping River Basin (Chiang Mai and Lamphun) with 14 sub-river basins (see Figure 3.1 and 3.2). Like other CMSs, the URCMS is charged with tasks concerning water resource management in the area it is responsible for such as collecting relevant information for water resource management; coordinating and managing water resources; supporting the establishment of water resource management organizations as well as building their capacity and transferring technologies to them; conducting public relations and research on river basin management-related issues, and acting as the secretariat of water resource management sub-committees at the river basin level[61].

As found in implementation of the Ping RBC, the URCMS was actually assigned secretariat tasks for both the Ping RBC and its River Basin Sub-Committee, with its director serving as their assistant secretary. Furthermore, the URCMS also acted as the secretariat of two provincial and 14 sub-river basin working groups located in the area it is responsible for, where its director served as assistant secretary in the former and secretary in the latter. Indeed, secretarial tasks became the main work of the URCMS, and other assignments such as water resource management and coordination and research were virtually absent.

[60] http://region.dwr.go.th/wrro1.

[61] Ibid.

Activities (i.e. the meetings) of the Ping RBC and its governing bodies, as presented above, were organized primarily by WRO 1 through the URCMS. Although WRO 1 (the URCMS and LRCMS by extension) was a member with equal status as other members of the Ping River Basin governing bodies, and assigned secretarial tasks officially, it became 'the lead organization' (PROVAN & KENIS, 2008) in the setup. It managed all aspects of these governing bodies with practically no involvement from other public or non-public members, as reflected by the organizations in the meetings previously mentioned. Apparently, these meetings had the integrated river basin management and development plan as the main item on the agenda. As such, it was clear that WRO 1 exerted its power by acting as the lead organization to direct the Ping RBC setup and achieve one of its own mandates as Ping RBC secretariat regarding the water resource management plan (see Box 5.3). However, when taking the 2007 Regulation (i.e. legal infrastructure for the RBC framework) into consideration, this probably was the only mandate that WRO 1 could fulfill in its capacity (see Section 6.3.).

5.3 Collaborative process in the Ping RBC and its governing bodies

Collaboration between members and organizations involved in a collaborative arrangement is fundamental for its success. As discussed in Section 2.2, scholars have identified various issues concerning a collaborative process from a collaborative governance perspective. When applying them in RBC framework implementation, these issues can be expressed as, for example, a face-to-face dialogue between RBC members, a sense of ownership for the RBCs and their governing bodies, or some immediate outcomes produced by the river basin governing bodies (see ANSELL & GASH, 2008). Evidence from Ping RBC implementation indicated that collaboration between members of this RBC, and those of its governing bodies was basically non-existent. The following sections present this evidence in detail.

5.3.1 Collaborative process in the Ping RBC

It was clear from Section 5.2.1 that Ping RBC members had very limited opportunity to interact with each other because the only forum in which they met was in the meetings arranged twice a year by WRO 1 via the URCMS. Quantitatively, it was already evident that the Ping RBC lacked face-to-face dialogue between its members (ANSELL & GASH,

2008). Information gained from Ping RBC meetings and meeting reports also indicated that interaction between the members during these meetings was limited.

As mentioned earlier, the Ping RBC meetings were of formal format with repeated procedure. They began with an open statement from the chairman, who asked the secretary (in practice, the assistant secretary - URCMS Director) to conduct the meeting by following the agenda, which was standardized and usually included 1) issues from the chairman, 2) approval of the report from the previous meeting, 3) issues to inform the meeting, 4) issues for consideration and approval, and 5) other issues.

For the first item on the agenda, the chairman normally informed the meeting of the reason why the actual chairman (Chiang Mai Governor) was absent. Indeed, the Governor never attended the meetings himself. In dealing with the second item, the assistant secretary asked for approval of the report from the previous meeting, which had been sent to each member beforehand. If there was any discussion here, it was only to correct typing errors in the report concerned. The assistant secretary then moved to the third item, which was to inform the meeting of various issues such as project implementations in the Ping River Basin by the public agencies concerned, or drought and flood situations. The members representing Bhumibol Dam, and the RID also presented water resource situations in the river basin. Generally, there was no discussion carried out on the third item. The assistant secretary usually outlined the five-year integrated river basin management and development planning framework, a planning process, or an annual integrated river basin management and development plan (see the following section) for the fourth item of the agenda. He then asked the members to consider and approve these items. This agenda generally drew some comments or questions for clarifications from the members, but without meaningful deliberation or discussions on the framework or plan concerned. The last item was open for issues brought up by the secretariat or Ping RBC members, for example, the secretariat would invite members to attend a certain meeting. There was no practical discussion here also. Overall, it could be seen that the meeting was largely a one-way communiqué from the secretariat. Thus, due to the infrequency of the meetings, there was little dialogue between RBC members.

Information deriving from interviews with Ping RBC members indicated further that contact between the Ping RBC Secretariat (i.e. WRO 1 and the URCMS) and members; or, among the members themselves was virtually nonexistent. According to the members interviewed, contact made from the Ping RBC Secretariat mainly concerned a meeting, for

example, sending an official invitation letter for a meeting, and afterwards sending a report of the meeting concerned, as well as requesting (see Box 5.3, mandates no.3). This was confirmed by a URCMS officer responsible, who explained that contact made was concerned mainly with meetings and information requests (particularly project plans): "*we [the Ping RBC secretariat] made contact only during the meeting preparation - inviting them [members of the river basin governing bodies] to the meeting, so to say; and to get information from them. That's all.*" Conversely, members made virtually no contact with the Ping RBC Secretariat. For instance, a member representing the public sector stated that he made no contact to the Ping RBC Secretariat, except for sending plans: "*no contact was made [to the Ping RBC Secretariat], this I frankly admit*." A member representing the agricultural water user organization group mentioned that the reason why he made no contact with the Secretariat was because "*[the Ping RBC] was nonsense and it was not significant*"; thus, he "*had no intention*" of making contact.

In addition, the members interviewed revealed that they made no contact with each other under the capacity of Ping RBC members. A public sector representative explained that he met RBC members only in the context of other committees or meetings; however, he never contacted these persons as a Ping RBC member, and received information on the RBC concerned only through meetings. Another public sector representative made a similar comment when pointing out that he contacted some RBC members on a personal basis, not as 'a Ping RBC member'. He commented further that "*the RBC was not really a talk of the town issue. It died out after the meeting*."

Apparently, the Ping RBC members lacked face-to-face dialogue and interaction, upon which other elements of a collaborative process such as trust and shared understanding could be built (ANSELL & GASH, 2008). Additionally, the comments shown above also suggested that the members did not value the Ping RBC. Indeed, some members from the non-public sector stated from the interview that they intended not to be involved in this arrangement. For example, a member representing LGOs commented that the Ping RBC meeting provided 'little value', and he preferred to work for his own jurisdiction, while a member representing the expert group stated that he would not participate as a Ping RBC member in the next term. Members from the public sector also pointed out that the Ping RBC was not relevant to their work, and therefore less of a priority when compared to their own work. For instance, one member from this group stated that the Ping RBC was 'too far away' from his line of duties. In contrast, a member whose duties concerned natural

resource management pointed out that he did not contact the Ping RBC or its secretariat as they played 'little role' in solving problems. He further explained that if a problem occurred (e.g. water source-related problem), he would directly contact WRO 1 because "*there [at WRO 1] is a center for coordination, where the problem can be solved promptly. However, here [at the Ping RBC setup], there is only a gathering of plans, so that a meeting can be arranged*." Another member indicated that Ping RBC work was placed as the 'very last' priority, and she would only allow her designated representatives[62] to attend Ping RBC meetings when they were really free from their own work. Thus, it was clear that the members did not share a sense of interdependency, which helps to facilitate collaboration (ANSELL & GASH, 2008; THOMPSON & PERRY, 2006).

5.3.2 Collaborative process in the Ping RBC's governing bodies

The collaborative process in the governing bodies of the Ping RBC, like that of the Ping RBC itself, also was characterized by a lack of face-to-face dialogue. This insufficiency was evidenced clearly by the number of meetings, which were the only activity organized for these governing bodies, as presented in Section 5.2.2. It is highly unlikely that collaboration could take place when members of the collaborative arrangements concerned, such as the provincial river basin and sub-river basin working groups, met only once a year.

Information gained from the meetings and meeting reports indicated the same patterns as those found in the Ping RBC. That is to say, the discussions and interactions among members of the governing bodies concerned in the meetings were very limited, which could be expected, as the same official meeting format always applied, i.e. only the chairperson officially presided, and the secretariat conducted meetings with a similar standardized agenda, as presented in the previous section.

Interviews with the River Basin Sub-committee members also indicated the same feature as that in the Ping RBC case: virtually no contact was made between the secretariat and members, or among the members themselves. For example, a member representing the civil society group indicated that the secretariat contacted him only regarding the meeting, while he never contacted the secretariat. This member also stated that the members

[62] As some representatives of the public sector could not attend Ping RBC meetings, they could send a designated representative instead. These designated representatives were formally registered with the Ping RBC Secretariat.

representing the civil society group in his province contacted each other only when it comes to the meeting (e.g. how to get to a meeting venue) - "*if there is no meeting, we never call each other*"; and, they simply 'return to their place' after the meeting. Similarly, a member representing the civil society group from another province pointed out that the secretariat also contacted him only regarding the meeting, and while there was 'no issue' that necessitated contact between them. This member explained further that he rarely contacted other members by saying, "*they went on with their own business, so did I, and we met only in the meetings*." Indeed, these comments reflected an insufficient sense of interdependency. This is underscored further by the admission of a member from the civil society group that had no idea about the River Basin Sub-committee, and did not participate in its meetings. However, he remained active in the irrigation water user groups in his area.

In addition, a member of the River Basin Sub-committee representing the public sector, who was also appointed as a member and secretary of the Lamphun Provincial River Basin Working Group, provided a bit of picture regarding interactions in this working group. He stated that although he was a secretary, all secretarial work was performed by the URCMS, whose director served as an assistant secretary. This implied that little contact occurred between this member and the URCMS, even if the former was the official secretary.

5.4 Participation in the Ping RBC and its governing bodies

Participation by the non-public sector in decision making is a key element underlying both collaborative water governance and river basin governance (BAKKER & COHEN, 2011; JASPERS, 2003). Indeed, public participation can be simply referred to as "*direct involvement of the public in decision making*" as defined by MOSTERT (2006, p. 154). The RBC framework prescribed that non-public sector representatives from water user groups, LGOs, and experts be included, together with those from the public sector, as members of the RBCs. As discussed in Section 4.4.2, various mandates are assigned to the RBCs (see Box 4.2), thus implying that RBC members would make decisions on various water resources-related issues in respective river basins to achieve those mandates. Based on stipulations in the 2007 Regulation (see Section 4.4.2), the level of public participation in the RBC framework should be the same as that of co-decision making, where decision making power is shared between the public and non-public sector members of the RBCs (MOSTERT, 2006).

As presented in previous sections, the activity arranged for the river basin governing bodies within the Ping RBC framework was limited to meetings only. In addition, the meetings also were limited in number, as they were organized annually (once or twice a year for each governing body). A close examination of these meetings revealed largely one-way communication, where the secretariat informed members of the governing bodies concerned of varied information; for instance, drought and flood situations, and project implementation by the public agencies concerned in the river basin. Thus, participation in the Ping RBC arrangement was confined essentially to the information supply level, which in effect is not 'genuine public participation' (MOSTERT, 2006).

However, one main item on the meeting agenda (see Section 5.3.1) that required decisions from governing bodies was the issue relating to the integrated river basin management and development plan. The following sections describe how participation in this decision making process took place in the Ping RBC framework.

5.4.1 Participation in the Ping RBC

Participation by the Ping RBC members in making decisions that involved the integrated river basin management and development plan occurred in both the first and second annual meetings. In the first meeting, decision making was concerned with approval of a five-year integrated river basin management and development framework[63], and a planning process for an annual integrated river basin management and development plan. Approvals of the final version of the five-year framework already mentioned and the annual integrated river basin management and development plan were the main items requiring decision making at the second meeting.

As presented in Section 5.3.1, consideration and approval was normally put in as the fourth item of the meeting agenda. Thus, regarding this item in the first Ping RBC meeting, the assistant secretary (URCMS Director) presented a general overview of the five-year integrated river basin management and development framework and related planning process; and, asked the members to give their approval. That is to say, he explained to the meeting that the five-year framework was a collection of the plans, and their budget proposals were to be implemented by the public agencies concerned in the Ping River

[63] It was reported that the issue of the five-year planning framework was dropped at the first Ping RBC meeting held in 2013, and only the planning process for the annual integrated river basin management and development plan remained on the agenda concerned.

Basin, which were grouped into the Ping River Basin management and development strategies. These strategies were developed in 2009 and included, for example, watershed conservation and rehabilitation; water resource quality management and pollution control; and, enhancement of participatory river basin management.

A further planning process for pursuance also was outlined to the meeting by the assistant secretary. For example, the five-year planning framework, when approved, would be presented to the respective five provincial river basin working groups, and River Basin Sub-Committee for their approval, before submitting it to the Ping RBC for final approval during its second meeting. He also explained that the five-year planning framework would be used for the public agencies concerned in order to plan their annual integrated river basin management and development plans, which would be collected and incorporated later as the annual integrated river basin management and development plan for the Ping River Basin, and presented to the Ping RBC for final approval during the second meeting.

The meeting always approved the five-year framework and proposed planning process after only a few comments were made. The chairman normally asked the meeting whether there were any objections to the items outlined by the secretariat, to which there was always no response. Probably, this was due partly to the large amount of information being presented, and focus also being placed on the annual integrated river basin management and development plan, which would be approved at the second meeting (at least this was the impression presented by the secretariat).

The procedure for the second meeting was the same as that of the first one. That is to say, the assistant secretary presented an overview of the five-year framework and annual integrated river basin management and development plan as the fourth item on the meeting agenda. It was found based on the meeting reports that sometimes only the annual plan concerned was presented for approval.

Similar to the five-year framework, the annual integrated river basin management and development plan was a collection of project plans, and their budget proposals were to be implemented by the public agencies concerned and LGOs in the river basin. However, their annual budget proposals were prepared by these public agencies and LGOs and submitted to the national budget for allocation (see the following section). They were then grouped into river basin strategies like those collected for the five-year framework. The supporting documents for the five-year framework and the annual plan were voluminous; in practice they were collections of project plans for many public agencies and LGOs located in five

provinces of the Ping River Basin. Ping RBC members always received these documents upon arrival at the meeting.

After the assistant secretary presented the overviews mentioned above, he asked the meeting to approve the five-year framework and annual plan. As observed, members gave more comments or questions regarding the two items than those given during approval of the five-year framework and related planning process in the first meeting. However, these comments or questions largely concerned the planning procedure or certain project plans listed in the framework, or the plan itself, rather than deliberation about water resource needs and how the proposed framework and plan would affect them (cf. Box 2.3). For example, there would be questions on whether certain project plans could be added to the annual plan (e.g. a water source development project), or suggestions related to the planning process (e.g. organized brainstorming sessions, and establishment of a working group on project development).

The meeting always approved the five-year framework and annual plan. Again, this was probably due partly to the large amount of information presented in combination with the urge of the chairman to reach approval, so as 'the work could continue'. It should be noted that the five-year framework and annual plan, presented by the assistant secretary together with DWR or WRO 1 representatives, involved project plans with budget proposals and how they were related to other budget plan frameworks (e.g. the provincial budget plan), and that the approved annual plan would be presented to the NWRC. Thus, the impression was given for the need of approval, so that the annual plan in particular could be processed further by the NWRC, and later presented to the Cabinet for budget allocation.

5.4.2 Participation in the Ping RBC's governing bodies

Participation in making decisions by the governing bodies of the Ping RBC involved the integrated river basin management and development plan. Similar to the Ping RBC, the River Basin Sub-Committee participated in approving both the five-year integrated river basin management and development framework, and a planning process for annual integrated river basin management during its first meeting; and, the final version of the five-year framework and annual plan concerned were dealt with during its second meeting.

A similar procedure was observed at the Ping RBC meetings, where the assistant secretary of the Sub-Committee (also the URCMS Director) presented information about the five-year framework, and planning process or annual plan for the meetings; and then asked the

members for approval. Indeed, a similar set of information as that outlined in its meetings to the Ping RBC, as described above, was presented to the Sub-Committee. With few questions asked regarding certain project plans listed on the five-year framework or annual plan, the meeting always approved them. It should be noted that the Sub-Committee members were given a voluminous support document upon arrival at the meeting, and also the impression that they should somehow approve the plan, or at least the overall plan, in case they have issues with specific items; and then the planning process could continue (e.g. the Ping RBC could then approve the plan).

The provincial river basin working groups were informed in only one meeting about the five-year integrated river basin management and development framework approved by the Ping RBC and the planning process by their assistant secretary (the URCMS or LRCMS Director). They were then informed about the annual integrated river basin management and development plan, which was the collection of project plans and budget proposals for implementation by the public agencies concerned and LGOs within respective provinces, and the provincial river basin working groups were asked to approve it. The meetings always approved the annual plan. Unlike the meetings of the Ping RBC or River Basin Sub-Committee, the chairman (a designated deputy provincial governor) of the Chiang Mai Provincial River Basin Working Group conducted the meetings, while the secretary (the URCMS Director) simply presented information, as he was seen as 'the secretary'. He indeed ordered the second meeting because he preferred the LGOs and public agencies concerned to submit more project plans to the annual one. Therefore, two meetings were held for this working group in 2010 instead of the one that was planned. The chairpersons of the provincial river basin working groups were the provincial governors, who had great power in their respective provinces (see Section 2.4). Therefore, a situation where the chairman played a key role in the meeting and decision making, as observed in Chiang Mai is likely to occur also in other provincial working groups.

The sub-river basin working groups were involved minimally in making decisions concerning the five-year integrated river basin management and development framework, and annual integrated river basin management and development plan. As observed, they were only informed of the five-year framework. However, the sub-river basin working groups played a role in submitting water resource-related project plans to the secretariat in order that they be included in the five-year framework or annual plan. As presented earlier, the sub-river basin working group meetings provided an opportunity for the URCMS and

LRCMS to ask local communities or LGOs located in respective sub-river basins to submit water resource-related project plans. According to a URMCS officer responsible, the water resource-related project plans submitted by LGOs were considered as sub-river basin plans for respective sub-river basins wherever they were situated. If local communities or water user groups wanted to submit the plans concerned to the URCMS or LRCMS, they could do so via LGOs.

Overall, participation in the Ping RBC framework was largely at the information supply level (MOSTERT, 2006). Furthermore, the river basin governing bodies participated in decision making on only the main issues related to the integrated river basin management and development plan, which was found to be influenced by the Ping RBC secretariat, except in the provincial river basin working group setup, where the chairpersons seemed to play a major role. By and large, this situation seemed like a typical case of policy implementation, where the public agency responsible was unwilling to share decision making power with others, especially the general public, although there was a legal framework requiring it to do so. However, in the case of RBC framework implementation, a fundamental question remains as to whether the river basin governing bodies, particularly the RBCs or 'the apex' body of each river basin, actually have decision making power, which could then be shared. From this perspective, the answer is obvious in that they do not have such decision making power, which was reflected clearly by the outcomes produced by the RBC framework, particularly the integrated river basin management and development plan, as discussed in the following section.

5.5 Functions and outcomes of the Ping RBC and its governing bodies

The 2007 Regulation stipulates various mandates for the RBCs (see Box 4.2). It was observed through implementation of the Ping RBC framework that the river basin governing bodies at different levels within this RBC were also established, and several mandates were assigned to them (see Section 5.2.2). This section discusses the functions they performed and the outcomes produced by the Ping RBC framework.

5.5.1 Functions of the Ping RBC and its governing bodies

Although the Ping RBC, River Basin Sub-Committees, provincial river basin working groups, and sub-river basin working groups have been given tasks with many mandates, Section 5.2, 5.3, and 5.4 present evidence that their performance function was very limited,

which mainly concerned the river basin management and development plan. However, other functions related to critical mandates, such as water use prioritization and creation of fair and effective water allocation, have never been performed, especially by the Ping RBC.

It was evident from the previous section that the secretariat of the Ping RBC framework (the URCMS in particular) played a central role in preparing the five-year river basin management and development framework and annual river basin management and development plan. In fact, it collected project plans from the public agencies concerned and LGOs in the Ping River Basin, and presented them for approval to the river basin governing bodies as the five-year framework and annual plans. This was carried out in a rushed manner with little time for consideration. In reaction to this, a Ping RBC member representing the agricultural water user group complained during the meeting that the Ping RBC functioned like 'a rubber stamp'. An examination of the river basin management and development plan, and further planning process after approval from the Ping RBC, revealed that the plan in question was a mere exercise with no real impact, as discussed in the following section. This finding showed that the Ping RBC framework performed practically no functions. As such, the Ping RBC was not even 'a rubber stamp'.

5.5.2 The outcomes of the Ping RBC frameworks

As evidenced throughout the discussions in Section 5.2, 5.3 and 5.4, the outcomes produced by the Ping RBC framework as a whole (PROVAN et al., 2007) were the five-year integrated river basin management and development frameworks, and the annual integrated river basin management and development plans for the Ping River Basin. Also, the nature of these two documents was explained - they were essentially collections of the project plans prepared by the public agencies concerned and LGOs located in the Ping River Basin. It can be seen by this characteristic that the documents were not actually the plans developed by the Ping RBC and its governing bodies. The plans mentioned also were similar to those produced by the old RBC framework, which was implemented from 2002 to 2007 (see Section 4.4.1). Obviously, this was not a 'framework' or 'plan' that would be used for guiding the public agencies concerned and LGOs in developing their objectives and project plans (see Box 4.2 (3); cf. BRAGA & LOTUFO, 2008).

It was observed from the meetings and their documents that an emphasis was placed on the annual integrated river basin management and development plans. In fact, annual plans

only were sent out to other bodies for consideration, according to the Ping RBC secretariat. These bodies included the NWRC, public agencies concerned, and provincial offices.

The Ping RBC secretariat submitted the approved annual plans to the DWR, who acted as the NWRC secretariat, and in turn passed on these plans to the NWRC for consideration. The NWRC has met only 12 times since its inception in October 2007, and no meeting was organized in the three year period of 2011 to 2013. No item on approval of the annual plans in questions was on the agenda in any of these 12 meetings. There was no further action taken, and the plans concerned ended at the DWR.

As found from the Ping RBC meetings and their documents, this incident had never been reported by the secretariat, which instead, informed the meeting about approval of the annual budget proposals and project implementations by the public agencies concerned. This gave the impression, to at least the members of the river basin governing bodies representing the non-public sector that the annual plans approved by the Ping RBC actually resulted in approval of the annual budget proposals, and projects being implemented by the public agencies concerned. This was because the annual plan for the Ping River Basin was simply a collection of the project plans derived from the annual budget proposals of the public agencies concerned, as previously mentioned. Also, the secretariat provided an indication that these public agencies would submit their project plans to their respective ministries for annual budget allocation by the Cabinet after the mentioned river basin annual plan had been approved by the Ping RBC. However, this indication was misleading and contradicted the actual practice of the public agencies concerned.

The Ping RBC secretariat indicated that the approved annual plan of the Ping River Basin would be sent to the public agencies concerned in order to process the project plans contained in it further, so as to get budget support. However, these public agencies did not need approval from the Ping RBC before proceeding. In fact, they had their own frameworks, directives and budget calendar given by their respective departments, based on, for example, the Government Administrative Plans (see Section 4.1.3) and annual budget calendar of the Bureau of Budget (BOB).

The annual budget calendar of the BOB starts around October of a given calendar year. Thus, the budget calendars for public agencies located in provincial areas might start even earlier, in order that their respective regional offices and departments have an overview by October of all project plans and budget proposals for implementation in the following

fiscal year[64]. Regarding this, WRO 1 would have to go through the same process; however, it never truly sought 'an approval' from the Ping RBC, but only submitted its project plans for inclusion as the annual plan of the Ping River Basin. As being part of local government, the LGOs have their own planning and budget allocation framework; however, they also can submit project plans that exceed their financial capacity directly to the relevant public agencies, for example, the RID for a medium scale water source. In any case, the public agencies concerned are not required to submit their project plans to the RBCs for approval before they propose them to their respective departments and ministries for annual budget allocation.

Apart from the NWRC and public agencies concerned, the Ping RBC secretariat stated that the approved annual plan of the Ping River Basin would be sent to the provincial offices for inclusion in the provincial annual action plan, which could be submitted also for annual budget allocation (see Section 2.4). However, it is highly unlikely that the annual plan mentioned can be incorporated into respective provincial annual action plans because there are regulations and procedures that regulate their planning process. For example, a project plan must address the strategies of a province, which are indicated in its four-year provincial development plan, and it would be assessed by a relevant sub-committee appointed by the integrated provincial administration committee. Indeed, lists of possible measures or projects for each strategy have been suggested in the four-year provincial development plans, and naturally, the provincial office itself proposed most of the project plans included in the provincial annual action plan, as observed in the case of Chiang Mai[65]. At any rate, the annual plan of the Ping River Basin would make little or no impact as far as the provincial annual action plan is concerned.

Evidently, the Ping RBC framework generated no outcomes. The five-year integrated river basin management and development frameworks, and annual river basin management and development plans it produced, would be mere outputs with virtually no impact on the Ping River Basin. It also was apparent that the decision making power of the Ping RBC was not comprehensive or legally bound to other bodies. This, together with evidence regarding its management, collaboration and participation aspects, clearly indicates that the Ping RBC is not a 'river basin committee' as defined by MOLLE et al. (2007; see Box 2.5). In fact, it

[64] This next fiscal year starts on October 1, of the next calendar year.

[65] For example, of the 51 projects included in the provincial annual action plan of the 2014 fiscal year, 44 were proposed by the Chiang Mai Provincial Office.

cannot be considered any type of river basin organization or delegated water governance partnership (see Box 2.2).

5.6 Chapter summary

This chapter presents the 2007 RBC framework implementation using the Ping River Basin Committee as an illustrative case. It initially discusses formation of the Ping RBC framework, which started in 2008 with the nomination and appointment of Ping RBC non-public sector members. Then, the River Basin Sub-Committee on River Basin Management and Information, five provincial river basin working groups, and 20 sub-river basin working groups were appointed by the Ping RBC. The appointment of the latter was delayed until completion in 2012, the last year of the first four-year term of the full RBC framework (the term of the Ping RBC non-public sector members ended in 2012).

The chapter continues with discussion on management of the Ping RBC and its governing bodies. It was evident that, instead of the participant-governed form as suggested in the 2007 Regulation, they were managed by the lead organization form, where the secretariat (WRO 1, and the URCMS in particular) played a central role. In terms of collaborative process, it was found that the Ping RBC framework was characterized by a lack of face-to-face dialogue, and little interaction between the Ping RBC secretariat and members of the Ping River Basin's governing bodies, or between the members themselves. Furthermore, participation in the Ping RBC arrangement was seen to be largely at the information supply level, which does not constitute true public participation. As public participation suggests shared decision making power, a critical question for the Ping RBC is whether it has comprehensive decision making power, which could be shared. From the only function performed concerning the integrated river basin management and development plan, the Ping RBC apparently had no comprehensive decision making power that was legally bound to other bodies.

As a whole, the Ping RBC framework only produced the five-year river basin management and development frameworks and integrated river basin management and development plans. These frameworks and plans were its [the Ping RBC] only outputs with practically no impact on the Ping River Basin. All in all, the Ping RBC cannot be considered as any kind of river basin organization or delegated water governance partnership.

6. DISCUSSION: COLLABORATIVE WATER GOVERNANCE IN THE THAI ADMINISTRATIVE CONTEXT

Evidence presented in the previous chapter clearly shows that the Ping RBC and its governing bodies have no authority, very limited function, and virtually no outcomes. The Ping RBC members representing the non-public sector referred to the Ping RBC as 'a paper tiger' or 'a *yak*[66] with no club', which was an accurate reflection. At first glance, evidence indicates that WRO 1 via the URCMS and LRCMS as the Ping RBC secretariat, and the DWR by extension, obviously captures and directs the Ping RBC framework in order to achieve its own mandates as the secretariat.

To understand the full situation, however, the interwoven factors in the Thai administrative context, in which all players in the Ping RBC framework are embedded, need to be looked at, particularly those representing the public sector. Thus, this chapter discusses the effects of the Thai administrative system and its reform on Ping RBC implementation, and the legal infrastructure underlying this implementation.

6.1 The Thai administrative system and Ping RBC implementation

The 2007 Regulation stipulates establishment of the NWRC and 25 RBCs. It also requires that the DWR serves as the NWRC secretariat, and its WROs act as secretariats of RBCs located in areas that they are responsible for (see Section 4.4.2). With this provision, the 2007 Regulation essentially delegates the DWR as a responsible agency for implementing the 2007 RBC framework. As presented in Section 5.1, various public agencies from different administrative levels also were involved in the Ping RBC and its governing bodies. Thus, the Thai administrative system, where the DWR and public agencies involved are its elements, plays a critical role in current implementation of the RBC framework.

[66] A *yak* is a Thai mythical creature, which uses a club as a weapon. Without a club, the yak poses no threat or fear despite its sheer size. 'A *yak* with no club' metaphor rightly reflects the nature of the Ping RBC, given its large number of members and also its 26 governing bodies at the river basin, provincial, and sub-river basin level. However, if it has no club, it has no authority and produces no outcome.

6.1.1 Effects of the administrative system on the Ping RBC framework

Thailand is a unitary state, which implies that the administrative system is the same throughout the country, and also the rules and regulations are by and large the same nationwide. As such, public agencies involved in implementation of the RBC framework, including the DWR, must observe general rules and regulations that are similar; while simultaneously following their own specific criteria. This obviously hinders collaborative effort such as that in the RBC framework, where collaboration and participation are required not only from the public agencies concerned, but also the non-public sector under a new entity (i.e. an RBC). The following sections discuss the effects of the administrative system on implementation of the RBC framework, as evidenced in the Ping RBC setup.

6.1.1.1 WRO 1 as a public agency

As part of the DWR, WRO 1 is a central administrative agency located in a provincial area. As such, its units including the URCMS and LRCMS also retain this same status, even though they are located in the provincial administration jurisdiction [i.e. Chiang Mai for the former, and Kampaengphet for the latter (see Figure 2.1)]. Unlike their counterparts at the provincial administration level, the URCMS and LRCMS are not under the supervision of the provincial governors concerned. They are accountable for WRO 1, who in turn reports directly to the DWR. The same holds true for other WROs and their CMSs. In pursuance to the 2007 Regulation, WRO 1 was indicated as the Ping RBC secretariat. In practice, WRO 1 assigned this task further to its units (URCMS and LRCMS), who also act as the secretariat of other governing bodies in the Ping River Basin (see Section 5.2.3).

As a public agency, WRO 1 and its units must observe the relevant rules and regulations applied to all public agencies. Concerning RBC framework implementation, they must follow at least two main regulations: the Ministry of Finance's Regulation on Expenditure for Training Workshops, Events, and the International Conference of 2006 and its updates; and, the Royal Decree on Meeting Allowance of 2004, together with relevant announcements on the eligibility of committees and sub-committees as well as their secretaries and assistant secretaries for meeting allowance, and its rate. These regulations prescribe in detail relevant expenses regarding the meetings of the Ping RBC and its governing bodies. For example, a member of the Ping RBC and Ping River Basin Sub-Committee would receive a meeting allowance of 1,200 baht, and 800 baht, respectively, for attending a meeting; and members needing accommodation would receive an allowance

not exceeding 1,200 baht per room (one room for one person), or 750 baht per room (one room for two persons). The CMS officer responsible for organizing each meeting must submit a formal request for a budget from WRO 1, as practiced by the URCMS officers concerned.

In addition, WRO 1 and its units must follow specific directives given by the DWR; for example, those concerning water source development and rehabilitation. Regarding Ping RBC implementation, the directive for establishing the sub-river basin working groups, as presented in Section 5.1.4, is a good example. However, there were other directives that WRO 1 and its CMSs had to follow such as an annual plan for the RBC framework, which corresponds to an annual budget allocated to the DWR; and, common report templates designed for the RBC framework. Furthermore, WRO 1 must also adhere to other directives, which reflect compliance of the DWR with government policies; for instance, administrative reform (see Section 6.2) and the decentralization effort.

Thus, as the nature of a public agency dictates, WRO 1, and the URCMS and LRCMS for that matter, were not 'free' to implement the Ping RBC framework. They had to follow the rules and regulation concerned, which in turn sanctioned their actions. Indeed, the DWR had to comply with various laws and the government policies concerned on its own. From a public administration perspective, this can be considered as a normal situation (PETERS & PIERRE, 2012). However, when it comes to implementing the RBC framework, this normal practice may not be suitable because more flexibility is needed (e.g. in organizing a meeting), while collaboration and participation must also be encouraged [or forced in the case of public agencies (O'TOOL JR., 2010)]. As discussed in Section 2.2.4, a legal infrastructure is needed to facilitate RBC framework implementation in order to realize this collaborative water governance policy (see Section 6.3). Alternatively, the RBC framework and its implementation need to be readjusted at least by taking the reality of a public agency into consideration (see Section 7.2).

6.1.1.2 The public agencies involved in the Ping RBC framework

There were various public agencies involved in the Ping RBC arrangement, as presented in Section 5.1. They were obliged, like WRO 1, to follow the relevant rules and regulations as well as the laws and government policies concerned. These public agencies must also address the directives given to them by their superiors; and, in the case of LGOs, must fulfill the mandates in their jurisdiction.

Despite attempts by the 2007 Regulation to involve these public agencies, it could only oblige them to have passive involvement by attending a meeting and providing their project documents when requested. Again, this can be considered as normal practice for public agencies, as they have their own priorities and directives, which they duly have to follow. Furthermore, the 2007 Regulation was not comprehensive vis-à-vis relevant laws and regulations, from which these priorities and directives were derived. Thus, the RBC framework was the 'very last' priority for the public agencies and LGOs involved, as discussed in Section 5.3.1.

As it stands at present, the public agencies and LGOs concerned are unlikely to change their action regarding the RBC framework. This is not because they are resistant to change; but in this case, they simply continue to perform their own duties, while the RBC framework has become their additional, low priority task. As presented above, the relevant legal infrastructure or readjustment of the RBC framework and its implementation are needed in order to make the framework a priority for these public agencies and LGOs. This would encourage or force the public agencies and LGOs concerned to be involved in the setup actively, thereby obliging them to collaborate with their non-public sector counterparts.

6.1.2 Effects of the administrative levels on the Ping RBC framework

Apart from rules and regulations, and directives that the public agencies and LGOs concerned have to follow, there are also the administrative levels that regulate these public entities: central, provincial, and local (see Section 2.4; Figure 2.1). Generally, public agencies are distinguished clearly in terms of their administrative levels and their mandates. For example, the Chiang Mai Provincial Irrigation Project (CIP) is a unit of the Royal Irrigation Department (RID) at the provincial administrative level, and responsible for irrigation-related tasks in Chiang Mai, while Irrigation Regional Office 1 is a unit of RID at the central administrative level and supervises, among others, CIP and the Mae Tang Irrigation Project (see Section 4.3.1). Implementation of the Ping RBC framework also was influenced by these administrative structures, especially the central and provincial administration.

6.1.2.1 The central administration

Apparently, the RBC framework is designed for implementation in provincial areas nationwide. From a DWR perspective, this fact already poses a challenge. Unlike several other departments from central administration, the DWR has no provincial offices at the provincial administrative level. Thus, it has no official link to the provincial administration, and also no 'local' unit to facilitate RBC framework implementation in respective provinces (cf. the RID presented above). Instead, the DWR has to rely solely on its WROs and river basin coordination and management sections (CMSs)[67]. Regarding Ping RBC implementation, WRO 1 delegated the task to the URCMS and LRCMS, who were responsible for two provinces (Chiang Mai and Lamphun), and covered three (Tak, Kampaengphet, and Nakornsawan), respectively.

The RBC framework was unfolded in implementation of the Ping RBC setup, and it was evident that public sector members of the river basin governing bodies largely represented central administration at the river basin level (i.e. the Ping RBC and Ping River Basin Sub-Committee). All but one of the assigned public agencies for the Ping RBC represented central administration (11 of 12 agencies; see Table 5.4), while most public sector members of the Ping River Basin Sub-Committee (see Table 5.5) also came from this administrative level (14 of 18 members). From the perspective of Thai administration, these arrangements were intended to be above the provincial administration level, which would be involved mainly with governing bodies of the river basin at the provincial and sub-river basin level.

However, as discussed in Section 5.1.1.2, the central public agencies concerned simply assigned the directors of their regional offices to the Ping RBC. With different internal structures, certain regional office directors were appointed as member of more than one RBC. The Director of WRO 1 was an *ex officio* member and secretary of four RBCs, including the Ping RBC. In practice, it is difficult already for these members to participate in Ping RBC activities. The same likely holds true for the public sector members concerned with the Ping River Basin Sub-Committee, who were appointed by the Ping RBC. This is because they were also regional directors of the central public agencies concerned, and maybe assigned as members of certain RBCs as well. Indeed, some were appointed also as Ping RBC members (e.g. directors of Irrigation Regional Office 1 and Marine Regional

[67] There are 31 CMSs in total from ten WROs.

Office 1). In addition, this situation is complicated further by the fact that these public sector members were obliged to follow specific mandates and directives given by their superiors, as discussed in the previous section.

6.1.2.2 The provincial administration

As observed in the Ping RBC setup, the provincial administration was relied upon for implementing the RBC framework. It was involved from the beginning through the provincial recruitment sub-committees to identify eligible persons for appointing as Ping RBC non-public sector members (see Section 5.1.1.1). Five provincial governors also were seen as *ex officio* members of the Ping RBC; one of whom was selected as its chairperson. In addition, the provincial governors also were appointed as chairpersons of the Ping River Basin Sub-Committee and provincial river basin working groups, with the latter including some provincial public agencies as their members (see Table 5.5 and 5.6). District officers were also assigned as chairpersons and members of the sub-river basin working groups (see Table 5.7).

Administratively, it deems logical to include those from the provincial administration in the river basin governing bodies, as they have authority in provincial areas that is exercised especially through provincial governors (see Section 2.4). However, it seems that only the DWR needs provincial administration, and not vice versa. Evidently, the Chiang Mai Governor, as the chairman and a member of the Ping RBC, never attended the meetings, nor did the governors of Lamphun, Tak, Kamphaengphet or Nakornswan, who also were *ex officio* members, but they sent their representatives instead of their selves.

Again, this situation does not indicate that the provincial administration resists or fails to provide collaboration in implementing the RBC framework. From the provincial administration's perspective, the framework is yet another activity in which it has to take part. However, the provincial administration also has its own mandates. In other words, the government and Ministry of Interior gives all provinces (76 in total) specific mandates and directives that can be grouped into four main areas: economy, social development, security, and administration. Under the integrated provincial administration scheme (see Section 2.4), all provincial public agencies have to support the provinces, while at the same time address their own specific mandates and directives assigned by their respective departments and ministries (i.e. central administration).

Thus, to realize the RBC framework in general, and implement it at the provincial and sub-river basin level in particular, the DWR would have to readjust its implementation approach, while taking the nature of the provincial administration previously mentioned into consideration. This might mean a compromise with the idea of using a basin as a managerial unit, as described in a collaborative water governance/river basin governance approach (BAKKER & COHEN, 2011; JASPERS, 2003). However, scholars suggest going beyond this idea and building sustainable water governance on existing administrative structure (GIORDANO & SHAH, 2014; WARNER et al., 2008). From the public administration's point of view, a comprehensive legal infrastructure is required to facilitate RBC framework implementation that would bind together all provincial offices (and provincial governors) and provincial public agencies, as well as the central public agencies concerned (see Section 6.3).

6.2 Thai administrative reform and Ping RBC implementation

Administrative reform efforts have been intensified in Thailand since the late 1990s (see Section 2.4), with emphasis placed on the efficiency aspect derived from new public management (see Section 2.4; BOWORNWATHANA, 2000). These reforms have been institutionalized by laws, and responsible agencies were established (e.g. Office of the Public Sector Development Commission - OPDC). Accordingly, public agencies are obliged to follow these laws, and also the directives issued by the agencies in charge of the national administrative reform such as the OPDC and Bureau of the Budget (BOB). It was observed that administrative reform also influenced Ping RBC framework implementation, especially through the DWR. The following sections provide an overview of Thai administrative reform in practice and its effects on Ping RBC implementation.

6.2.1 Elements of administrative reform

The Thai government has implemented various administrative reform initiatives since the economic crisis in 1997 in order to improve its public agencies. The aims of this improvement have centered on such issues as better service quality; integrated public management, accountability and transparency; and, high performance as well as a recent focus on internationalization in context of the ASEAN Community[68] (OPDC 2008; 2013b).

[68] The ASEAN Community is an initiative of the Association of Southeast Asian Nations (ASEAN) to promote more integration in the region based on three main pillars: the ASEAN Political-Security

The reform efforts include, for instance, organizational restructuring and management reform.

One of the main measures for public organizational restructuring was to follow the Reorganization of Ministries, Sub-Ministries and Departments Act of 2002, which resulted in establishing new central administrative agencies, e.g. the Ministry of Natural Resources and Environment, where new departments such as the DWR and Department of Groundwater Resources were created. In addition, some central public agencies were dissolved and their tasks and personnel transferred to other agencies. For example, the Accelerated Rural Development Department was disbanded; and its tasks and personnel were transferred to three new departments, including the DWR, Department of Rural Roads, and Department of Disaster Prevention and Mitigation.

Restructuring was realized also through creations of new types of public agencies. For instance, several autonomous public organizations (POs) were established as implementing units following the (Autonomous) Public Organization Act of 1999, e.g. the Agricultural Research Development Agency (ARDA) and Highland Research and Development Institute (HRDI)[69] (BOWORNWATHANA, 2012). In addition, service delivery units (SDUs) were created through regulations of the Office of the Prime Minister as 'quasi-autonomous divisions under a department' to support the government in performing some internal functions; for instance, the Royal Thai Mint and Printing Bureau (LORSUWANNARAT & BURACOM, 2010).

Besides organizational restructuring, the OPDC introduced a result-based management approach to reform management in the Thai public sector (KOIKE, 2013). This approach was implemented in 2004 and consists of three components: performance agreement (goal setting), performance appraisal, and incentives for performance (KOONMEE, 2011). As a framework for performance evaluation, the OPDC introduced the concept of the 'Balanced Scorecard' that comprised four perspectives: effectiveness, service quality, efficiency, and organizational development' (LORSUWANNARAT & BURACOM, 2010; OPDC, 2013a). Public agencies are required to develop annual performance agreements reflecting these four perspectives. They also have to negotiate with the OPDC about performance indicators and scoring criteria to be used as well as intended targets; and report their implementation

Community, ASEAN Economic Community, and ASEAN Socio-Cultural Community. It is to be implemented in 2015; see www.asean.org.

[69] ARDA and HRDI are supervised by Ministry of Agriculture and Cooperatives.

progress to the OPDC three times yearly, using e-SAR (Self-Assessment Report) (LORSUWANNARAT & BURACOM, 2010; OPDC, 2014).

The incentives are in the form of cash rewards and allocated to individual officers based on the performance of their agencies, that is to say, the agreed targets (the performance score: 5) or at least achievement of the standard performance score (3 or above)[70]. Regarding the annual performance appraisal, the external bodies perform this task at the organizational level, i.e. TRIS Corporation Limited for all public agencies concerned and 76 provincial offices; as well as the Office for Standards in Education for all of the higher education institutes concerned (KOONMEE, 2011). According to KOONMEE (2011, p. 146), 'various concepts and appraisal justifications' were used to assess the performance of individual officers, which is likely to be carried out by their superiors following the Civil Service Act of 2008. In any case, however, the performance scores given will range from 1 to 5, where those who receive scores of 3 or above are eligible for the performance incentives mentioned[71].

6.2.2 Effects of administrative reform on the Ping RBC framework

It was observed that performance agreement influenced the implementation of the Ping RBC as the main element of management reform. The following sections discuss performance agreement in practice with reference to the RBC framework and its effects on framework implementation, as observed in the Ping RBC arrangement.

6.2.2.1 The DWR and WRO 1 performance agreement

The DWR has engaged in the performance agreement practice since 2004. Following the performance evaluation framework of the OPDC, the DWR performance agreement comprised four perspectives, i.e. effectiveness, service quality, efficiency, and organizational development. The DWR performance agreement for the 2011 fiscal year is presented as an example in Table 6.1. Once a given performance agreement is signed, the DWR delegates the 'targets' to its line units which in turn develop performance agreements accordingly.

[70] The OPDC's official correspondence on reward allocation for the 2012 fiscal year, dated November 7, 2013

[71] Ibid.

Table 6.1: The DWR performance agreement for the 2011 fiscal year (selected)

Indicator	Target	Result	Score
1. Effectiveness perspective			
- Adequate water for use in target areas	3	1	1.00
- Water resource management with participation from target groups	5	5	5.00
- Alleviation of water shortage in target communities	5	1	1.00
- Preparation of integrated water resource management plan	1	3	5.00
- Number of public personnel, the general public, river basin organizations, LGO representatives, and networks that attended capacity building activities on water resource management	100% (15,000)	5	5.00
2. Service quality perspective			
- Service satisfaction	85%	n/a	1.00
- Implementation of anti-corruption measures	5	5	5.00
3. Efficiency perspective			
- Percentage of overall budget disbursement	94%	1.5	1.00
- Implementation of the law development plan	5	5	5.00
4. Organizational development perspective			
- Achievement in the public service standard (the fundamental level)	5	-	5

Source: DWR (2011, pp. 22-25)

Thus WRO 1, as one of the DWR's line units, is tasked with certain objectives that contribute to the achievement of the DWR's overall annual targets. Consequently, WRO 1 distributes these targets among its own units (see Figure 5.5). For example, one of the performance indicators for WRO 1 effectiveness for the 2009 fiscal year was 'achievement in supporting a budget planning process for integrated budget plans at the river basin level, and provincial and provincial cluster development plans'. WRO 1 assigned this performance indicator (i.e. the target) further to its five CMSs, including the URCMS and LRCMS. The Director of WRO 1 signed the WRO 1 performance agreement with the DWR by following the performance agreement scheme. Furthermore, directors of the WRO 1 line units signed their performance agreement with WRO 1. This performance agreement practice (KOONMEE, 2011) showed that it follows a top-down approach, where the targets are decided at a higher level, while the lower level could only acknowledge these targets.

6.2.2.2 The Ping RBC framework in the performance agreement context

Based on related documents, the RBC framework was not addressed explicitly in the general DWR performance agreements. However, some performance indicators (i.e. targets) involved the Ping RBC framework, as found in the URCMS performance agreements. For example, meeting arrangements for the Ping River Basin governing bodies (see Section 5.1) was set as a URCMS performance indicator in the 2009 fiscal year; while support for preparation of the integrated river basin management plan, and provincial and provincial cluster development plan was included in the following fiscal year.

Apparently, the performance indicators mentioned above were not meant to assess performance of the Ping River Basin governing bodies, but rather their secretariat (i.e. WRO 1) and the URCMS. A closer look at these performance indicators also revealed that they indicated the strategic behavior of the public agencies in question and their attempt to fulfill the performance agreement exercise (DE BRUIJN, 2007; DECHARIN, 2003), rather than using it to assess their performance and enhance strategic management (KAPLAN & NORTON, 1996).

The URCMS performance indicator for the meeting arrangements of the Ping River Basin governing bodies mentioned above included a description that explained how this target would be achieved in five levels. For instance, an achievement at level 4 (score: 4) regarding the Ping RBC meeting arrangements was attained when the third meeting was held; and level 5 (score: 5) was reached when the Ping River Basin-related problems were collected, and Ping RBC meeting reports and summaries were prepared. Regarding the performance indicator for supporting preparation of the integrated river basin management plan, and provincial and provincial cluster development plan, the five-level achievement framework also applied. Here, an achievement at level 4 (score: 4) was indicated by the five-year integrated river basin management and development framework, and annual integrated river basin management and development plan being presented to the Ping RBC; while level 5 (score: 5) was achieved when the annual plan in question was sent to the provincial offices concerned and the DWR.

In addition, there was a performance indicator associated with capacity building on water resource management, which would contribute to the Ping RBC framework, at least in theory. The target groups for this performance indicator were public personnel, the general public, river basin organizations, LGO representatives, and ‘networks’ (water user groups created by the DWR). The total number was set by the DWR, e.g. 15,000 persons in the

2009 fiscal year (see Table 6.1). Later, the divided number was distributed to WROs and CMSs. For example, in the fiscal year mentioned, the URCMS was assigned with a target number of 420 persons. Accordingly, this assigned number was set as an indicator of achievement at level 5 (score: 5). However, from descriptions of this performance indicator, 'capacity building activities' were not specific activities organized to enhance knowledge and understanding on water resource management, but activities conducted by the URCMS, such as meetings to establish sub-river basin working groups and 'networks', and training workshops for small-scale water source database development. Attendees of these activities were then considered as target groups.

The situations mentioned above confirm the challenges faced by the Thai public sector management reform, where use of the Balanced Scorecard "*focuses more on the search for KPIs (key performance indicators) and ignores the construction of strategic maps*" (BOWORNWATHANA, 2010, p. 225). Indeed, the Balanced Scorecard in the Thai public sector context became 'the KPI Scorecard' with the focus on performance evaluation (DECHARIN, 2003).

Regarding the Ping RBC framework, the performance indicators involved did not really contribute to its implementation. That is to say, these performance indicators did not address the 'targets' on collaboration and participation in the Ping RBC framework. For example, the performance indicator on providing support for the river basin and provincial/provincial cluster planning process focused mainly on the river basin management and development framework/plan; while the target could be achieved simply by sending the plan to the DWR and provincial offices concerned. As discussed in the previous chapter, this reflected well on the activities of the Ping River Basin governing bodies, where the river basin management and development framework/plan was always the main issue. At the same time, all the issues concerning collaboration and participation were absent from the scene, even though they are critical elements of collaborative water governance, as well as being indicated in the 2007 Regulation.

Thus, it can be seen that the Ping RBC-related performance indicators only helped WRO 1 and the URCMS to fulfill their obligation regarding the performance agreement. However, their ambition to do more in implementing the Ping RBC framework was blocked somehow due to these performance indicators (DE BRUIJN, 2007). Thus, the DWR needs to readjust its practice in the performance agreement when it comes to RBC framework-related targets. For example, the DWR should encourage WROs to set more ambitious

targets, e.g. to have a river basin development and management plan included in the annual provincial development plan, instead of merely 'sending' it to provincial offices. This could be facilitated also by adjusting the existing laws and regulations concerned, or introducing new ones; for instance, amending the regulations on integrated provincial administration that require provincial offices to include a river basin management and development plan in their annual provincial development plan, given that relevant criteria are observed (e.g. contribution to the respective province's natural resource development strategy).

6.3 Legal infrastructure and Ping RBC implementation

Legal frameworks have been discussed rarely in the context of Ping RBC implementation. In fact, the 2007 Regulation was presented only once during the first meeting of the Ping RBC and Ping River Basin Sub-Committee. However, it is clear that comprehensive legal frameworks are needed, as discussed in the previous sections. Conversely, it is also apparent that a relevant legal infrastructure (e.g. BINGHAM, 2011) was not in place to facilitate realization of the RBC framework.

This omission clearly affected RBC framework implementation, as evidenced by Ping RBC arrangements, where the public agencies responsible (especially the URCMS) relied on only some regulations for merely routine Ping RBC functions that concentrated on meeting arrangements (e.g. meeting allowance). However, no laws or regulations are in place to allow the Ping RBC to function as the governing body of the Ping River Basin, and thereby enabling collaborative water governance. Indeed, the whole RBC framework setup is regulated by only one regulation, which is the Office of the Prime Minister's Regulation on National Water Resources Management of 2007 [the 2007 Regulation], and by its nature, is not comprehensive. The following sections discuss the 2007 Regulation as legal infrastructure for the RBC framework, and water law that could provide a more comprehensive legal foundation for the RBC effort.

6.3.1 The 2007 regulation as legal infrastructure for RBC implementation

The RBC framework was implemented following the Office of the Prime Minister's Regulation on National Water Resources Management of 2007, which is one of several Office of the Prime Minister's Regulations issued by the Prime Minister, with Cabinet approval to facilitate public administration. In the Thai legal context, the Prime Minister's

Regulation is a subordinate legislation (SUMANTAKUL, 2004), which is lowest in terms of legal hierarchy (SAKSAENG, 2011)[72]. According to UWANNO (2004), the Prime Minister's Regulation also is low in terms of legal status when compared to other types of subordinate legislation such as the royal ordinance and ministerial regulation. It is especially a kind of subordinate legislation issued by the Prime Minister to regulate the administration with no backup of any other primary legislation (i.e. Acts); thus, it can be enforced upon only public agencies and state-owned enterprises, and cannot be applied to the private sector (UWANNO, 2004).

Apparently, the 2007 Regulation alone cannot provide comprehensive legal infrastructure for water resource management, as outlined in its provisions (i.e. the National Water Resources Committee [NWRC] and RBC framework). Due to its legal nature, the 2007 Regulation can provide the NWRC and RBCs with only very limited authority, which is clearly evident when it comes to water use requests and permission, where the NWRC has had no conclusive answers to requests since 2003[73]. This issue would be out of discussion for the RBCs, as one of them initially passed it on to the NWRC. It is clear, however, that the 2007 Regulation only regulates water use and water allocation for the public sector and state-owned enterprises[74]. Thus, priority and quantity of water to be used, as well as water allocation measures (see Box 4.2), if created at all, will not be applied to the private sector because it is beyond the legal authority of the 2007 Regulation, as the Office of the Prime Minister's Regulation (see UWANNO, 2004). Clearly, relevant legal frameworks are needed in order to realize collaborative water governance in the form of the RBC and enable it to perform its functions effectively.

The integrated provincial administration scheme, which started almost at the same time as the RBC framework in this study, could provide a comparative picture of how comprehensive legal frameworks can facilitate its implementation. This scheme was implemented following the Royal Decree on Integrated Provincial and Provincial Cluster Administration of 2008, which was issued as part of the State Administration Act (No.7) of 2007. In a way, the 2008 Royal Decree can be seen as a translation into implementation of

[72] The Thai legal hierarchy is arranged as follows: 1) constitution, 2) organic laws, 3) Acts or equivalence (e.g. Codes and palace law), 4) royal decrees issued in pursuant to the constitution, 5) subordinate legislation (SAKSAENG, 2011).

[73] The NWRC meeting report No.3/2551 and No.2/2552, dated October 31, 2008 and July 15, 2009, respectively.

[74] The NWRC meeting report No.3/2551, see also UWANNO (2004).

the integrated provincial administration policy indicated in the aforementioned Act. It should be noted that provinces and provincial clusters can propose their budget plans, as a provision in the Act indicates, and they are considered as 'public agencies', as defined in the Budget Procedure Act of 1959. This ensures that the provinces and provincial clusters are eligible to make budget requests based on the Act concerned.

Similar to the 2007 Regulation, the 2008 Royal Decree indicates the setup of the Committee on Integrated Provincial and Provincial Cluster Administration Policy (CIPP) to oversee implementation of the integrated provincial administration scheme, chaired by the Prime Minister. This national committee also has established 18 provincial clusters covering the entire country. However, it is apparent that the focus of the 2008 Royal Decree is placed on individual provincial administration, with comprehensive prescriptions provided. Regarding implementation of integrated provincial administration in each province, a provincial committee has been established and chaired by a provincial governor; and charged with the main tasks of developing a four-year provincial development plan and annual action plan, as well as monitoring and evaluating implementation of these plans. The committee members are represented by all public agencies and state-owned enterprises whose offices are located in respective provinces, LGOs, the general public, and private sector. Despite criticism of this being the recentralization of central administration (see MUTEBI, 2004), this arrangement for provincial administration indicates a move toward collaborative governance, where not only the provincial governor and his/her staff at the provincial office make decisions about provincial development, but also representatives from LGOs and the private sector.

In a way, the setup and tasks mandated, as mentioned above, are similar to that of the RBCs. However, there are some differences, especially in terms of authority and financial support. The 2008 Royal Decree renders authority on the integrated provincial administration committee to develop a four-year provincial development plan and annual action plan that oblige other public agencies and LGOs to follow. Furthermore, it also obligates the BOB to allocate sufficient budget for realizing an annual provincial plan. These two points are in stark contrast to the RBC framework, as shown in the case of the Ping RBC, where there is no actual river basin development plans prepared by the committee itself, and the so-called 'integrated river basin development plans' are not recognized by the BOB.

In addition, differences can be seen also from the implementation processes of the integrated provincial administration framework that are outlined in the 2008 Royal Decree. For example, a public survey must be conducted in order to obtain local needs and assess local capacity upon which a four-year provincial development plan will be developed. After which, it must be presented for discussions in a meeting attended by the chiefs of all public agencies, state-owned enterprises, LGOs located in the province concerned, and representatives of the general public and private sector. Regarding supervision of the implementation of the plans, inspectors from the Office of the Prime Minister and Ministry of Interior will monitor and evaluate the performance of the provinces and provincial clusters, from which monitoring and evaluation reports must be submitted to the CIPP twice per year. Apparently, the 2007 Regulation lacks such provisions.

6.3.2 Water law as legal infrastructure for RBC framework implementation

The RBC framework, as prescribed in the 2007 Regulation, clearly shows the intension to involve the non-public sector in managing water resources in respective river basins. This collaborative water governance project also can be seen as a Thai government effort to open up its public sector and move toward collaborative governance with participation from the non-public sector. However, as discussed in the previous section, the 2007 Regulation is not a comprehensive legal framework, as virtually no authority is granted to either the NWRC or RBCs. This also implies that no decision making power is delegated to the non-public sector representatives involved in these governing bodies (see BAKKER & COHEN, 2011; MOSTERT, 2006). Furthermore, by its legal nature, the 2007 Regulation can be enforced only upon public agencies and state-owned enterprises, while water resource issues also involve non-public sector users such as those in agricultural and industrial areas.

From a legal infrastructure perspective, comprehensive legal frameworks are needed in order to redress the shortcomings of the 2007 Regulation and push forward collaborative governance in the Thai water sector. However, there is no primary legislation (i.e. Acts) from which such legal frameworks can be devised; also, it should be reiterated that 33 water-related laws exist, but none of them comprehensively deals with water resources. Thus, in the Thai administrative and legal context, an Act is necessitated, which is second only to the constitution and organic laws in terms of its legal hierarchy (see SAKSAENG, 2011). Specifically, a Water Act is required (cf. LEBEL et al., 2009), where principles are

laid out not only for water resource management based on a collaborative water governance concept, but also for authority over water resources in general such as water resource management, water rights and water allocation.

The Water Act will be enforced as a national law upon both the public and private sector. Regarding water resource management, governing bodies such as the NWRC and RBCs, will be given full authority to manage water resources at the national and river basin level. However, this authority needs to be stated expressly in the Water Act. For example, the NWRC should have the power to prepare a national water resource development and management master plan, and approve water-related plans or projects before submitting a budget allocation to the BOB (after THE FACULTY OF LAW, THAMMASAT UNIVERSITY, 1993). Meanwhile, KAOSA-ARD et al. (2001b) suggest, among other things, that the water law should grant RBCs and their governing bodies authority to issue water allocation measures with legal sanctions for offenders. In addition, the Water Act should grant power to the RBCs in creating a river basin development master plan. This would oblige the public agencies concerned and LGOs to follow in preparing water-related plans or projects, which must be approved by respective RBCs before including them in their budget proposals. The authority delegated, especially to the RBCs and their governing bodies, will empower the non-public sector representatives involved to participate meaningfully, as their actions will have binding effects on the course of water resource management in their respective river basins or sub-river basins.

As observed from Ping RBC implementation, WRO 1 and its line units were solely responsible for activities of the Ping RBC and its governing bodies, and they became 'the lead organizations' in arranging Ping RBC management, even though officially they were a member of this RBC with the specific task of secretary (see Section 5.2). Evidently, the Ping RBC and its governing bodies could not act on their own. The Water Act can redress this issue by specifying how the RBCs will be managed, e.g. by the participant-governed or NAO form (PROVAN & KENIS, 2008). Like the State Administration Act (No.7) discussed in the previous section, the Water Act can include a provision that enables RBCs to be recognized as 'public agencies' and eligible for making budget requests following the Budget Procedure Act of 1959. Thus, the RBCs will have their own budget for achieving their mandates. In addition, a supporting structure also can be prescribed in the Water Act, for example, the Cabinet Water Bill (see Section 4.2.2), in which provisions establish RBC and sub-river basin committee offices. Unlike current RBC secretariats, which are DWR

regional units assigned to the task (see Section 5.2.3), these offices are to be created specifically for supporting the RBCs and sub-river basin committees.

With the Water Act as a primary legislation that sets basic principles as mention above, necessary subordinate legislation, such as royal decrees and ministerial regulations, can be issued to outline in detail how these principles are to be realized. For example, all the Water Bills discussed in Section 4.2.2 include a provision that establishes and demarcates a river basin by means of a royal decree. The 2005 version of the Thammasat University Water Bill indicates further that at least one public hearing must be conducted before the royal decree concerned can be issued, and a public hearing guideline will be prescribed in a ministerial regulation. Details on water use (e.g. type of commercial agriculture requiring water permits) also are to be defined by a ministerial regulation, as appeared in the NLA Water Bill.

All in all, a comprehensive legal infrastructure for the RBC framework can be derived from the Water Act. Essentially, decision-making power over water resources is initiated and delegated to the RBCs, which by design consists of not only public sector representatives, but also non-public sector ones[75]. As such, meaningful participation from the non-public sector can be expected. By authority of the Act, decisions made by RBCs also will be recognized as official and legally bound. From the legal and public administration viewpoint, the Water Act will be able to redress the limitation of the 2007 Regulation in realizing the RBC framework[76].

However, to paraphrase MOLLE et al. (2001, p. 12), the Water Act is a 'high' scenario, which is very difficult, if not impossible, to reach due to lack of political support. As a matter of fact, no water act has been passed since drafting the first water bill in 1992.

[75] Previous water bills were criticized for their lack of public participation and public sector dominance (e.g. KAOSA-ARD et al., 2001b). However, later drafts such as those discussed in Section 4.2.2 constantly indicate that representatives from the non-public sector should be included as RBC members in proportion to those from the public sector, as showed in Table 4.1. It should be noted from Table 4.1 that LGOs are considered as part of the non-public sector (see footnote no. 49).

[76] This does not imply that the Water Act is a panacea for the Thai water sector, as various international cases have shown a large gap between visions set in water law and reality after this law was implemented (e.g. KEMERINK, MÉNDEZ, AHLERS, WESTER, & VAN DER ZAAG, 2013; LAUBE, 2010; MEMON, & WEBER, 2010; VON KOPPEN & SCHREINER, 2014). However, knowledge is available on critical issues such as river basin institutional arrangement, water availability and water use, water rights and water pricing derived from the Thai context (e.g. KAOSA-ARD et al., 2001b; KOONTANAKULVONG, HOISUNGWAN, CHAOWIWAT, & SUTHIDHUMMAJIT, 2012; MOLLE, 2001; MOLLE, CHOMPADIST, SRIJANTR, & KEAWKULAYA, 2001; THOMAS, 2005), and it can be utilized to reduce the gap when implementing the Water Act.

Currently, as of 2014, there is also no movement regarding a water act or major water sector reform. Thus, 'low' scenarios (MOLLE et al., 2001, p. 12) need to be developed from existing laws and regulations in order to complement the 2007 Regulation in supporting RBC framework implementation (see Section 7.2).

6.4 Chapter summary

This chapter discusses RBC framework implementation in the Thai administrative context and its supporting legal infrastructure. Generally, public agencies have to address relevant rules and regulations, government policies concerned, and directives assigned by their superiors. This poses a challenge to RBC framework implementation, as the public agencies involved have their own priorities and directives, resulting in passive participation in the RBC setup. Likewise, the RBC framework implementing units (e.g. WRO 1) must also comply with relevant rules and regulations as well as their own mandates, including the performance agreement exercise, which has proved to be of little value to RBC framework implementation.

The Thai administrative level, especially central and provincial administration, also complicates realization of the RBC framework further. As observed in the Ping RBC arrangement, some representatives of central public agencies became members of more than one RBC, rendering it impractical for their involvement, while provincial offices also had their own mandates and directives. Apparently, the DWR had to readjust its RBC implementation approach when taking the nature of the Thai administrative system into account. A comprehensive legal framework also is needed in order to make the RBC framework a priority of the public agencies and LGOs concerned.

Indeed, the 2007 Regulation cannot provide a comprehensive legal infrastructure for RBC framework implementation, as it is a type of subordinate legislation issued by the Prime Minister without backup from any primary legislation; thus, it carries very limited authority and can be enforced only upon public agencies and state-owned enterprises. Essentially, virtually no power is delegated to the NWRC or RBCs, thus water-related regulations, if issued at all, cannot be applied to the private sector. Therefore, primary legislation in the form of a Water Act is required to provide a comprehensive legal infrastructure for RBC implementation. In effect, with authority delegated by the Water Act to RBCs in particular, the non-public sector representatives would have meaningful involvement, as RBCs would be recognized by the public agencies and LGOs concerned,

while their decisions would be legally binding and enforceable to both the public and private sector. However, the Water Act is a ‘high’ scenario, which is unlikely to be achieved in the near future.

7. CONCLUSION

The RBC framework was introduced officially in 2007, and has been implemented nationwide by the DWR since then. From the Ping RBC implementation, it is evident that the RBC and its governing bodies are far from achieving the mandates outlined in the 2007 Regulation. The following sections draw conclusions on the RBC framework as a collaborative water governance effort, as well as providing outlooks and policy recommendations for this effort.

7.1 The RBC framework: much ado about nothing

The 2007 Regulation prescribed the RBC framework consisting of the NWRC and RBCs, with the former being responsible for overseeing water resources-related issues at the national level, and the latter for various tasks concerning water resource management at the river basin level. In reflecting a broader trend in the Thai administrative context, which places emphasis increasingly on non-public sector participation, the 2007 Regulation indicated that representatives from water user organizations and LGOs as well as local experts be appointed as RBC members together with public sector representatives. In addition, some RBC members representing the water user organizations also were appointed as NWRC members. The RBC framework can be seen as collaborative water governance, where the non-public sector is involved in managing water resources (BAKKER & COHEN, 2011).

Following provisions of the 2007 Regulation, the responsible agency - the DWR and its units concerned (i.e. WROs) - has duly implemented the RBC framework. As observed, the NWRC played a negligible role in providing national water resource management guidelines. Indeed, it remains as a 'paper committee' (ABERS, 2007) with no meeting since 2011.

From unfolding implementation of the RBCs in the Ping RBC setup, the Ping RBC was formed with representatives from both the public and non-public sector, as did its governing bodies at the river basin, provincial and sub-river basin level. However, the Ping RBC arrangement, as a collaborative water governance project, evidently suffered lack of participation and collaboration. Participation in this arrangement was confined to 'information supply' rather than 'co-decision making', as suggested in the Regulation concerned (MOSTERT, 2006). Indeed, evidence showed that the annual integrated

development and management plans for the Ping River Basin were not followed up by other public agencies or bodies, indicating that the RBC had no decision making power with legally binding effects. In other words, there was no authority delegated to the Ping RBC setup that empowered members of its governing bodies, especially those representing the non-public sector in making decisions on water resources-related issues in the river basin. In addition, collaboration barely existed in this setup, where interactions among members of the governing bodies occurred only during infrequent meetings, solely arranged by WRO 1, and the DWR unit concerned in the area.

Apparently, the Ping RBC and its governing bodies performed virtually no functions, and generated practically no outcomes that affected the management of water resources in the Ping River Basin. Indeed, they could not be considered even in the form of river basin governing bodies (cf. MOLLE et al., 2007; NOWLAN & BAKKER, 2007), despite their official status, mandates and elaborate structure. With all this evidence, together with the fact that a national budget as well as time and effort were spent over the years for this project, the Ping RBC arrangement was clearly much ado about nothing. It should be reiterated that the Thai administrative system is the same throughout the country, where all public agencies operate under the same relevant policies, laws and regulations. As the RBC framework has been implemented nationwide in the other 24 river basins, a similar outcome to that of the Ping RBC setup can be expected.

Collaborative governance in the Thai water resource sector, as expressed in the form of the RBC framework, has been far from successful. The causes for this unsuccessful project obviously lay in the Thai administrative system. However, they were not due to resistance towards collaborative governance by the public agencies involved because they had to share authority with the non-public sector, or that certain public agencies still made 'the ultimate call' (AGRANOFF, 2006, p. 62), as seemed apparent when observing the role played by WRO 1 as the lead organization (PROVAN & KENIS, 2008) in the Ping RBC context. Also, the causes were not a case of 'policy meets reality', where the RBC framework encountered existing water resources-related public agencies or state-owned enterprises (MOLLINGA & BHAT, 2010). Rather, it was a case of no authority being delegated to the RBC framework in the first place. From a public administration perceptive, this authority will not only sanction the NWRC and RBCs in managing water resources, but also empower them vis-à-vis other elements of the administrative system (e.g. the central and provincial administration). Ultimately, this authority will force

relevant public agencies to participate actively in the RBC framework (O'TOOL JR., 2010), which by default now requires involvement of the non-public sector. Unfortunately, the aforementioned authority was absent; thus, implementing units like WRO 1 could only perform some routine functions in the name of RBCs, while the other public agencies involved continued their business as usual. Without authority, the RBCs are truly 'a *yak* with no club'.

7.2 Outlooks and policy recommendations

In principle, the RBC framework is supposed to provide a solid foundation for water resource management in the respective river basins (see Section 4.2.2), with its key features including involvement of the non-public sector and use of a river basin as a unit for managing water resources. However, as unfolded in the Ping RBC framework, it is far from achieving its overarching goal on integrated water resource management at the river basin and national level, with the public participation stated in the preamble of the 2007 Regulation.

Notwithstanding, the RBC framework continues to be implemented, as the 2007 Regulation is still being enforced. Section 5.1.5 presents the recruitment process performed to nominate selected representatives from the non-public sector as Ping RBC members for a new four-year term. This process was conducted also for 24 other RBCs, based on the NWRC Announcement on Qualification, Nomination Procedure, Appointment, and Term and Termination of Office of the River Basin Committee Members of 2013. As of present (August 2014), new RBC non-public sector members have not been appointed officially due to political situations[77], but the same patterns regarding RBC framework implementation, as discussed in Chapter 5, are likely to be repeated. For example, according to a URCMS officer, meetings in the 2014 fiscal year were organized for the acting sub-river basin and provincial working groups in the Ping River Basin, in order to have an integrated river basin management and development plan that could be sent to the provincial offices concerned (see Section 5.5.2). Indeed, DWR news updates[78] showed that

[77] After the Yingluck government dissolved parliament on December 9, 2013, Thailand was run by a caretaker government, which was overthrown by a military coup on May 22, 2014. Led by Prime Minister Prayuth Chan-ocha, the current government only assumed office on August 30, 2014. Thus, the NRWC had no chairperson (Prime Minister or assigned Deputy Prime Minister) during this period and could not appoint RBC non-public sector members officially.

[78] Available at www.dwr.go.th

meetings were arranged also in other river basins for their acting governing bodies, with agendas including approval of the integrated river basin management and development plan.

Given that the RBC framework continues to be implemented in the same context as discussed in Chapter 6, it is highly likely to generate the same outcome (or rather no outcome), as observed in the Ping RBC arrangement (Section 5.5). Policy changes at the national level and/or DWR are required in order avert this similar result and realize collaborative water governance, in which the non-public sector, especially water users, play an important role in managing water resources.

7.2.1 Policy changes at the national level

Section 6.3.1 clearly presents that the 2007 Regulation, on which the RBC framework is based, is not comprehensive in terms of its legal authority. To redress this shortcoming ideally, a water law should be promulgated, and although it can be considered as a 'high' scenario and rather difficult to form (MOLLE et al., 2001), it is much needed in order to improve Thailand's water governance, in which among other things, authority and responsibility are still fragmented (see footnote no. 32; HILL, FURLONG, BAKKER, & COHEN 2008) and water rights have not been defined clearly (KAOSA-ARD et al., 2001b).

Again, this recommendation does not imply that a water law is a silver bullet for the Thai water sector (see also footnote no. 79). However, to begin with, it would provide a crucial and comprehensive legal framework for collaborative water governance, especially regarding authority in water resource management (Section 6.3.2). While some challenges ahead would remain (e.g. COHEN & DAVIDSON, 2011), the river basin governing bodies would have full authority and official recognition, and the RBCs would no longer be 'a *yak* with no club'. Indeed, the RBCs would be better positioned to avoid challenges such as policy coverage and accountability when their authority and governance structure, as well as mandates, are defined clearly (COHEN & DAVIDSON, 2011). If a water law is indeed passed, extended knowledge would be readily available for its operation on the ground. For example, KAOSA-ARD et al. (2001b) suggest that a 'water management block' (i.e. a sub-river basin or its parts) be created within a river basin. While an RBC oversees the river basin at the policy level, a water management block committee of mainly non-public sector members becomes an operational unit at the local level. This suggestion takes into account the fact that Thailand has conflicts over water resources which normally occur at the sub-

river basin level (RAYANAKORN, n.d.); thus, local people should find solutions themselves with support from relevant public agencies. Unfortunately, this well-grounded suggestion cannot be implemented without a strong legal backup, and it certainly is not discussed in the case of the 2007 Regulation.

Water law promulgation is definitely an ideal policy change at the national level. However, the fact remains that it is rather difficult to reach, as previously discussed. Thus, another more probable option would be to issue a new Office of the Prime Minister's Regulation on National Water Resource Management (the new Regulation) to replace the 2007 Regulation, as this could help to induce some changes regarding collaborative water governance in the country. As an Office of the Prime Minister's Regulation can be issued by the Prime Minister with Cabinet approval, the process of passing it is relatively simple and quick. Also, it should be noted that despite its inferior legal authority compared to an Act or other subordinate legislation, the Office of the Prime Minister's Regulation can still be enforced upon public agencies and state-owned enterprises (see Section 6.3.1).

The new Regulation should establish river basin governing bodies as types of 'collaborative watershed partnerships' (see Box 2.2), with a focus on developing a river basin master/action plan. As SABATIER et al. (2005, p. 6) explain, the collaborative watershed partnership "*provides a forum in which management plans and implementing actions are negotiated, then turned over to member agencies for formal legal actions*." By way of legal authority from the Office of the Prime Minister's Regulation, the new Regulation can include a provision requiring the public agencies and state-owned enterprises concerned to follow the river basin master/action plan in developing their water resources-related projects/programs. With this provision, some authority is indeed delegated to the new river basin arrangements, thereby empowering the non-public sector representatives involved.

In the existing Thai administrative context (Chapter 6), the current form of RBCs (Table 4.5; Figure 4.5) should be abolished. An emphasis for the new river basin arrangement should then be placed at the sub-river basin and provincial level. In other words, there is a scaling-down of focus from the (main) river basin to the sub-river basin level, while at the same time taking into account the reality of the Thai administration (WARNER et al., 2008), where the provincial administration is very prominent (see Section 2.4). Accordingly, the river basin governance structure should consist of a provincial river basin working

group/partnership and those sub-river basin working groups/partnerships located in a particular province[79]. According to COHEN and DAVIDSON (2011, p. 8), watershed boundaries can be considered as 'policy choice, rather than as an unquestionable scale at which good water governance must take place'. Thus, sub-river basin boundaries can be arranged to fit within a respective province for the purpose of this new river basin governance scheme.

The structure of a provincial river basin working group/partnership should in principle comprise representatives of water resources-related public agencies and state-owned enterprises located in the respective province as well as those representing the provincial industrial and commercial sector (e.g. a provincial chamber of commerce) and sub-river basins (cf. Table 5.6). By following standard practice in the provincial administration, a provincial governor should be included as an *ex officio* member and appointed chairperson of this working group/partnership. Members of the sub-river basin working groups/partnerships should represent mostly local water user groups (e.g. *muang fai* groups and irrigation water user groups [Section 4.3]) and TAOs/municipalities located in the area (cf. Table 5.7)[80]. Their chairperson should also be a local water user group representative to be included as an *ex officio* member in the provincial river basin working group/partnership. The main mandate for a provincial river basin working group/partnership would be to develop a provincial river basin master/action plan that addresses water resources-related issues, while taking into account sub-river basin perspectives (provided by the sub-river basin working groups/partnerships). As presented above, public agencies and state-owned enterprises must follow the master/action plan when preparing their water resources-related projects/programs for implementation in a particular province.

Accordingly, the DWR also is required to change its operation when implementing the new river basin governance scheme on the ground. Essentially, the implementing units (i.e. WROs) of the DWR need to assist the provincial river basin governing bodies in creating the plans mentioned previously (cf. the integrated river basin management and development plan presented in Section 5.4.1.). The DWR also has to facilitate the sub-river basin working groups/partnerships so that their needs and concerns regarding water

[79] There are 254 sub-river basins in total; for the numer of sub-river basins located in each river basin, see Appendix II.

[80] It was recommended following a proposal by KAOSA-ARD et al. (2001b) for a water management block committee.

resources are articulated. To this end, more activities (e.g. meetings, planning workshops and field visits) should be organized for these governing bodies. At the same time, capacity building (e.g. participation capacity, technical capabilities on water resource management and planning skills) also is necessary for both the river basin governing bodies and WROs (TANKHA & FULLER, 2010). As these activities are to be organized within the respective province, they would put less burden on the members of the river basin governing bodies, especially the members of the non-public sector (see Section 5.2.1). As the provincial river basin master/action plan will have an officially binding effect, the members of the provincial river basin working group/partnership, especially the public sector representatives, would be encouraged to participate actively in those actions. The resulting water resources-related projects/programs would also address local needs and problems.

7.2.2 Policy changes at the DWR

It would be imperative for the DWR to change its course regarding RBC framework implementation if either a water law or new Regulation is passed. For example, radical changes are certain in the case of a water bill containing provisions, as those promulgated in the NLA Bill (Section 4.2.2). Such provisions would result eventually in the DWR no longer playing a role in the RBC project, as a new department (i.e. the ONWRC) and its line units would assume this task. However, it is also likely that the two recommendations for policy changes at the national level will never take place, meaning that the RBC framework remains the same (see Section 4.4.2 and 5.1). Indeed, this is current reality. With no changes from the higher policy level, the DWR should make some policy changes by itself, in order that the RBC framework may generate certain meaningful outcomes. Such policy changes should be geared toward a rearrangement of the RBC framework and an alteration of the ways the framework is implemented by its implementing units.

The 2007 Regulation prescribes a basic structure of an RBC (e.g. the maximum members; see Section 4.4.2.3) and lays out its mandates (Box 4.2). However, the DWR put forth the current structure of the RBC framework (i.e. the river basin governing bodies within the RBC; Figure 4.5) in its capacity as the NWRC secretariat. In the same capacity, the DWR should amend this structure in order to make it less complex, and more easily manageable. Thus, the river basin sub-committee should be abolished, as it did not provide any assistance to the RBC regarding ‘river basin management and information’ (Section 5.1.2; Table 5.5). As a result, an amended RBC structure would consist of the RBC (as required

by the 2007 Regulation) as well as the provincial river basin and sub-river basin working groups. In addition, the structures of the latter two bodies should be readjusted by following those proposed for the river basin governing bodies under the new Regulation, presented in the previous section. With this structural rearrangement, a focus should be shifted from the RBC to the river basin governing bodies at the sub-river basin and provincial level, where more action should be taken as described below.

It was evident that the DWR opted to push the RBC toward a task it could achieve under the current administrative system and legal framework, i.e. river basin water resource management planning, as this issue was always the main item on the agenda at meetings of the river basin governing bodies. Given the present circumstances, the DWR should continue in this direction because other RBC mandates would be extremely difficult to reach. However, the DWR needs to set new directives for its implementing units (i.e. WROs) in dealing with the RBC and its governing bodies.

Initially, the DWR should provide a directive for the WROs to facilitate the river basin governing bodies in developing a river basin management and development plan for the respective provinces. This would be essentially an attempt to redress the shortcoming of no official binding effect or practical impact on the so-called 'integrated river basin management and development plan' at the river basin level (see Section 5.5.2). It should be made clear to the WROs that the provincial river basin management and development plan would be developed based on the needs and/or problems suggested by the sub-river basin working groups (now mainly consisting of local water user representatives) located in a particular province. Once the plan is 'approved' by the RBC, it would be proposed to the provincial offices, relevant public agencies and PAOs.

It is normal practice for local communities and organizations to propose projects/programs to the public agencies concerned, or LGOs located in the area, for consideration and inclusion in their plans and budget proposals. With no official way linked to the national budget allocation process (cf. an annual provincial action plan – Section 6.3.1), a river basin management and development plan has to follow the practice mentioned above to be realized and have impact. In fact, WROs also implement water source development and rehabilitation projects; thus, the DWR should indicate that WROs give priority to project proposals in this area if they come via provincial river basin working groups through their river basin management and development plans.

The DWR should request that WROs actively organize activities for the river basin working groups at the sub-river basin and provincial level, which is in line with the directive on provincial river basin management and development planning mentioned previously. It was apparent from the Ping RBC setup that activities organized for the river basin governing bodies were only formal and infrequent meetings, with virtually no interactions occurring in between. Thus, less formal meetings should be organized regularly (e.g. bimonthly or quarterly) to provide forums for working group members to interact and have face-to-face dialogue (ANSELL & GASH, 2008) on water resources-related issues in their areas, with time allocated for discussion on the provincial river basin management and development plan. In addition, the capacity building described earlier (e.g. participation capacity and planning skills) should be arranged for both WROs and the working groups concerned (TANKHA & FULLER, 2010).

All in all, regarding RBC framework implementation, policy changes made by the DWR would lead hopefully to the provincial river basin management and development plan being taken up by public agencies and eventually put into action; and thus, improve performance of the RBC arrangement. In addition, through regular meetings as well as capacity building activities, interaction between the sub-river and provincial river basin working groups may induce social learning over time, such as knowledge gain, trust building, and group agreement (KOONTZ, 2014); which is essential for success in the collaborative water governance effort (BRUMMEL, NELSON, SOUTER, JAKES, & WILLIAMS, 2010).

SUMMARY

The river basin committee (RBC) framework was first introduced in Thailand in 2002, and the current one adopted in 2007 has been implemented in all 25 river basins located in the country ever since. By all accounts, the RBC framework is innovative as far as Thailand's administrative system and water resource sector are concerned. It was only recently that the former started to promote non-public sector participation, and the underlying legal framework expressly requires that representatives of the non-public sector, such as water user organizations and local experts, be included in the RBC together with those representing the public agencies concerned. The latter envisions the RBC as a new mechanism for managing water resources by using a river basin as a managerial unit. Based on the RBC framework's prescription, it can be seen that Thailand is moving toward collaborative water governance, where both public and non-public sector representatives take part in decision making on water resource-related issues in their respective river basin.

This study empirically examines the implementation process and outcomes of the RBC framework by using the Ping RBC arrangement as an illustrative case. It aims specifically to explore the formation and management of the RBC, its collaborative processes and participation, and the outcomes it generates. To this end, semi-structured interviews were conducted with key informants such as the officials responsible from Water Resources Regional Office 1 (WRO 1), and Ping RBC members; and an informal interview was applied as well with some DWR officials. In addition, relevant activities were observed through non-participant observation, while related documentary data, e.g. documents on the RBC framework, also were collected. The data gathered were analyzed by means of qualitative content analysis.

It was found overall that the Ping RBC framework was established by following relevant directives. Ping RBC members include representatives from the public sector such as the Royal Irrigation Department (RID) and Department of Water Resources (DWR), as well as the provincial governors concerned and representatives from the non-public sector, including water user organizations (agricultural, industrial, commercial, service, and tourism sectors), local government organizations (LGOs), and the expert group; while WRO 1 serves as the secretariat. In addition, other governing bodies were established as well, including one river basin sub-committee, five provincial river basin working groups, and 20 sub-river basin working groups who, similar to Ping RBC members, represented

both the public and non-public sector at the river basin, provincial, and sub-river basin level.

It was discovered that regarding RBC management the Ping RBC and its governing bodies were governed by the lead organization-governed form, where WRO 1 played the leading role and left no room for involvement from other members. For example, it called the meetings and prepared their agenda. Indeed, meetings were the only activity organized for these river basin governing bodies and they were infrequent (e.g. twice per year for the Ping RBC). Furthermore, they were organized with a formal format, where the officer responsible normally provided information to the meeting, with virtually no deliberation or discussion. With these meetings being the only activity where members of the river basin governing bodies could get together, it was apparent that face-to-face dialogue, which is a crucial element in leading to others elements in a collaborative process, such as trust and shared understanding, was simply non-existent. Interaction between the secretariat and members of the river basin governing bodies, as well as among the members also failed to occur.

Participation in the Ping RBC setup involved just information sharing, as members of the Ping RBC and its governing bodies were provided with only data on, for example, drought and flood situations. The governing bodies of the Ping River Basin, especially the Ping RBC, took part in approving river basin management and development frameworks as well as annual river basin management and development plans. However, their approval was unnecessary because the frameworks and annual plans in question were a collection of project plans gathered from the public agencies concerned and LGOs located in the river basin. They were prepared based on relevant policies and directives, with no need for approval from the Ping RBC setup before submission for national budget allocation. Since the frameworks and annual plans were the only outputs produced, it was therefore apparent that the Ping RBC framework performed virtually no functions to fulfill its mandates such as a water resource management plan, water user priority or water allocation.

Evidently, the Ping RBC framework is an ineffective mechanism that is characterized by lack of collaboration, participation and outcomes, which have impacts on water resource management in the river basin. A similar result can be expected from the other 24 RBCs operating under the same administrative system and legal framework. Therefore, Thailand is still far from achieving collaborative governance in its water resource sector. Clearly, this unsuccessful RBC framework was influenced by the Thai administrative system; for

instance, the public agencies involved have to follow their own policies and directives, thereby failing to make the RBC framework their top priority and only passively participating in the setup. However, the underlying cause is due largely to the RBC framework's lack of authority. This is because the legal framework regulating the RBC framework has limited legal authority; consequently, virtually no authority is delegated to this arrangement. Accordingly, the RBC framework has no full authority regarding water resource management as its decisions, if any, can be enforced upon only public agencies and state-owned enterprises. Furthermore, it also has less authority when compared to other public bodies governed by superior legal frameworks; as such, it cannot force active participation in the RBC arrangement, and is not officially recognized (e.g. by the budget allocation system). It can be seen as important that with no authority delegated, non-public sector representatives do not share any decision making power despite their inclusion into the framework concerned.

Therefore, to avert the same result generated by the RBC framework in moving toward collaborative water governance, policy changes are needed regarding its authority and implementation process at the national level, or at the DWR. Ideally, a change is required at the national level by passing a comprehensive legal framework, i.e. a Water Act. By this law, the RBC framework's authority in managing water resources is secured and the framework itself is officially recognized. Arrangements for implementation of the RBC framework also can be prescribed, e.g. a budget allocation system recognizing the RBC framework and creating the RBC's own office. However, this option is rather difficult to achieve, if not impossible, due to the lack of political support.

A more probable change at the national level would be to issue a new regulation that revises the RBC framework, which can be done more easily than passing a law. Essentially, under this new regulation, the new RBC framework would be based at the provincial level. As such, the RBC would be abolished, while the provincial RBC and its governing bodies would be transformed to 'collaborative watershed partnerships' focused on a provincial river basin master/action plan. By this new regulation, the public bodies concerned would be obliged to follow the plan mentioned when preparing their water resource-related projects/programs, which would be applicable within authority of the regulation. In addition, diverse activities (e.g. meetings and capacity building) should be organized in order to support both the river basin governing bodies and implementing units of the DWR.

The DWR should change its policies regarding implementation of the RBC framework, if there is no change at the national level, and the RBC framework continues to be carried out under the current regulation. It is essential in this circumstance for the DWR to encourage a revision of the RBC structure in order to make it less complex and more manageable, and shift the focus from the RBC itself to the river basin governing bodies at the provincial and sub-river basin level. Besides capacity building activities, and frequent and less formal meetings, the DWR should also direct its implementing units to facilitate the river basin governing bodies in order to develop a river basin management plan for respective provinces. This should be based on the problems and needs of the sub-river basins located in those particular provinces; and presented through the public agencies and LGOs concerned for consideration and inclusion in their own plans. This might be the only way to increase the likelihood of some elements of the river basin management plan being realized, given that the RBC framework has no authority or official recognition.

ZUSAMMENFASSUNG

Das Konzept der Wassereinzugsgebiets-Komitees (WEK) wurde in Thailand erstmals 2002 eingeführt, und die aktuelle Fassung von 2007 wurde bis heute in allen 25 Fluss-Einzugsgebieten des Landes umgesetzt. Auf alle Fälle ist das WEK-Konzept eine Neuerung für Thailands Administration und den Wasser-Sektor. Erst in jüngerer Zeit wird dort Partizipation des zivilen Sektors propagiert, und die gesetzlichen (the Office of the Prime Minister's Regulation on National Water Resource Management of 2007) verlangen ausdrücklich, dass Vertreter der Zivilgesellschaft, wie Wasser-Nutzer-Organisationen und lokale Experten zusammen mit den Vertretern der öffentlichen Einrichtungen in die WEKs einbezogen werden. Das WEK wird als neuer Mechanismus für das Management von Wasser-Ressourcen verstanden, der das Wassereinzugsgebiet als Management-Einheit nutzt. Mit den Vorgaben des WEK-Konzepts bewegt sich Thailand hin zu einer kollaborativen Wasser-Steuerung, bei der zivile und öffentliche Sektor-Vertreter an der Entscheidungsfindung zu Ressourcen-Fragen in ihrem Wassereinzugsgebiet beteiligt sind.

Diese Untersuchung betrachtet den Umsetzungs-Prozess und die Leistungsabgaben des WEK-Konzepts und nutzt dazu das WEK des Ping-Flusses als illustrativen Fall. Sie zielt darauf, die Einrichtung und das Management des WEKs, seine Zusammenarbeit und Partizipation und die Ergebnisse, die es erzielt, zu erkunden. Zu diesem Zweck wurden teilstrukturierte Interviews mit Schlüsselpersonen, wie den Funktionären des Regionalen Wasser-Ressourcen-Amts 1 (WRO 1), den Ping WEK-Mitgliedern, und offene Interviews mit einigen Funktionären des Wasser-Ressourcen-Departments geführt. Weiterhin werden wesentliche Aktivitäten nicht-teilnehmend beobachtet, und entsprechende Dokumente zum WEK-Konzept gesammelt. Die Daten werden mit Methoden der qualitativen Inhaltsanalyse ausgewertet.

Das Ping-WEK-Konzept enthält die folgenden Direktiven: Zu den Ping-WEK-Mitgliedern gehören Vertreter des öffentlichen Dienstes, wie z.B.des Königlichen Bewässerungs-Departements, des Wasser-Ressourcen-Departments, die betroffenen Provinz-Gouverneure sowie Vertreter der Zivilgesellschaft, zu denen Wasser-Nutzer-Organisationen (landwirtschaftliche, industrielle, kommerzielle, dienstleistende und touristische) gehören, sowie lokale Körperschaften und eine Experten-Gruppe. Das WRO 1 dient als Sekretariat des Komitees. Auch weitere Steuerungs-Gremien wurden eingerichtet, wie ein Wasser-Einzugs-Sub-Komitee, fünf provinzielle Wassereinzugsgebiets-Arbeitsgruppen und 20 Sub-wassereinzugsgebiets-Arbeitsgruppen, die vergleichbar zu den Ping-WEK-Mitgliedern

sowohl dem öffentlichen als auch dem zivilen Sektor auf den 3 Ebenen Wassereinzugsgebiet, Provinz und Sub-Wassereinzugsgebiet angehören.

Es konnte festgestellt werden, dass das Ping WEK Führungs-Organisations-gesteuert war, wobei das WRO 1 diese Führungsrolle hatte und keinen Raum für das Engagement anderer Mitglieder ließ. Es berief die Sitzungen ein und gab die Tagesordnung vor. Tatsächlich waren die seltenen Sitzungen, - höchstens zweimal jährlich - die einzige Aktivität des Ping Komitees. Diese wurden sehr formell abgehalten, wobei der verantwortliche Beamte den Teilnehmern Informationen vortrug, ohne weitere Wortmeldungen oder Diskussion. Da diese Sitzungen die einzige Aktivität war, bei der die Mitglieder zusammenkommen konnten, war es offensichtlich, dass ein persönlicher Dialog, der ein Schlüsselelement für weitere Stufen im kollaborativen Prozess ist, wie Vertrauen und geteiltes Verständnis, schlichtweg nicht stttfand. Auch gab es keine Interaktion zwischen dem Sekretariat und den Mitgliedern oder zwischen den Mitgliedern untereinander.

Partizipation im Ping WEK war auf Informationsaustausch begrenzt, wobei die Mitglieder und Funktionsträger des Komitees mit Daten versorgt wurden, wie z.B. über Dürre- oder Flut-Ereignisse. Die Leitung des WEK engagierte sich bei der Bestätigung des Ping Einzugsgebiets-Managements-und Entwicklungskonzepts, und insbesondere des jährlichen Managements- und Entwicklungsplans. Jedoch war es eigentlich gar nicht nötig, diesen beiden Dokumenten zuzustimmen, denn die betreffenden Konzepte und Pläne wurden aus einer Abfrage bei den öffentlichen Ämtern und lokalen Körperschaften im Einzugsgebiet nur nebeneinandergestellt. Entwickelt wurden diese Einzelpläne aus einschlägigen Politikvorgaben und Direktiven, die keine Zustimmung des Ping WEKs brauchten, um für die nationale Budgetzuweisung eingereicht zu werden. Da diese Konzepte und Pläne aber das einzige Leistungsergebnis des WEKs waren, wurde es offensichtlich, dass das WEK-Konzept letztlich nichts leistete um sein Mandat zu erfüllen, weder Wasser-Resoourcenmanagement Plan, Wassernutzer-Priorität oder Wasser-Zuteilung beeinflusste, oder gar festlegte.

Offensichtlich ist das WEK-Konzept ein unwirksamer Mechanismus, ohne Zusammenarbeit, Partizipation und Leistungen, die eine Wirkung auf das Wasser-Ressourcen-Management im Einzugsgebiet haben. Und einen ähnlichen Befund kann man auch für die weiteren 24 WEKs im Land erwarten, da sie unter dem gleichen Verwaltungssystem und Verordnungshintergrund operieren. Thailand ist noch weit enfernt davon, eine collaborative Steuerung seiner Wasserresourcen zu erreichen. Ursächlich dafür ist eindeutig das

Verwaltungssystem. So müssen die öffentlichen Einrichtungen, die im WEK engagiert sind, vorrangig ihren eigenen Politiken und Richtlinien folgen, und damit geben sie dem Engagement im WEK nur nachrangige Priorität und verhalten sich so passiv wie möglich in ihrer Beteiligung. Dies liegt daran, dass das WEK-Konzept nicht mit Autorität ausgestattet ist, und deshalb wird dem WEK konsequenterweise auch keine reale Autorität gegeben, auch nicht für das Wassermanagement und die dafür nötigen Entscheidungen. Wenn je doch, dann würde das nur die öffentlichen Dienststellen und Staatsbetriebe betreffen, nicht aber die zivilgesellschaftlichen Akteure. Aber auch innerhalb der Administration hat das WEK weniger Autrität gegenüber allen Akteuren, die von höherrangigen Direktiven gesteuert sind, und so kann es aktive Partizipation nicht wirklich einfordern, und wird auch offiziell nicht wirklich wahrgenommen (z.B. vom Budget-Zuweisungs-System). Solange dem WEK keine Autrität zugewiesen wird, warden die Nicht-Regierungs-Vertreter im Komitee auch keine eigene Entscheidungsbefugnis teilen, auch wenn sie formal als Mitglied gelten.

Daher sind politische Änderungen auf nationaler Ebene oder im Department für Wasser-Ressourcen nötig, die dem WEK Autorität und Entscheidungsgewalt zuweisen, wenn es Fortschritte in Richtung auf kollaborative Wasser-Ressourcen-Steuerung bewegen soll. Idealerweise könnte das ein nationales Gesetz bewirken, wie z.B. ein Wassergesetz. Durch ein solches Gesetz könnte das WEK-Konzept legal hochrangig verankert werden, und das WEK bekäme die notwendige Autorität, um offiziell ankerkannt zu sein, und die ihm zugewiesenen Aufgaben auch zu erfüllen. Es könnte ein eigenes Büro einrichten, und offizielle Budget-Anträge stellen. Allerdings ist diese Option schwer zu realisieren, dafür fehlt seit Jahren die politische Unterstützung.

Eine eher wahrscheinliche Änderung auf der nationalen Ebene, könnte darin bestehen, die derzeitige Direktive und damit das WEK-Konzept zu verändern, was leichter erreichbar ist, als ein neues Wassergesetz zu verabschieden. Ein neues WEK-Konzept müsste dann auf der Provinzebene greifen. Das übergreifende WEK würde insofern aufgelöst, während die provinziellen Komitees dann umgewandelt würden in „kollaborative Provinz-Wassereinzugsgebiets-Partnerschaften“, und auf einen provinziellen Masterplan oder Aktionsplan zur Wassernutzung ausgerichtet wären. Die öffentlichen Einrichtungen in der Provinz müssten sich dann den Entscheidungen der Partnerschaften beugen und den Masterplan anerkennen, wenn sie ihre Projekte und Programme rund um das Wasser planen. Dann könnten auch weitere Aktivitäten geplant und finanziert werden, (wie

Veranstaltungen und Fortbildungen) die sowohl die Mitglieder der Partnerschaft als auch alle ausführenden Personen im Bereich des Departements für Wasserressourcen fördern.

Sollte es auf der nationalen Ebene keine Änderung geben, und das WEK-Konzept in heutiger Fassung fortbestehen, könnte zumindest das Department für Wasser-Ressourcen seine Politik ändern, was die Umsetzung des WEK-Konzepts betrifft. Dann ist es vorrangig, die WEK-Struktur zu vereinfachen, und den Schwerpunkt auf die Provinz- und Sub-Prvinz-Ebene zu verlagern, wo das Wasser-Ressourcen-Management tatsächlich stattfindet. Neben Aus- und Fortbildung und häufigeren und weniger formalen Treffen, sollte das Department seine Durchführungsebene anweisen, die verbliebenen WEKs dabei zu unterstützen, einen Einzugsgebiets-Management-Plan für die Provinz zu entwickeln, der sich auf die Bedürfnisse und Probleme der betreffenden Provinz bezieht. Dieser Plan sollte den öffentlichen Einrichtungen und Körperschaften zur Beachtung und zur freiwilligen Übernahme in deren eigene Pläne zur Verfügung gestellt werden. Eventuell ist dies der einzige Weg, um die Chancen zu erhöhen, dass der Einzugsgebiets-Management-Plan dann wenigsten in einigen Elementen verwirklicht wird, obwohl das WEK-Konzept in dieser dritten Option weiterhin weder Autrität noch öffentliche Anerkennung genießt.

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- The URCMS's official correspondence to Chiang Mai governor (02.09.2008)
- The URCMS's official correspondence to Chiang Mai governor (14.08.2008)
- The URCMS's official correspondence to Lamphun governor (02.09.2008)
- The URCMS's official correspondence to Lamphun governor (15.08.09.2008)
- The URCMS's official correspondence to the BPMC (11.09.2008)
- The OPDC's official correspondence on reward allocation for the 2012 fiscal year (07.11.2013)

Official websites

- www.dwr.go.th (DWR)
- http://region.dwr.go.th/wrro1 (WRO 1)
- www.gwptoolbox.org (the web-based IWRM toolbox)

APPENDIXES

Appendix I

List of Thai ministries

	Ministry	Number of Departments/Offices
1.	Prime Minister's Office	3
2.	Ministry of Defence*	-
3.	Ministry of Finance	10
4.	Ministry of Foreign Affairs	14
5.	Ministry of Tourism and Sports	4
6.	Ministry of Social Development and Human Security	6
7.	Ministry of Agriculture and Cooperatives	16
8.	Ministry of Transport	8
9.	Ministry of Natural Resources and Environment	11
10.	Ministry of Information and Communication Technology	5
11.	Ministry of Energy	6
12.	Ministry of Commerce	8
13.	Ministry of Interior	8
14.	Ministry of Justice	10
15.	Ministry of Labour	6
16.	Ministry of Culture	6
17.	Ministry of Science and Technology	4
18.	Ministry of Education*	-
19.	Ministry of Public Health	10
20.	Ministry of Industry	8

Source: The Reorganization of Ministries, Sub-Ministries and Departments Act of 2002, and its amendments

Note: *The internal structure is regulated by other Acts.

Appendix II

List of river basins in Thailand

	River basin	Number of sub-river basin	Area (km^2)	WRO*
1.	Salawin	17	19,105.94	WRO 1
2.	Mekong	37	57,188.60	WRO 3
3.	Kok	4	7,299.83	WRO 1
4.	Chi	20	49,129.87	WRO 4
5.	Mun	31	71,071.57	WRO 5
6.	Ping	20	34,499.39	WRO 1
7.	Wang	7	10,793.57	WRO 1
8.	Yom	11	23,948.15	WRO 9
9.	Nan	16	34,908.11	WRO 9
10.	Chao Phraya	2	20,266.49	WRO 2
11.	Sakaekrang	4	5,055.88	WRO 2
12.	Pasak	8	15,623.36	WRO 2
13.	Tha Chin	2	13,491.63	WRO 7
14.	Mae Klong	11	30,180.71	WRO 7
15.	Prachinburi	4	9,672.10	WRO 6
16.	Bang Pakong	4	10,700.71	WRO 6
17.	Tonle Sap	3	4,085.93	WRO 6
18.	East Coast Gulf	6	13,093.05	WRO 6
19.	Phetchaburi	3	6,260.17	WRO 7
20.	Prachuapkhiri-khan Coast	5	7,132.81	WRO 7
21.	Peninsula-East Coast	13	26,067.89	WRO 10
22.	Tapi	8	13,561.81	WRO 10
23.	Thale Sap Songkla	3	8,481.28	WRO 8
24.	Pattani	2	3,654.87	WRO 8
25.	Peninsula-West Coast	13	18,775.60	WRO 10

Source: BUREAU OF RESEARCH, DEVELOPMENT AND HYDROLOGY (2009, p.1-1)
Note: *WRO: Water Resources Regional Office, Department of Water Resources

Appendix III

List of sub-river basins in the Ping river basin

	Sub-river basin	Area (km^2)	Responsible unit
1.	Upper Ping	1,904.10	URCMS
2.	Mae Ngad	1,279.77	URCMS
3.	Mae Tang	1,953.90	URCMS
4.	Ping Part 2	1,527.40	URCMS
5.	Mae Rim	567.81	URCMS
6.	Mae Kuang	2,876.70	URCMS
7.	Mae Khan	1,733.04	URCMS
8.	Mae Li	2,079.65	URCMS
9.	Mae Klang	614.98	URCMS
10.	Ping Part 3	3,184.82	URCMS
11.	Upper Mae Chaem	1,963.38	URCMS
12.	Lower Mae Chaem	1,932.50	URCMS
13.	Mae Haad	517.25	URCMS
14.	Mae Teun	3,134.43	URCMS
15.	Ping Part 4	3,013.47	LRCMS
16.	Huay Mae Tor	645.17	LRCMS
17.	Klong Wang Chao	638.84	LRCMS
18.	Klong Mae Raka	880.50	LRCMS
19.	Klong Suan Mark	1,225.27	LRCMS
20.	Lower Ping	2,796.41	LRCMS

Source: BUREAU OF RESEARCH, DEVELOPMENT AND HYDROLOGY (2009, p.1-33)
Note: URCMS: Ping River Basin Coordination and Management Section (WRO 1);
LRCMS: Lower Ping River Basin Coordination and Management Section (WRO 1)

Appendix IV

A. List of interviews

	Interview	Date
The Ping RBC: public sector members		
1.	A representative of the National Park, Wildlife and Plant Conservation Department*	24.09.2010
2.	A representative of the Royal Irrigation Department*	22.09.2010
3.	A representative of the MNRE Permanent Secretary Office*'**	21.09.2010
4.	A representative of the Department of Local Administration*	19.08.2010
5.	A representative of the Department of Agricultural Extension	04.06.2010
6.	A representative of the Land Development Department	02.06.2010
7.	A representative of the Electric Generating Authority of Thailand	26.04.2010
The Ping RBC: non-public sector members		
8.	A representative of LGOs from Kampaengphet	18.05.2010
9.	A representative of water user organizations (agriculture) from Kampaengphet	16.05.2010
10.	A representative of water user organizations (agriculture) from Chiang Mai	06.05.2010
11.	A representative of water user organizations (agriculture) from Lamphun	06.05.2010
12.	A representative of water user organizations (agriculture) from Tak	23.04.2010
13.	A representative of water user organizations (industry) from Chiang Mai	31.08.2010
14.	A representative of water user organizations (industry) from Tak	24.04.2010
15.	A representative of water user organizations (commerce, service, and tourism) from Kampaengphet	17.05.2010
16.	An expert from Kampaengphet	14.05.2010
17.	An expert from Tak	03.05.2010
18.	An expert from Lamphun	17.03.2010
The Ping River Basin Sub-Committees: non-public sector members		
1.	A representative of the civil society from Chiang Mai	16.03.2010
2.	A representative of the civil society from Chiang Mai	12.03.2010
3.	A representative of the civil society from Lamphun	30.03.2010
4.	A representative of the civil society from Lamphun	24.03.2010
5.	A representative of the civil society from Tak	24.04.2010
6.	A representative of the civil society from Tak	25.04.2010
7.	A representative of the civil society from Kampaengphet	16.05.2010
8.	A representative of the civil society from Kampaengphet	17.05.2010
9.	A representative of the civil society from Nakornsawan	01.05.2010
10.	A representative of the civil society from Nakornsawan	01.05.2010

A. List of interviews (continued)

	Interview	Date
URCM officers		
1.	A plan and policy analyst (Senior professional level)	22.09.2009
2.	A plan and policy analyst (Professional level)	16.11. 2009
3.	A plan and policy analyst (Professional level)	13.08. 2009
4.	A plan and policy analyst (Professional level)	07.08. 2009
5.	A civil work technician (Experienced level)	17.08. 2009
6.	A civil work technician (Experienced level)	11.08. 2009
Leaders of the Mae Tang Water User Association (MWUA)		
1.	Chairman of MWUA and IWUG Zone 7	10.08/11.08.2009
2.	Vice-Chairman of MWUA, and chairman of IWUG Zone 3-5	29.09.2009
3.	Vice-Chairman of MWUA, and chairman of IWUG Zone 1	18.08.2009
4.	Vice-Chairman of MWUA, and chairman of IWUG Zone 8	17.08.2009
5.	Vice-Chairman of MWUA, and chairman of IWUG Zone 11	14.08.2009
6.	Chairman of IWUG Zone 9	09.09.2009
Leaders of the *muang fai* groups		
1.	Chairman of Na Huek *muang fai* group	27.02.2009
2.	Chairman of Ton Shang *muang fai* group	19.02.2009
3.	Chairman of Ton Muang *muang fai* group	17.02.2009
4.	Chairman of Mae Lor *muang fai* group	16.02.2009
Mayors and staff of TAOs		
1.	Mayor of the San Payang TAO	30.06.2009
2.	Mayor of the Sop Perng TAO	23.06.2009
3.	Mayor of the San Pong TAO	18.06.2009
4.	Mayor of the Houy Sai TAO	12.06.2009
5.	Mayor of the Sa Loung TAO	04.06.2009
6.	Mayor of the Khee Lek TAO	25.05.2009
7.	An agricultural officer, the San Pong TAO	02.06.2009
8.	An agricultural officer, the Khee Lek TAO	28.05.2009
9.	An agricultural officer, the Sa Loung TAO	26.05.2009
10.	An agricultural officer, the Sop Perng TAO	18.05.2009

Note: * Also appointed as a public sector member of the Ping River Basin Sub-Committee

** Also appointed as a member and secretary of the Lamphun Provincial River Basin Working Group

B. List of interview topics

1. Main interview topics: Members of the Ping RBC and River Basin Sub-Basin Committee for River Basin Management and Information

- Background information
- Process for becoming members of the RBC/ river basin sub-committee
- Tasks of the RBC/ river basin sub-committee
- Activities of the RBC/ river basin sub-committee
- Communication and interaction with the RBC secretariat, and other members of the river basin governing bodies
- Outlook of the RBC framework

2. Main interview topics: Officers of the Upper Ping River Basin Coordination and Management Section (URCMS)

- Background information
- Responsibilities of the URCMS
- Activities relating to RBC framework implementation
- Communication and interaction with other organizations, and the river basin governing bodies
- Outlook of the RBC framework

3. Main interview topics: Leaders of the Mae Tang Water User Association

- Background information on the irrigation water user group (IWUG)
- IWUG management (e.g. structure and regulations)
- IWUG activities
- Water allocation
- Roles of the Mae Tang Irrigation Project regarding the IWUG
- The Mae Tang Water User Association (e.g. establishment, management structure, and roles)

4. Main interview topics: Leaders of the *munag fai* groups

- Background information on the a *muang fai* group
- Group management (e.g. structure and regulations)
- Group activities
- Water allocation

5. Main interview topics: Mayors and staff of Sub-district (*tambon*) Administrative Organizations (TAOs)

- Agricultural activities and water sources in the area
- TAO policies on agriculture
- TAO roles regarding water resources for agriculture

Appendix V

List of the Ping RBC framework meetings observed

	Activity	Date
1.	A meeting to select and nominate non-public sector members for the Ping RBC	10.09.2008
2.	The Ping RBC meeting	31.08.2010
3.	The Ping RBC meeting	05.03.2010
4.	The Ping RBC meeting	19.08.2009
5.	The Ping RBC meeting	06.02.2009
6.	The Ping River Basin Sub-Committee meeting	24.08.2010
7.	The Ping River Basin Sub-Committee meeting	18.02.2010
8.	The Ping River Basin Sub-Committee meeting	15.09.2009
9.	The Chiang Mai River Basin Working Group meeting	18.08.2010
10.	The Chiang Mai River Basin Working Group meeting	02.08.2010
11.	The Mae Rim Sub-River Basin Working Group meeting	15.06.2010
12.	The Mae Klang Sub-River Basin Working Group meeting	11.06.2010
13.	The Mae Khan Sub-River Basin Working Group meeting	03.06.2010
14.	A meeting to establish the Mae Khan Sub-River Basin Working Group	14.09.2009
15.	A meeting to establish the Mae Khan Sub-River Basin Working Group	29.07.2009
16.	A meeting to establish the Mae Khan Sub-River Basin Working Group meeting	05.08.2009

AUTHOR'S DECLARATION

I hereby declare that this doctoral thesis is a result of my own work and that no other than the indicated aids have been used for its completion. All quotations and statements that have been used are indicated. I did not accept the assistance from any commercial agency or consulting firm. Furthermore, I assure that the work has not been used, neither completely nor in parts, for achieving any other academic degree.

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