



CHAPTER II

WHY COOPERATE OVER TRANSBOUNDARY WATERS?: A THEORETICAL ASSUMPTION

2.1 Water and Conflict

The common nature of river sources creates problems of overuse either because of the prisoner's dilemma where all parties assume that the others will try to do the best for themselves without regard to common or shared goals, or through the tragedy of the commons, when individual actions are small relative to the total volume of resources and therefore an encouragement of free riding (Hardin, 1968; Ostrom, 1990; Ostrom, 2004). The tragedy of the commons is particularly important in the case of international rivers where the hydrology of a river basin links riparian states into a complex web of environmental, economic, political and security asymmetric interdependencies where states (and people) are affected by the activities and behaviors of other riparian states (Elhance, 2003; Conca, 2006). These linkages can promote conflict (elevating suspicion and uncertainty by restricting information from the public domain and proceeding with development projects unilaterally) or cooperation (most likely regime formation through data sharing and rule formation) based on how states fulfill their national interests vis-à-vis water use and their relations with other states (Turton, 2003).

2.1.1 Hydropolitical Complex Theory

Hydropolitical Security Complex theory describes the process whereby water is linked as a security threat in regards to what a state deems as its national interest. For realists, national interest is centered on concepts of state power and self-help in the midst of an anarchic international system. National interests are broadly defined and are shaped by a combination of domestic and international forces, and, thus, can shift according to

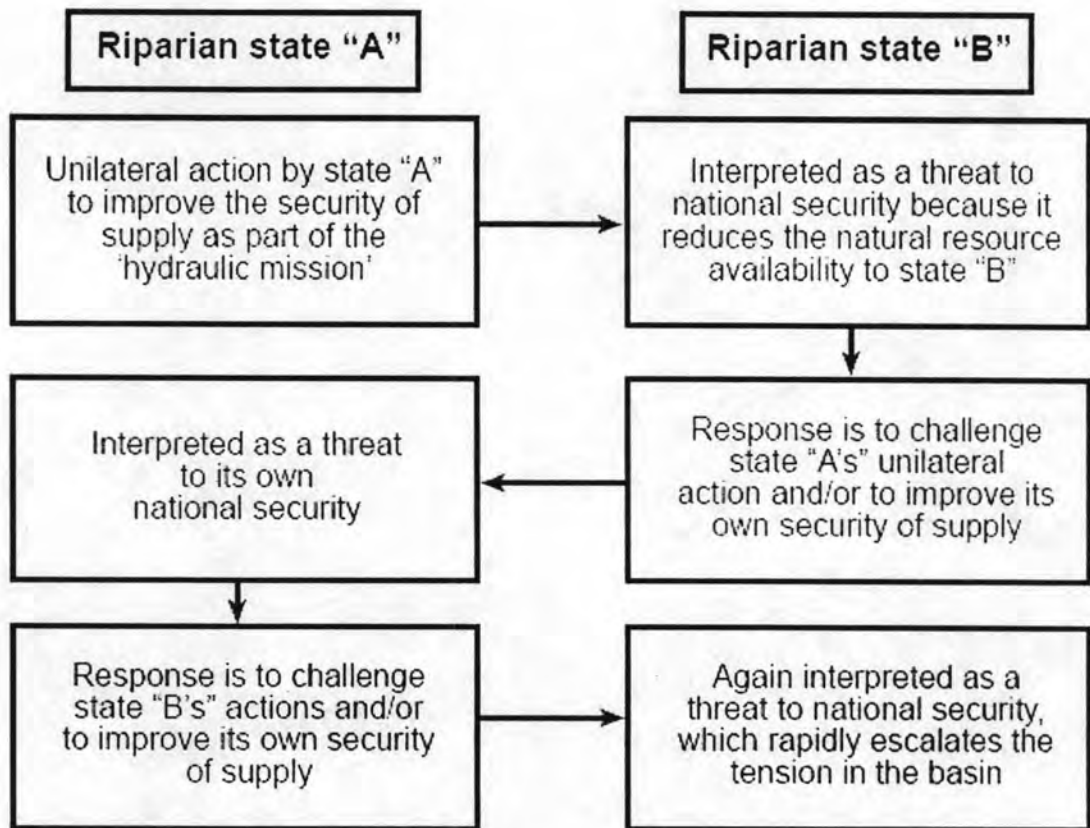
changes within the internal and external environment. Central to a state's national interest is the concept of national security. Broadly stated, national security can be conceived as an act or an event that threatens to degrade the life of the inhabitants of a particular territory, or limits the ability of a state to pursue what it deems as its interests (Ullman, 1983, p. 133). Water is a strategic resource as it is crucial for not only economic security, but maintaining stability by sustaining human health and livelihoods, preventing famine, and reducing social unrest. When demand for freshwater resources is shared by other 'interests' – for instance, economic, political, environmental – conflict can occur. Therefore, threats to the water supply can be considered a national security threat, broadly conceived.

Power asymmetries, as derived from a state's economic, technological, political, and geographic capacity, can cause conflict within a hydropolitical security complex as some states use their power to use water resources vis-à-vis their neighbors (Holsti, 1995; Zeitoun, 2005). In such an environment, states mobilize water resources and improve their security of supply by way of infrastructure development, like dams or interbasin water transfers, in order to sustain economic and social stability, and increase their power relative to the other riparians. This is referred to as the state's hydraulic mission. Unilateral securing of shared water resources is considered a securitizing event (Turton, 2003; Phillips, 2006). Self-interest often prevails as states attempt to maximize their own gains, assuming that other actors will do the same. This creates insecurity for other states as they do not want the other to gain a stronger position vis-à-vis the shared natural resources (Dinar, 2002). As one state moves to secure its water supply unilaterally, and does so in a non-transparent way, it creates uncertainty for other riparian states as they perceive their ability to mobilize resources for their own social development and economic growth to be threatened. States function within an environment where information is rarely complete, and decision-makers enter with different realities of the world. Choices are based on perceptions that are influenced by a multitude of internal

and external factors. Second order securitization arises as a result of a perceived threat. (See Figure 1)

Securitization, therefore, may include the act of securing shared resources for unilateral use, which may or not be derived from a malicious intent, as well as the subsequent second-order response. Securitization is a process where transboundary waters become critical to a state's security, broadly conceived, and where the allocation and utilization of the river's resources are elevated to a higher level of focus (Turton, 2003; Phillips et al, 2006). Key to this is the notion of a perceived threat to national security, which may or may not translate into an actual threat. An act is securitized when a securitizing actor, "either an affected riparian state with a strategic interest in a given international river basin, or a lead actor that is not a riparian state" elevates an issue, or the "perception of economic and social stability by the political elite of a specific riparian state with a strategic interest in a given international river basin" in order to mobilize resources towards securing those interests, usually through political or military means (Turton, 2003, p. 29).

Figure 1: Escalation pattern of hydropolitical tensions based on zero-sum dynamics.



Note. From *Transboundary Rivers, Sovereignty and Development: Hydropolitical Drivers in the Okavango River Basin*, by A. Turton, 2003, Pretoria: African Water Issues Research Unit. Copyright 2003 by the African Water Issues Research Unit.

River basins create hydrologic interdependencies that force states to negotiate their interests and national security within a regional context, which can lead to conflict (Elhance, 1999). A security complex describes this and is "a set of units whose processes of securitization, desecuritization, or both, are so interlinked that their security problems cannot reasonably be analyzed or resolved apart from one another" (Buzan, 1998, p. 201). A hydropolitical security complex emerges when "those states that are geographically part 'owners' and technical 'users' of rivers consider the river a major national security issue" (Schulz, 1995, p. 97).

The danger of water conflict has become a prominent issue in the political and academic discourse, helping to expand the notion of state security to also include elements of environmental security. Yoffe (1999) says that an “analysis of current economic and environmental trends reveals increasing competition over access to and use of freshwater resources at the same time that population growth, economic development, and potential climate change are adding stress to those resources” (Yoffe, 1999, p. 109). Water conflict theorists suggest that aridity, population growth, migration, development projects, and international shared river sources can lead to conflict over water (Mathews, 1989; Gleick, 1992; Kaplan, 1994; Swain, 1997). Indeed, the connection between water and insecurity has been well established throughout history, especially within the Middle East. However, these perspectives focus heavily on outright conflict, which ignores lower level tension or conflict, which can be equally damaging. A lack of cooperation over shared resources can lead to sub-optimal management that may lead to conflict, but more importantly, may have harmful effects on development as well as the environment (Phillips et al. 2006).

For the Mekong Basin states, the Mekong River plays an increasingly important role within the economic security for most of the six riparian states. For Cambodia, maintaining the ecological flow is paramount in order to sustain the livelihoods of its mostly poor population that rely on fish for their protein intake. Vietnam also relies on the Mekong’s flood pulse to sustain its agriculture in the delta. Diminishing water supplies would present security risks for Thailand and Laos as water is reduced for hydropower development and irrigation, respectively. For China, hydropower development of the Lancang-Mekong is crucial in order to supply energy for China’s eastern provinces. Restricted access to the Mekong’s resources, either through decreased water volume or disruption of the Mekong’s regime flow from hydropower dams or channel clearing, for instance, would impact each state’s ability to use those resources and in different ways. The Mekong River Basin has been relatively undeveloped; however, increased interest in developing the river’s resources may lead to scenarios of

securitization. As these resources become more important and integrated into a state's larger economic agenda, issues of security – broadly defined – become more relevant.

2.2 Cooperation over Shared Resources

As reflected in Figure 1, the securitization of water can lead to an endless spiral of tension and possible conflict. Conflict over water is not an ideal outcome, especially as water plays a key role in nearly every function of life from basic health to irrigation and food production, generating energy through hydropower development, and sustaining diverse ecosystems. Conflict has the potential of reducing the possible gains sought by undertaking activities unilaterally. A more positive outcome is to move from conditions of enmity and competing national agendas, to a basin where national agendas converge over a shared cooperative agenda (Turton, 2003; Sadoff & Grey, 2005). For realists, states cooperate according to perceived tradeoffs and benefits. Cooperation will not occur if perceived costs outweigh potential benefits, which could include economic, social, environmental, and political arenas.

Wolf (2003) and Dinar (2002) contend that, in matters of transboundary resource use, states often see mutual benefits in cooperating, and voluntarily subject themselves to common rules of the game. This is most often represented in institutional arrangements, or “a set of rules, decision-making procedures, and programs that define social practices, assign roles to participants in these practices, and guide interactions among occupants of those roles” (Young, 2002). Regimes are a specific type of institution and are a set of implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations (Krasner, 1983, p. 2). Water regimes emerge when a group of states agree to regularize interactions by agreeing to common ‘rules of the game’ establishing rights and responsibilities for each actor in terms of water use (Keohane 1983. pp.146-147). Regimes reduce uncertainty by creating an avenue for information exchange, which is essential for

creating transparency in actions and establishing trust and stability in human exchange in order to avoid scenarios of securitization and zero-sum outcomes (Turton, 2003, p. 96).

Early attempts to codify common rules on sharing water resources originate with the Harmon Doctrine of 1894 – now obsolete – which says that “a state may do as it pleases with the water in its territory without any legal responsibility for the injury it may inflict on states sharing such a basin” (Akweenda in Turton & Roland, 2002, p. 97). This approach has been replaced by concepts of equitable utilization. Modern international law requires that a “riparian state refrain from altering, diverting or stopping the flow of a river traversing its territory to the detriment of co-basin states, or from using water in such a manner that it either prevents a co-basin state from enjoying the use of the river in its territory, or causing it any damage or danger” (Akweenda quoting Oppenheim in Turton, Roland, 2002, p. 97). The United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (1997) requires riparian states sharing a water source to communicate and cooperate, and exchange relevant data and information, as well as notify riparian states of the possibility of adverse effects of development projects, protection of eco-systems, and notification of emergency situations. The rules, principles, and obligations must be operationalized by the specific regimes and according to basin-specific issues. However, it is widely accepted that, in order to maximize benefits and attain optimal utilization, management of shared resources must be basin-wide and should address the multiple uses of the water (Phillips et al, 2006 quoting Kliot et al., 2001, p. 252; Swain, 2004, p. 172). This is reflected in the Integrated Water Resource Management approach, now embraced by the Mekong River Commission, which emphasizes the integrated management of basin resources (Global Water Partnership; Sadoff & Grey, 2005, p. 2). Interestingly, China has recently included an IWRM approach to its revised national water law. Regimes, in the form of river basin authorities or organizations, have been promoted as the optimal solution to govern watercourses.

Basin-wide management generates benefits in that cooperation allows states to pursue common agendas, and exploit new areas previously blocked due to enmity and suspicion (See figure 2). These agendas can expand to new areas as trust is established. However, not all states see cooperation as beneficial, and prefer to 'free-ride' rather than become entangled in regimes. The topic of mutual benefits has emerged as a new field of study within the water conflict-cooperation discourse. Some have attempted to operationalize variables that promote mutual benefits for cooperation (Savenije & van der Zagg, 2002). Sadoff and Grey (2005) offer a simplistic, yet useful, framework for analyzing cooperation, suggesting that states cooperate when there are incentives to do so. They identify four types of potential benefits that can be achieved from cooperation: 1) benefits to the river, as cooperation enables better management of diverse ecosystems; 2) benefits from increased food and energy production, as efficient management of the river increases the river's productive capacity; 3) benefits from reduced tension, as tension creates transaction costs; 4) benefits generated beyond the river as cooperation extends to non-water sector related areas, like economic integration, improved diplomatic relations, and social equity (Sadoff & Grey, 2005, p. 2).

Table 1: Possible gains derived from cooperation.

Type	The Challenge	The Opportunities
Type 1 Increasing Benefits <i>To the River</i>	Degraded water quality, watersheds, wetlands, & biodiversity	Improved water quality, riverflow characteristics, soil conservation, biodiversity and overall sustainability
Type 2 Increasing Benefits <i>From the River</i>	Increasing demands for water, sub-optimal water resources management & development	Improved water resources management for hydropower & agricultural production, flood-drought management, navigation, environmental conservation, water quality & recreation
Type 3 Reducing Costs <i>Because of the River</i>	Tense regional relations & political economy impacts	Policy shift to cooperation & development, away from dispute/conflict; from food (& energy) self-sufficiency to food (& energy) security; reduced dispute/conflict risk & military expenditure
Type 4 Increasing Benefits <i>Beyond the River</i>	Regional fragmentation	Integration of regional infrastructure, markets & trade

Note. From “Cooperation on International Rivers: A Continuum for Securing and Sharing Benefits” by C. Sadoff & D. Grey, 2005, *Water International*, 30 (4), p. 4. Copyright by the International Water Resources Association

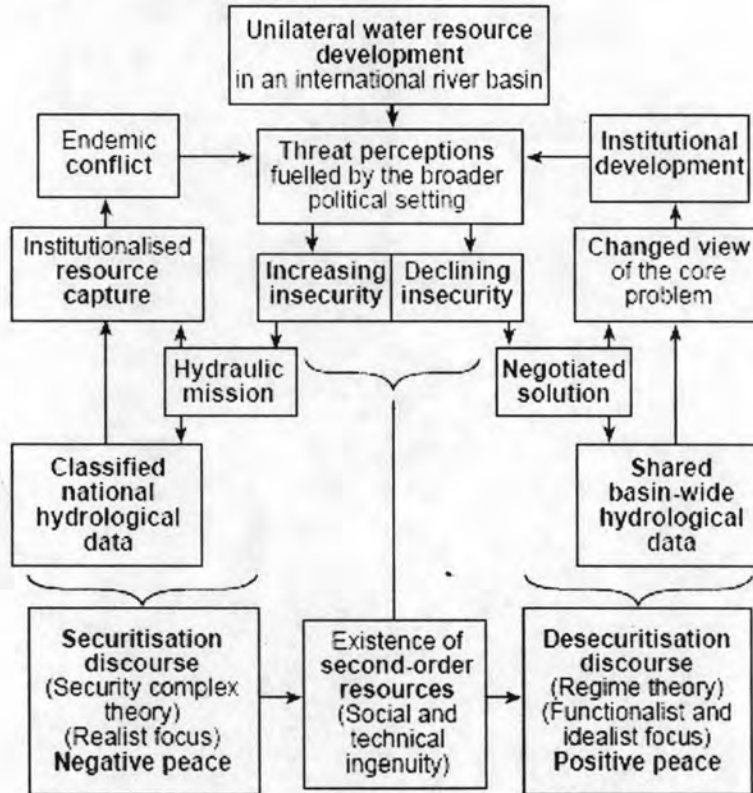
2.2.1 Forms of cooperation

Following Sadoff and Grey, cooperation extends on a continuum from unilateral development with no cooperation over the management of shared resources, to coordination (information exchange over national plans), to collaboration (adapting national plans to include basin-wide agenda), and joint action (collective management or investment of the river’s resources) (Sadoff & Grey, 2005, p. 5). Unilateral development is the least optimal for all riparian states as externalities are created for both upstream and downstream users. Upstream activity generates externalities downstream in terms of diminishing water supplies, while externalities are created for upstream users in the way of “diminishing future flows available for abstraction upstream, by virtue of perceptions of acquired rights to that water downstream” (Sadoff & Grey, 2005, p. 5). Essentially,

unilateral activities raise awareness from downstream users of their rights to supply, which creates tension for upstream users to continue their unilateral development plans without also addressing downstream concerns, and the political and economic risks associated with increased conflict in the basin (Sadoff & Grey, 2005, p. 5).

At the core of cooperation is the exchange of hydrological information and other data. Turton says this is crucial to reducing the potential of conflict associated with unilateral action (Turton, 2003, p. 96). Accurate and uncontested information is needed to foster agreement regarding the common direction for the river and to establish common rules and allocative procedures defining rights and responsibilities in regards to the utilization of the water resources. Information exchange helps move cooperation forward to the integrated management of water resources of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP, 2000). This is crucial in terms of river basin management, as better information flow and a clearer understanding of each state's role within a basin management structure creates predictability and allows for the optimal planning, development, and management of the river's resources (See Figure 2). Information exchange also has the practical benefit of improving flood forecasting and predicting the potential social, economic, and environmental impacts of development projects. Information, therefore, serves as a crucial component of the desecuritization process.

Figure 2: Probable outcomes of desecuritization and securitization within transboundary water management structure.



Note. From *Transboundary Rivers, Sovereignty and Development: Hydropolitical Drivers in the Okavango River Basin*, by A. Turton, 2003, Pretoria: African Water Issues Research Unit. Copyright 2003 by the African Water Issues Research Unit.

2.3 Conclusion

Water has the capacity to create avenues for cooperation and conflict within a transboundary setting. Within the Mekong Basin, the lower Mekong states cooperate according to rights and responsibilities specified under the Mekong Agreement. China serves as a 'free-rider' in this context as it has opted to remain outside the Mekong Agreement framework. As suggested by the hydropolitical security complex theory, inequitable use or access to shared water resources has the potential to create conflict if states feel constrained in their ability to realize their national agendas due to unilateral

action. For the Mekong Basin, the predominant security risk would arise from a depreciation of economic security and reduction of subsistence livelihoods from diminished water quantity or quality. As development pressures like rapid economic and population growth increase, issues of how states negotiate conflict and cooperation will become more important. Cooperation over shared resources optimizes the use of the basin resources and can lead to an increase in overall benefits as transaction costs associated with tension are reduced. Taken together, concepts of securitization and desecuritization, as well as the notion of benefits to cooperation, provide a useful framework for approaching cooperation between the MRC and China. The particular forms of cooperation, as well as costs and benefits derived from it, differ according to the particular domestic and regional economic, political, social, and environmental situation. The different manifestations of cooperation within the Mekong River Basin have placed emphasis on various aspects of Sadoff and Grey's (2005) four types of benefits, as well as conflict and cooperation. The succeeding chapters use these concepts to provide a background to the various incarnations of Mekong cooperation and the possibilities for further cooperation between China and the MRC.