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China's Continuous Dam-building on the Mekong River

Sebastian Biba ^a

^a College of Social Sciences, National Chengchi University, Taipei, Taiwan

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China's Continuous Dam-building on the Mekong River

SEBASTIAN BIBA

College of Social Sciences, National Chengchi University, Taipei, Taiwan

ABSTRACT This article analyses China's hydro-politics along the Mekong River. It seeks to explain why China's unilateral dam-building projects on the upper reaches of the river have not been met with sustained criticism on the part of the downstream riparian countries, for which upstream dams are likely to have severe negative consequences. It is held that China has embarked on a strategy of implicit and broadly conceived actor-reversed issue linkage as a means to nip any loud disapproval of its dams in the bud. By downplaying its dam-building projects and instead promoting common development goals with the Mekong riparian countries through highly increased political and economic engagement, Beijing has successfully defused any potential counter-measures against its dams, at least for the time being. The sustainability of this strategy and its transferability to others of China's trans-boundary rivers must be questioned.

KEY WORDS: Actor-reversed issue linkage, hydro-politics, dam-building, Mekong River, Rambo games

While the foreign policy of the People's Republic of China (hereinafter China) has received considerable attention in the academic literature, one significant issue that has received too little attention is the country's hydro-politics. At its simplest, hydro-politics or water politics can be defined as politics affected by the availability of freshwater. As Elhance (1999: 3) expresses it, "[h]ydropolitics is the systematic study of conflict and co-operation between states over water resources that transcend international borders."

Such politics are critical for China. After all, China is a part of 19 international river basins, most of which constitute vital lifelines for its neighbours (Nickum, 2008: 227). Moreover, it has been reported that Beijing has moved to tighten its grip on some of these trans-border waters (see Yardley, 2004). With its geographically advantageous position of usually being the most upstream riparian state, China also was one of only three countries (with Turkey and Burundi) to vote against the Convention of the Law of Non-Navigational Uses of International Watercourses ("Watercourse Convention") when it was adopted in 1997 by the United Nations General Assembly.

Correspondence Address: Sebastian Biba, College of Social Sciences, National Chengchi University, General Building of Colleges, 12th Floor, North Wing, No.64 (Sec.2) ZhiNan Road, Wenshan District, Taipei 11605, Taiwan. Email: sebastian.biba@gmail.com

Bearing in mind that freshwater availability has dwindled in parts of Asia, and particularly China, as well as highlighting the salient fact that "[w]ater is the only scarce resource for which there is no substitute, over which there is poorly developed international law, and the need for which is overwhelming, constant and immediate" (Wolf, 1997: 334), it is both useful and necessary to provide more insight into China's record on and approach to its international rivers. This article intends to do so by dissecting the situation along one of the most well-known of China's transnational rivers, the Mekong River Basin or, as known in China, the Lancang River.

The Mekong is the most important watercourse in mainland Southeast Asia and is among the world's largest and longest rivers. Apart from China, the most upstream country, there are five other riparian states, namely Burma, Laos, Thailand, Cambodia, and Vietnam (ordered according to the flow of the Mekong; Figure 1). In the mid-1980s, China unilaterally launched a project to generate hydropower and, therefore, began to build eight consecutive dams along the upper reaches of the river; to date, four have been completed. Although dam-building is likely to result in diverse adverse effects on downstream countries, so far China has not been confronted with any sustained and serious criticism from its downstream neighbours. While Burma's role has been negligible, the other four states (Laos, Thailand, Cambodia, and Vietnam; hereinafter the Downstream Riparian

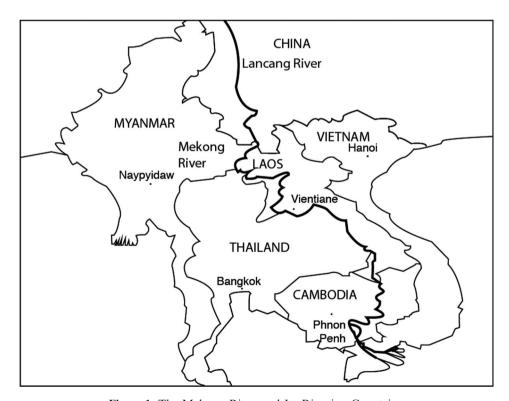


Figure 1. The Mekong River and Its Riparian Countries.

Countries, DRCs¹) brought the Mekong River Commission (MRC) into being in order to jointly manage the river and its resources. However, they have largely failed to bring China to the negotiation table and apparently even lack the will to challenge China on its dam-building. This article examines why the DRCs have taken this relatively unassertive stance.

Drawing on a game theoretical framework, the article holds that the DRCs have not made any serious efforts to change China's behaviour in large measure because China has embarked on a counter-strategy that is described as "actor-reversed issue linkage." This means that contrary to the "normal" form of linkage politics, where the aggrieved actor would engage in forms of issue linkage to gain additional leverage, in this case, China as the beneficiary, has sought to implicitly tie its hydropower projects to broader issues of common development. Thus, China's dambuilding coincides with China's soaring trade, increased investment, and aid programmes in the DRCs. In parallel, under the umbrella of a multilateral forum known as the Greater Mekong Sub-region (GMS), China has begun to exercise so much economic and political influence over the DRCs that with their present preference for an "economy first" approach they are no longer able and willing to make use of the few options that are theoretically available to them to press for China's co-operation.

The article will proceed as follows: first, the relevant theoretical features of linkage politics, including the new term of "actor-reversed issue linkage," will be introduced. Then the next two sections will provide background information regarding China's motivations for its Mekong River dam-building and the potential implications, particularly for the DRCs. This is followed by sections that outline DRC options in dealing with China over its dams, looking at it first from a general and then a case-specific angle. This is followed by the core section of the article in which China's counter-strategy of actor-reversed issue linkage will be dissected in depth. Finally, the article examines sustainability and considers the transferability of this approach.

Linkage Politics

Linkage between not necessarily related issues in order to enhance leverage in negotiation is an ancient and prominent aspect of diplomacy (see Sebenius, 1983). According to Wallace (1976: 164), the Delian League – an association of Greek city states founded in the fifth century BC – may be regarded as an early example of linking Athens' naval protection of other city states to their payment of tribute, which in turn enabled it to sustain a navy powerful enough to protect its own export trade as well as the territories of its allies. In trans-boundary river management, linkage politics have also been common. The Transboundary Freshwater Dispute Database, for example, shows that 43% of river treaties include linkages with nonwater issues (Fischhendler et al. 2004: 634).

McGinnis (1986: 149) has demonstrated most clearly that two general types of linkage can be differentiated, according to whether the linkage results from inevitable reality or from deliberate policy decisions. In the prevailing case, the second alternative, which is similar to Haas' (1980: 371-2) "tactical linkage," is more important. The general rationale behind such a linkage is the attempt of individual

countries or groups of countries to extend their power in one particular issue area into other areas to achieve maximum benefits from their whole array of international interactions (Tollison and Willet, 1979: 425). Linkage tactics can generally be pursued explicitly (that is, linkage is directly communicated to the counter-party) or implicitly (the linkage is not directly communicated), with the former being more difficult to achieve and to sustain as it straightforwardly reveals intentions (Wallace, 1976: 178; Wiegand, 2009: 174).

The literature on linkage politics has produced some fundamental findings as to when linkage is possible and more or less likely to be successful. Accordingly, a necessary condition for issue linkage is that the actors have divergent priorities across the issues at hand (Morgan, 1990: 318). By implication, linkage is not required, or even achievable, if each actor always behaves in a manner that the other actors would find preferential. In such a case, there is no conflict and each actor benefits from the other's actions (Stein, 1980: 63). If the necessary pre-condition is given, however, potentially successful linkage attempts additionally require that an issue be found that is of greater salience than the initial issue for one party and of lesser importance for the other. The absence of such an issue leads to a failure whereas its existence may entail success (Morgan, 1990: 318). Moreover, it is the distribution of power between unequal actors, such as China and the DRCs, that also plays a role in the success or failure of linkages. More precisely, linkage attempts are more likely to work in situations where the relative significance of issues is such that the stronger party is more concerned with the additional issue while the initial issue is more relevant for the weaker party (Morgan, 1990: 326).

However, as Morgan (1990: 312) has correctly argued, the theory of issue linkage in international relations remains underdeveloped in certain aspects. This must be seen as particularly true in terms of who initiates acts of issue linkage. In this regard, authors have for the most part exclusively identified the aggrieved party as the linker. Stein (1980: 65) may serve as an example of this; he maintained the following:

[A]n actor aggrieved with an equilibrium outcome cannot improve its position simply by changing its own course of action. Therefore, the aggrieved actor must get the other actor to change its course of action, and that is why it turns to issue linkage.

While this assessment is accurate and generally applicable to the vast majority of cases, it is intriguing that a strategy this author terms "actor-reversed issue linkage," which is where linkage is initiated by the already-benefited party, seems virtually non-existent in the literature. After all, it is not beyond imagination that advantaged actors seek to leverage their own linkage possibilities, in the event they have any. They do so as a means to perpetuate their benefited position and simultaneously forestall and avoid potential linkage attempts by those players finding themselves in a disadvantaged position over any initial issue. Such actor-reversed linkages leave the ultimate goal of benefit maximisation as well as the basic principle of divergent priorities on the original issue unchanged. The distribution of power between parties seems to play an even more prominent role. Morgan (1990: 329) has pointed out that "usual" linkages are more frequently initiated by the stronger power. This tendency should become even more pronounced in the case of actor-reversed approaches

because this finding means that stronger actors disadvantaged over any initial issue are far more inclined to press ahead with their own linkage attempts and not let the weaker actor dictate the conditions of another linkage. Primarily because it is generally the stronger actor, that has more resources and a wider set of possible linkages across the whole array of common relations at its disposal.

Later sections of this article will delineate how China as the more powerful actor in the prevailing case has engaged in an actor-reversed linkage strategy to follow through with its dam-building projects along the Mekong River. Before that, the background of China's dam-building and its consequences need to be laid out.

China's Dam-building on the Mekong River

China's economy has been growing in double figures during most years since the onset of its reform period in 1978, leading to surging energy demand. To maintain the growth rates that are vital for the regime legitimacy of the Chinese Communist Party, the leaders in Beijing have had to meet the demand for energy. As China became a net oil-importing country in 1993 and, notwithstanding its huge but low-quality reserves, also a net coal importer for the first time in 2007 (Kahrl and Roland-Holst, 2008: 53), one of the imperatives for the leaders has been the diversification of energy resources.

Since China is said to have "the world's greatest potential for generating electricity from flowing water" (Smil, 1998: 937), the country has increasingly tried to utilise this asset. In 2010, China ranked number one in terms of the world-wide share in hydroelectricity consumption, accounting for 21% and up from 15% in 2007 (British Petroleum, 2008: 40; 2011: 36). China has more than doubled its consumption between 1997 and 2007 so that hydro-electricity presently provides roughly 6% of the country's total electricity (Gleick, 2009: 92). Accordingly, with more than 25,000 large dams, China is the country with the most dams in the world. Although China's rate of dam failure is six times the global average and tens of millions of people have forcibly been relocated while many others have died in several catastrophes since 1949, Beijing none the less keeps pressing ahead with new mega projects (International Rivers, 2010; Liebman, 2005: 294; McCormack, 2001: 24).

One of these projects is the Mekong Dam Cascade. This cascade, when completed before 2025, will comprise eight consecutive dams (two of them large storage dams) that take advantage of a 700 m drop within a 750 km stretch of the river (Table 1). Altogether, these dams will have a maximum installed capacity of over 15,000 MW (annual energy output about 70,000 GWh), roughly equivalent to 80% of China's Three Gorges Dam, the largest dam in the world. Construction of the cascade began in 1986. The first dam became operational in 1993. At present, four dams have been built, one more is under construction, and the remaining three are still in their planning periods (McCartan, 2010; McCormack, 2001: 15-6; Menniken, 2007: 107).

In contrast to other major Chinese rivers, like the Yangtze or the Yellow River, the Mekong is trans-boundary. All actions pursued by China upstream may therefore have direct consequences on other countries as well. Originating from the high Tibetan plateau and running across China's southwestern province of Yunnan for almost half of its length, the river traverses Burma, Laos, Thailand, Cambodia, and Vietnam before emptying into the South China Sea after more than 4,000 km.

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	Elevation (m above sea level)	Storage (10 ⁶ m ³)	Power (Megawatts)	Height (m)	Status
Gongguoqiao	1319	510	710	130	Planned
Xiaowan	1240	150	4200	292	Has begun filling
Manwan	994	9.2	1500	126	Existing
Dachaoshan	899	8.9	1350	110	Existing
Nuozhadu	812	227.4	3500	254	Under construction
Jinghong	602	12.3	1500	118	Existing
Galanba	533	n.a.	150	n.a.	Planned
Mengsong	519	n.a.	600	n.a.	Planned

Table 1. China's Mekong Dam Cascade

The dams listed (top to bottom) run from north to south. n.a., "not available." *Source*: Adopted from McCormack (2001: 16) and Menniken (2007: 107); updated with information from

Mekong River Commission (see http://www.mrcmekong.org/assets/Publications/Mekong-News/Mekong-News-issue091-JanMar.pdf (downloaded 31 December 2009)) and McCartan (2010).

According to official MRC data, only 16% of the river's total flow originates in China (MRC, 2010a). However, this figure understates two points: first, the total flow is measured for the whole delta and ignores the fact that at the Lao capital Vientiane, still around 60% of the Mekong water comes from China; second, during the critical dry season, China's discharge amounts to most of the mainstream of the Mekong in Laos and Thailand, and contributes to almost 45% of the average flow in Cambodia (Goh, 2004: 2-3).

The fact that the water of the Mekong does not "belong" to any single state was acknowledged in 1995 when the Agreement on the Co-operation for the Sustainable Development of the Mekong River Basin, which also established the MRC, was signed. Article One of the agreement states the objective of this grouping as "to cooperate in all fields of sustainable development" and "to optimize the multiple-use and mutual benefits of all riparians" (MRC, 1995). The agreement has been lauded by some observers as "a milestone in international water resources management due to its emphasis on joint development, ecological protection, and a dynamic process of water allocation" (cited in Jacobs, 2002: 360).

Yet, the signatory states have only involved the four DRCs of Laos, Thailand, Cambodia, and Vietnam. The upstream riparian states of Burma and China could not be convinced to accede to the agreement because they failed to see the benefits of joining the MRC. They have only held an observer status since 1996. In 2002, China also signed an agreement on the exchange of hydrological information, including water level data in the flood season from two stations located on its part of the river (MRC, 2010a). Under current circumstances, it seems unlikely that China will enter the MRC as a full member. China does not want to be constrained by an international institution. Rather, the leaders in Beijing are likely to prefer to act unilaterally on dam-building. Reinforcing this, China's dam-building along the upper Mekong also constitutes part of its broader strategy to "develop the West" (Menniken, 2007: 106). In other words, apart from reducing its dependency on fossil fuels and improving both the infrastructure and capacity to feed its economic growth, Beijing seeks to develop its western regions (McCormack, 2001: 14). As a

consequence, China has not only built dams on the river, it has also blasted reefs and rocks outside its territory to clear the way for its trading vessels to reach new markets in Southeast Asia (Perlez, 2005).

Implications of China's Dam-building

Together with its tributaries, the Mekong River is among the world's longest and largest systems in the world and the longest in Southeast Asia. Its basin is home to approximately 65 million people. People and the environment in 97% of the land area of Laos, 86% of Cambodia, and large areas of Thailand and Vietnam meet their water needs from the Mekong basin (Babel and Wahid, 2009: xi). In addition, about 85% of basin inhabitants make their living directly from the river, particularly through fishing and irrigated rice production. Fish are the principal source of protein for the people (Jacobs, 2002: 356).

Dam-building may have both positive and negative impacts. On the positive side, the development of a renewable energy course and the reduction of carbon and sulphur dioxide emissions can be noteworthy. Also, dams can help with flood control in the wet season and an increased downstream water supply for irrigation and navigation during the dry season, thus balancing the flood and drought patterns of the lower Mekong (Freeman, 2009: 458; McCormack, 2001: 16).

Although China has officially stated that its dam-building "will not harm the interests of countries located downstream" (*Xinhua*, 2011), the potential negative consequences for the DRCs are multi-faceted and likely to materialise in ecological, economic and political ways. Beginning with ecological problems, water impoundment represents the first precarious aspect as the construction of large dams might lead to an increased frequency and magnitude of landslides and earthquakes. Also, the filling of large dams is a problem as it may take up to ten years. During this period, water is held back, causing massive falls in water levels during the dry season. Furthermore, the flood and drought control capacity of China's dams is said to be dubious. As the main purpose of (at least some of) these dams is the storage of water to produce electricity, China is likely to withhold water in the dry season to maintain its output, while it is probable that it will release water to protect the dams when huge floods occur. Consequently, the evening-out of floods and droughts mentioned before as positive might well be reversed, resulting in adverse ramifications (Goh, 2004: 3-4).

Next in the line of negative ecological effects is that flow regulation will mean fewer seasonal floods downstream during normal years. Those seasonal floods deposit nutrients and sediments on to the natural flood plains. Their reduction will lead to a decline in soil fertility over wide areas of rice cultivation in the lower Mekong basin. Agriculture and salinity will also be affected by flow regulation. Floods usually provide a natural constraint to salt water intrusion from the sea (Freeman, 2009: 462-3; Goh, 2004: 4-5).

Further, aquatic life adapted to the ecosystem will be seriously endangered by the alteration of the flow regime. If the Mekong's biodiversity declines, this will be accompanied by falling productivity in the wild fisheries. As with soil fertility, this issue also bears a salient economic component since fishing directly affects both the region's food supply and its economic viability. Especially in Cambodia, an intricate

ecological and ancient economic system depends on the ebb and flow of the Tonle Sap that is fed by the Mekong. More than one million people make their living directly from this huge lake. Alternatives for both nutrition and employment are few (Mydans, 2003).

Lastly, there are potential negative implications in the political realm. China's dams on the upper Mekong enable Beijing to control the quantity of water released to the downstream countries. The dams thus represent a potentially powerful tool to exercise influence over the DRCs and pose a possible diplomatic threat, especially in the absence of any formal agreements that bind China to a reasonable international water policy (Goh, 2004: 6).

There are also negative consequences for China. First, sediment inflow to the dams is an unpredictable factor that may make China's cascade not cost-effective as it can cut the generating capacity of the dams by up to 80% within decades (McCormack, 2001: 20-1). Second, and more important, is the image China portrays of itself when unilaterally building dams on a trans-boundary river. Since 2003, Chinese government officials, academics and the press have promoted China's "peaceful rise," later renamed "peaceful development." This approach has been designed, among other things, to reassure smaller states on its periphery that they should not fear that China will be aggressive and hegemonic. One of the key points of this concept is to create "win-win" opportunities with other countries (Liebman, 2005: 283). Yet, the list of impacts of China's dam-building raises doubts about the Chinese leadership's claims. To be fair, it should also be noted that, in comparative terms, China's behaviour as an upstream riparian mirrors that of other powerful upstream states, for example Turkey (Waterbury, 1997: 281). However, China's policy should be assessed against its freely voiced pledge to create "win-win" situations.

Liebman (2005: 292) contends that "almost every multilateral Chinese initiative towards the river involves improving navigability to facilitate trade." As China is the dominant economy, this underlines China's self-serving interests in the Mekong basin. Generating hydro-electricity to alleviate China's domestic oil dependency and developing the western provinces (especially Yunnan, but also Guangxi) is linked to China's trade advantage with neighbouring countries.

In sum, China's dam-building on the upper Mekong entails adverse implications for the DRCs and China. In regard to the former, these impacts bear the potential to strip many of the DRCs' Mekong basin inhabitants of their livelihood. In this context, Goh (2004: 4) argues that the situation on the river may be framed in terms of environmental security. On the one hand, "traditional" national security concerns are affected because environmental factors could contribute to violent inter-state conflicts. On the other hand, the "non-traditional" security field of human security, revolving around the negative consequences of environmental scarcity and degradation on the well-being of communities, plays a role.

China's dam-building along the Mekong thus gives rise to a few important questions. Why have the DRCs not taken any serious measures to prevent China from further dam-building, to get Beijing to the negotiating table and what opportunities are available to do so? Next, as seen from the perspective of the other actors involved: why does China risk damaging its image among the DRCs? The following sections will address these questions, and the analysis will start with the

principal options for downstream countries to make their upstream neighbours cooperate.

Transforming the "Rambo" Game in Upstream-Downstream Constellations

Different problems of trans-boundary river management, such as conflicts over the use of water (as is the case when dams are built) or those over the quality of water (pollution issues), have occurred frequently. While in most cases the political rather than technical issues are the most serious obstacles to co-operation, the legal reference frames, through which the victims of uncooperative behaviour could seek remedy, remain weak at the international level. Solutions, therefore, have generally been found through consensus-orientated negotiations amongst the riparian states (Bernauer, 2002: 1-2).

There are several conditions under which mutually beneficial solutions may be reached. Two of them are of particular interest here: first, riparian countries are better able to fix their problems if they have a common perception of the problem, if win-win situations are created, and if national leadership is dedicated and determined to resolving the problem. Second, whereas the existence of reciprocal interests is most conducive to reaching a compromise, co-operative measures are least likely to materialise if the structure of the problem involves so-called "upstream-downstream" situations. This involves upstream state(s) as one party with a special interest facing the downstream states as counter-party having different concerns (Bernauer, 2002: 3).

In the case of the Mekong, it has been indicated that the existence of a win-win situation is at least questionable and that the DRCs' governments have not shown much resolve to crack the dam-building problem. On the other hand, it is evident that the situation between China and the DRCs is characterised by an upstream-downstream constellation. This represents a highly asymmetrical conflict. The upstream state controls a river's source or upper flow, its quantity and quality of water, placing all the lower-lying riparian states at a disadvantage (Haftendorn, 2000: 62). In addition, upstream countries are unlikely to be convinced of cooperative solutions since they are the ones with the least to gain. Instead, they are more likely to "prefer the familiarity of the *status quo* to the uncertainties of binding cooperation" (Waterbury, 1997: 280). China's upper Mekong dam-building is a good example of one kind of upstream-downstream conflict: China, being the upstream country, is able to reap all of the benefits while, at the same time, exporting the damages (Menniken, 2007: 101).

This leads us to a puzzle: in what circumstances would China (or any other upstream country) depart from its position and reach a fair agreement with the downstream states. In search of a theoretical framework, it makes sense to look into Game Theory (see Haftendorn, 2000). More precisely, for the purpose of this article, it is important to find approaches that, first, help explain China's unilateral approach towards dam-building and, second, point in the direction of how to transform this demeanour into a more co-operative pattern.

Basically, Game Theory shows quite a few different co-operation (or collective action) problems. They range from pure co-operation to non-co-operation and their categories are usually referred to as assurance, co-ordination, collaboration

(dilemma) and suasion (Rambo) games (Hasenclever et al., 1997: 53). The first two categories cannot be applied to the prevailing situation, because all players would have already agreed upon a certain common goal, for example, to stop building dams. In the current case, there is no such common objective. The remaining two models, in contrast, can be utilised and worked with: the Rambo game mirrors the prevailing circumstances. In such a game, one player – here China – pursues a dominant strategy that highlights only its own autonomous interests, irrespective of the potential impacts on others. More importantly, this actor does not rely on cooperation to enforce its interests. Consequently, Rambo games exclude the possibility of co-operative solutions. Instead, the interaction structure between the players makes the advantaged party prefer the maintenance of the status quo as opposed to coming to a compromise with the disadvantaged one (Haftendorn, 2000: 62; Wilhelm, 2006: 58).

To overcome the deadlocked situation in a Rambo game and to reach an agreeable settlement, the disadvantaged player's only possibility is to replace the game with a dilemma situation.⁵ Dilemma games are characterised by circumstances under which, on the one hand, players have incentives to defect from a co-operative framework, but, on the other hand, also fear to be deceived by the other player. While not being the theoretical optimum, the salient distinction of a dilemma game as compared to a Rambo situation is that solutions to a conflict, albeit costly, are no longer precluded, but can principally be achieved. The power of the advantaged player is then balanced or modified (Haftendorn, 2000: 62; Wilhelm, 2006: 58).

In order to spur such modification, the aggrieved player has to engage in some form of action. Bernauer (2000: 174-80) has written about this complex of themes and applied it directly to trans-boundary river management. He has introduced four tools that can be employed to transform different upstream-downstream Rambo situations into more positive dilemma games, thereby making the former Rambo cooperate. The first of these tools is coercion. This is both the most straightforward but empirically also the least likely strategy to resolve deadlocked situations. Coercion is only viable if the aggrieved downstream actor has more power resources than the upstream player and, additionally, is willing to make use of them. Moreover, coercion is likely to result in "collateral damage" (negative impacts on other fields of relations between both players), which neither makes it the best option to choose, nor produces a stable co-operation.

The second tool is compensation. Although this possibility, to some extent, reverses the principle of "the perpetrator pays," it can still be an economically efficient solution for the disadvantaged player to compensate the producer of adverse impacts for their reduction. External financing is a special case of compensation in which (richer) non-riparian actors (countries or organisations) step in to assist downstream countries out of their predicament. This tool has often been used in river development projects in developing countries where the financial resources for compensation are rarely sufficient. At least, in some cases, it has also shown positive effects.

The third alternative is to change the negotiation forums and/or bargaining parties. In this case, the disadvantaged player may carry the issue into forums more favourable to its cause. Normally, these are venues in which the player can solicit the support of other players, be it states or international agencies. Menniken (2007: 113)

indicates that, in cases where the aggrieved actor comprises autonomous sub-units (like the DRCs are made up of autonomous sovereign states), it is imperative for this group to form a strong and cohesive structure or "alliance."

The last option has already been outlined above and is used most frequently to try to solve upstream-downstream conflicts: issue linkage (see Haftendorn, 2000; Menniken, 2007). Again, issue linkage in its usual sense means that the disadvantaged party ties the issue causing the problems to another issue in which it has more bargaining leverage. For example, in the past, downstream riparian states utilised the threat to close their part of the river to ships registered in the upstream country. Also, the imposition of special taxes on upstream ships was used. Besides such river-related linkages, the connection to broader aspects has represented an alternative, for instance threatening that the overall relations between the countries involved will increasingly turn sour, unless the problem is solved (Bernauer, 2000: 177). Wolf (1997: 355) has additionally highlighted that water can also be linked to other energy resources, like oil and gas. It must be borne in mind that the costs incurred by linkages may also be high for the linking actors themselves.

It is always easier to end deadlocked games like upstream-downstream situations if the involved parties are more integrated. In this case, integration is quantified through four categories: if the density of political, economic, and cultural interactions among the parties is high; if the number of players is low; if the homogeneity of their preferences is high; and if the level of their development is high (Bernauer, 2000: 180, 2002: 7). It is now time to turn from principal possibilities to actual proceedings and see whether the DRCs (would) have been able to make use of any of the transformation strategies delineated.

From Rambo to Dilemma Situation: DRC Chances and Record

Judged from the general features that may facilitate the transformation process from a Rambo to a dilemma situation (that is, high levels of integration and development, homogeneity of preferences as well as low number of players), the pre-conditions for that process are not particularly good in the prevailing case. This is because the levels of integration and development are still relatively low, while preferences are rather heterogeneous, and the number of players is comparatively high when counting the DRCs as four autonomous countries.

Coming to the four concrete transformation options, it is first evident that the DRCs have lacked the power to coerce China into co-operation. Measured on a purchasing power parity (PPP) basis, China in 2008 had become a major economic powerhouse. In terms of military expenditure, China in 2006 spent 4.3% of its GDP, while Cambodia, Vietnam, Thailand, and Laos spent only 3.0, 2.5, 1.8, and 0.5%, respectively. In absolute figures, this difference is enormous since China's GDP of roughly US\$8 trillion in 2008 was almost eight times as high as the combined GDP of all four DRCs (CIA, 2010).

Under these circumstances, it is also clear that the DRCs have not been able to financially compensate China to halt further dam-building. This inability is due to the fact that Cambodia and Laos are amongst the world's poorest countries, and China is not in need of money since it is the world's largest holder of foreign

exchange reserves in 2010 (Chinability, 2010). External financing has its own set of problems, too. Even though richer countries (such as Japan, Australia and New Zealand), as well as some international organisations (such as the World Bank and the International Monetary Fund (IMF)), finance diverse projects in the DRCs, this assistance can only alleviate the adverse effects of upstream dam-building. It will not bring China to the negotiating table. In addition, it seems improbable that any of these donors will ever be willing and able to spend very large amounts to finance large-scale projects to increase wind and solar power in China so as to "convince" Beijing to freeze its dam-building schemes in return. Lastly, China, for its part, can afford to finance those mega-projects on its own (Pomeranz, 2009: 36).

Moving on, certain aspects of issue linkage, however, do not look as bleak as the two preceding alternatives. For instance, China's pressing attitude concerning the construction of land transport lines from its southwestern provinces of Yunnan and Guangxi to Thailand via Laos, as well as directly to Vietnam, and reaching the shores of the Gulf of Thailand and the Gulf of Tonkin, might give some DRCs, or the DRCs as a coherent unit, certain leverage over Beijing (Menniken, 2007: 111; Figure 2). This also applies to China's long-held interest in making the Mekong increasingly navigable in order to fulfil Beijing's persistent dream of turning the river into a link to Southeast Asia's export markets and raw materials (New York Times, 2001; Pomeranz, 2009: 33). In 2005, the Thai government put a halt to the Chinese blasting rapids on the Thai section of the river after protests from local fishermen, illustrating the potential trade-offs (Perlez, 2005). It is those courses of action that can convey the message that, if China wants to proceed with its long-term objective to link its southwestern inland provinces to the sea, it will finally have to work together with the DRCs and cannot simply act unilaterally on issues like dambuilding, Moreover, the DRCs could close those parts of the river to Chinese ships that are already navigable and run across their territory, as was suggested earlier by Bernauer (2000). The Gulf of Thailand is an area with potential for large oil and gas reserves that, given China's energy demand, could also provide the DRCs (or Thailand, at least) with some bargaining power (Freeman, 2009: 467).

Another linkage strategy for the DRCs could be to officially set a bigger frame and underscore the potential for region-wide instabilities due to decreased levels of security in the light of dam-building rather than to engage in explicit quid pro quo approaches (such as: if more dams, then no roads or no oil). More precisely, as has been shown above, China's dams and its diverse corollaries may have long-lasting negative effects on environmental, food and human security in the DRCs. Large-scale subsequent population movements and social unrest, which have occurred frequently under those kinds of insecurities (see Homer-Dixon, 1994), could also become detrimental to China's sustained economic growth in a stable environment, which is seen as vital by the Chinese leadership (Lampton, 2008: 168). For the DRCs, this means having another potential weapon that could be used against China's dam-building.

Eventually, leaving issue linkages behind, a shift in the negotiation forum might also have some prospects of success in the current situation. Although China has not entered the MRC and is unlikely to do so in the future, nevertheless other venues could step in and alter the current upstream-downstream conflict between Beijing and the DRCs in a more favourable direction for the latter. One of these forums is

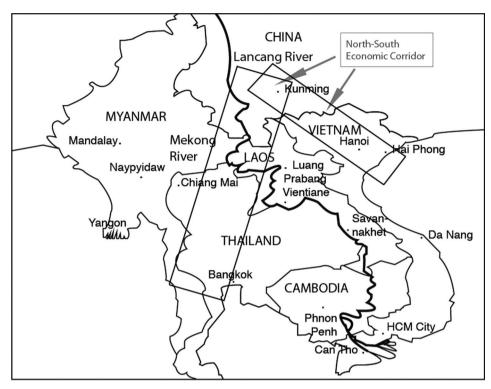


Figure 2. China's North-South Economic Corridors in Mainland Southeast Asia.

the GMS project, a so-called growth triangle that started in 1992 and is driven by the Asian Development Bank. Contrary to the MRC, the GMS comprises all six Mekong riparian states. China even participates at two levels, central government and provincial (with Yunnan and Guangxi). The work of the GMS has centred mainly on the facilitation of economic growth and progress in the standard of living in the Mekong region through greatly expanded trade and investment in power, transport, and communication (Dosch and Hensengerth, 2005: 267). Since China benefits from this liaison, matching Beijing's aim to turn the remote southwestern provinces into a gateway to Southeast Asia, the DRCs as a cohesive unit could attempt to put China's dam-building on the agenda and seek to work towards a solution. Should China be reluctant to do so, the DRCs could perform the way of linkage mentioned above and boycott certain projects.

The other organisation that the DRCs could try to utilise is the Association of Southeast Asian Nations (ASEAN). For one reason, all DRCs are ASEAN member states, and ASEAN founded the Mekong Basin Development Co-operation in 1996 to link Southeast Asia's most important organisation to the GMS. For another reason, ASEAN-China ties have become closer in recent years, with a common free trade area having taken effect in 2010 and being the pinnacle of this evolution. It is clearly in Beijing's interest to foster good relations with its neighbours (see Men, 2007: 251). Consequently, ASEAN, comprising ten member states, should have even

more bargaining power than the GMS to make China's stance towards dam-building more co-operative. Ultimately, as a long-term objective, one could also think of the ASEAN+3 grouping (involving all ASEAN members plus China, Japan, and South Korea) to deal with China's dam-building issue in the future.

It is notable that even though the pre-conditions have been far from ideal and not all options seem viable, the DRCs have some possibilities at their disposal to at least attempt to transform the current upstream-downstream Rambo situation with China into a more co-operative game. The options presented may not be exhaustive, yet they concentrate on issue linkages and shifts in negotiation forums.

Significantly, however, the DRCs thus far have not (seriously) tried to put any of the measures outlined above into practice. A recent example of this was in February 2010 when Mekong water levels sank below those of a 1993 record low, affecting regions in all four DRCs. The availability of drinking water and irrigation for dry season crops was limited, shipping stopped and, in the rice-growing delta in Vietnam, salinity levels rose dramatically (McCartan, 2010; Thanh Nien News, 2010a). Affected citizens, environmentalists and NGOs, particularly in Thailand, considered the Chinese dams at least partly responsible (Fuller, 2010). Initial official statements went into the same direction, with Jeremy Bird, Chief Executive Officer of the MRC, reportedly stating that "[i]t's difficult to say categorically that there is no link [between the low water levels and those dams]" (cited in Osborne, 2010), and then Thai Prime Minister Abhisit Vejjajiva claiming, "we'll ask China to help manage the water flow along the river better so countries in Southeast Asia would not be affected" (cited in McCartan, 2010). Moreover, the MRC agreed to send an official letter of complaint to China, seeking co-operation in finding a solution to the Mekong's low flow (McCartan, 2010).

China's first reaction maintained that low water levels were not related to its dambuilding and, above all, not due to the recently begun filling of the newly finished Xiaowan Dam, but resulted from a severe drought, also hitting some of its own provinces, especially Yunnan (Fuller, 2010). Yet, even though MRC Chief Executive Bird had meanwhile backpedalled and joined China's version of a severe drought (Osborne, 2010), the MRC's pressure led Beijing to offer to share further hydrological data and even entailed a Chinese invitation to DRCs officials to inspect some of the dams (McCartan, 2010; MRC, 2010b). In the end, these announcements, strategically released in the days before and during the MRC Summit Meeting in Thailand in April 2010, meant a summit agreement that was "predictably disappointing," with no commitments to scale back existing Chinese projects or slow down those in the planning stage (Storey, 2010: 8). Indeed, the agreement lauded "the progress made to extend cooperation" between the MRC and China "in the current drought situation" (MRC, 2010c).

This behaviour stands in stark contrast to what other less powerful downstream riparian countries in similar situations have embarked upon at times. Syria may serve as a vivid example in this regard: being a downstream country along the Euphrates and Tigris, it has launched various rounds of different issue linkages, thereby successfully urging Turkey as the most upstream and economically and militarily most powerful riparian state into more co-operation on river management (see Daoudy, 2009). Also, US-Mexican negotiations on the Rio Grande and Colorado basins in the first half of the twentieth century reached a (temporary)

breakthrough when the less powerful and downstream Mexico linked its backing of the foundation of the US-supported United Nations to a more favourable bilateral agreement (see Fischhendler et al., 2004). These two cases, and there may be more, prove that smaller downstream countries have ventured to engage in processes to transform Rambo games into dilemma situations and could thereby also produce (partial) successes. This raises the question why the DRCs have not tried to pursue those tactics. The following section will provide insight into this issue.

China's Strategy: Actor-reversed Issue Linkage

The DRCs' relatively restrained reaction to China's upstream dam-building along the Mekong could have several possible reasons. First, the costs the DRCs would have to shoulder themselves when implementing some form of issue linkage have been considered too high. Second, bilateral issues between the DRCs may at times have hindered them to act as a more cohesive block. Dosch and Hensengerth (2005: 277), for example, refer to unresolved border disputes between Vietnam and Cambodia, Thailand and Laos, as well as between Thailand and Cambodia. The conflict between the latter dyad has flared up again only recently in late April 2011, with skirmishes taking place and soldiers being killed (BBC, 2011b). Third, the DRCs may have partly diverging priorities when it comes to the Mekong's water. Laos is preoccupied with its own hydropower generation objectives (see below), Thailand plans large-scale irrigation expansions and shows interest in importing Laotian and Chinese hydropower (Menniken, 2007: 108), Cambodia is concerned about its Tonle Sap Lake as well as its food security, and Vietnam worries about increasing salinisation levels in the delta, where approximately half of its annual rice production comes from (Goh, 2001: 474-5; Hensengerth, 2009: 328-9). This implies that the DRCs might also have detrimental effects upon each other. Future floods or droughts in Vietnam, for instance, might be caused by deforestation or dams respectively in Laos (and not only China). Fourth, the DRCs may, to some degree, have lacked the awareness about environmental and human security (see Goh, 2004: 13). Finally, the DRCs may have felt that they have generally not been in a position to challenge China. ASEAN's will to engage China in the region may have been stronger than its courage to confront China. It may be stated that ASEAN opted for a free trade area with China, although some implications may be unfavourable for the ASEAN countries (see Wang, 2009). This shows how far these countries are willing to go to integrate a rising China for the time being.

While all these issues may have, to some extent, contributed to the disinclination of the DRCs to take action against China's dam-building, none of them has been decisive. Rather, it is suggested that China has stripped the DRCs of their power of decision in the first place. In other words, the DRCs have been put on the defensive by China having increasingly taken the initiative to nip in the bud any criticism of its hydropower projects. Based on Game Theory and linkage politics, this behaviour could be termed as a strategy of "actor-reversed issue linkage." In pursuing this policy, China has, however, also benefited from the DRCs' prevailing mindset, which still pits "economic development against the demands of social and ecological sustainability" (Goh, 2004: 13), instead of combining them. What exactly has China's strategy included?

First and foremost, it is expedient to understand the idea of China's neighbourhood diplomacy, in which its issue linkage strategy in the prevailing Mekong case is also embedded. This diplomacy is composed of "good relations with the neighbours, peaceful coexistence with the neighbours and common prosperity with neighbours" (Men, 2007: 251), and illustrates the primary concern of Beijing in regard to its external relations. China's purpose is to reassure its neighbours that the former "Middle Kingdom" will rise peacefully and to guarantee conditions under which China can continue its economic growth. Accordingly, when dealing with smaller powers, such as the DRCs, Beijing has frequently sought to frame inter-state relations in the concept of "South-South co-operation," that is to highlight the equality between China and its smaller peripheral countries as well as emphasise common development objectives (MOFA, 2003). In the prevailing case of dambuilding along the Mekong, China's leadership has also aimed at not addressing the dam and water issues in isolation from the bigger picture, namely common economic development for the whole sub-region in order to raise living standards and pave the way for a brighter future (see below).

Transferred into figures, this means that trade and investment volumes between China and the DRCs have been soaring for years. From 1990 to 2007 (before the impacts of the global financial crisis materialised), the combined exports and imports between China and the DRCs increased more than 30-fold, from US\$1.6 billion to 53 billion. Although most of the growth in absolute numbers accounts for Sino-Thai trade and, to a lesser extent, also accounts for Sino-Vietnamese trade, percentage increases have been equally large for all four countries (Table 2). As a result, according to the IMF "Data of Trade Statistics," China in 2009 was the second and third largest world market for exports coming from Vietnam and Thailand. The USA and, in the case of Vietnam, also Japan were still ahead, albeit not very far. In Laos, China was already ahead of its "external" (non-DRC) competitors. On the import side, China also has a key role: it was second only to Thailand in Laos, accounting for 14.3% of Lao imports world-wide. In Thailand, China again ranked second with 12.7%, this time only behind Japan. For Cambodia and Vietnam, China was by far the single most important source of imports, with figures running up to 22.6% and 23.5%, respectively (Table 3). With the pace at which trade volumes have risen over the last two decades, it seems to be only a question of time until China functions as the DRCs' pivotal trading partner.

In terms of foreign direct investment (FDI), the tendency is the same, even though not yet as pronounced. China has begun to make palpable headway, particularly into the less developed DRCs of Laos and Cambodia (and also Burma), leaving non-DRC competitors, such as Japan or Western countries, behind (Lim, 2008: 9; USEC, 2006; USEL, 2006). The total DRC-wide volume of China's FDI has increased more than six-fold from almost US\$93 million to above US\$580 million from 2003 to 2009 (MOFCOM, 2009; Table 4). The sectors in which Chinese investments are flowing concentrate on energy, transport, agribusiness and tourism (Lim, 2008: 9). 10

China has set up a US\$20 million poverty reduction fund at the ADB and unilaterally removed tariffs for more than 200 items from Cambodia and Laos (and Burma). Furthermore, China has provided direct financial assistance to small and medium enterprises in the region and pushed both private and state-owned Chinese

Table 2. China's trade with the DRCs (various years in US\$ million)

				,	•	,		
	1990	1995	2000	2005	2006	2007	2008	2009
Chinese exports								
Cambodia	3010	51,614	164,081	536,109	929,629	881,250	1,095,000	904,984
Laos	14,477	47,766	34,419	105,336	168,717	177,409	268,144	376,280
Thailand	854,427	1,752,280	2,243,410	7,818,550	9,763,300	11,978,600	15,520,700	13,326,200
Vietnam	1683	721,747	1,537,290	5,639,330	7,468,340	11,905,600	15,139,400	16,303,000
Chinese imports								
Cambodia	177	5724	59,491	27,305	35,088	51,082	38,639	36,346
Laos	6436	6449	6422	25,544	49,636	84,991	149,484	336,572
Thailand	385,619	1,610,760	4,380,190	13,993,700	17,961,700	22,652,500	25,636,200	24,845,800
Vietnam	854	332,008	929,100	2,549,350	2,485,900	3,214,420	4,342,520	4,741,070

Source: IMF (2011).

Table 3. China's role in the DRCs' world trade (2009)

	Percentage of overall trade	Rank
DRCs exports to China		
Cambodia	0.3	_
Laos	20.1	2 (behind Thailand)
Thailand	10.6	2 (behind USA)
Vietnam	8.6	3 (behind USA and Japan)
DRCs imports from China		1 /
Cambodia	22.6	1
Laos	14.3	2 (behind Thailand)
Thailand	12.7	2 (behind Japan)
Vietnam	23.5	1

Source: Basic figures from IMF (2011).

Table 4. China's outbound FDI flows to the DRCs (2003-09 in US\$ million)

	2003	2004	2005	2006	2007	2008	2009
Cambodia	21.95	29.52	5.15	9.81	64.45	204.64	215.83
Laos	0.80	3.56	20.58	48.04	154.35	87.00	203.24
Thailand	57.31	23.43	4.77	15.84	76.41	45.47	49.77
Vietnam	12.75	16.85	20.77	43.52	110.88	119.84	112.39

Source: MOFCOM (2009).

companies to enhance their investment in the region. Ultimately, China is reported to have granted "no-strings attached" loans (Lim, 2008: 4).

Finally, China has increased its interaction with the DRCs within a multilateral political framework, underlining its commitment to the region. The GMS, delineated above as a potential vehicle for the DRCs to confront China with its dam-building policy, has in reality become the opposite: a Chinese tool for promoting and steering the country's ties with the DRCs. China hosted the Second GMS Summit in 2005 and has been taking on the benefactor role in this forum (Lim, 2008: i, 4; Zeller, 2008). The forum has also become the primary venue for Chinese officials to outline Beijing's objectives in the sub-region to the DRCs. During a speech at the Third Summit meeting in 2008 in Vientiane, China's Premier Wen Jiabao promoted the idea that regional states should "keep to the path of pursuing common development and prosperity." A list of priority items ranked infrastructure development, transport and trade facilitation, rural development, and health co-operation before ecological and environmental protection, which were only set against the background of climate change. References to China's dam-building projects and declining water levels were conspicuously missing. Instead, the Premier stressed China's "path of peaceful development" and its adherence to a "win-win strategy" (Wen, 2008). Simultaneously with its increasing role in the GMS, China has continuously strengthened its influence in the ADB, itself the catalysing force of the GMS (Perlez, 2005).

As a consequence of China's increased interaction with the sub-region, the DRCs have come to look forward to better trade opportunities, more advanced transportation networks, and growing numbers of tourists. In addition, even though China mainly pursues interests that are primarily beneficial to itself, its engagement is yet deemed as helpful by the DRCs in generating higher income and improving living standards (Lim, 2008: 7). Potentially negative impacts for the DRCs due to China's engagement and its dam-building over the longer run have largely been ignored. Indeed, it is hard to blame poor countries, such as Laos and Cambodia, for utilising China's aid to kick-start their economies and ease their poverty. Similarly, it is reasonable that the relatively richer states of Thailand and Vietnam also see China as an opportunity for continued growth (see Perlez, 2005). Naturally, politicians and senior officials from the DRCs have been reluctant to voice serious concerns about and take concrete action against China's dam-building.

More significantly, the DRCs now seem to have set a new direction where dams are considered to be a "symbol of progress" (Fuller, 2009). Irrational as it might seem, the assumption of China's dams bringing benefits for the DRCs has never been uncommon. Recently, Thailand, Laos and Cambodia, together with the MRC, have all begun to plan damming the Mekong mainstream themselves, weakening any criticism regarding China's dams coming from civic organisations (Freeman, 2009: 463; Figure 3). For China, this ensures the success of its issue linkage strategy for the



Figure 3. Dams on the Mekong Mainstream.

time being and guarantees that its dam-building continues to be met without any loud and official criticism on the part of the DRCs.

Transferability and Viability of China's Linkage Approach

The main objective of this article was to provide insight into China's current policy on its trans-boundary watercourses. The case study of the Mekong River Basin has shown that China, as the most upstream of the riparian countries, has been following unilateral strategies of hydropower generation on the Mekong's upper reaches that bear great potential to damage downstream riparian states in a variety of ways over the long term. For the moment, China seems able to achieve maximum benefits since it has been able to link its dam-building to broader issues of common development, including increased levels of trade, investment and aid as well as an institutionalised diplomacy. In doing so, China has successfully turned the tables and prevented the DRCs from embarking on an issue linkage strategy in order to stop Beijing's dam projects. If the DRCs really launch their own dam-building projects on the Mekong mainstream, this would certainly further weaken their chances to challenge China's dam-building more seriously in the future, should they finally decide to do so.

In theoretical terms, the remarkable thing is that the benefited party has initiated linkage tactics while such strategies have usually been attributed as policy tools of an aggrieved party. Moreover, China's actor-reversed issue linkage has been implicit and very broadly conceived (see Wiegand (2009) for a related argument). Beijing has not engaged in a strict quid pro quo approach, nor has it ever publicly or officially voiced the existence of such linkage politics in this particular dam-building case in the first place. Rather, in a more subtle way, China has sought to embed its dambuilding projects in its overall neighbourhood diplomacy. Chinese leaders have avoided focusing on dam-building as an isolated issue area, but instead tried to wrap it into a far broader perspective emphasising the joint regional goal of common development.

It seems questionable, however, whether China's approach towards the Mekong DRCs will be sustainable or can be repeated along China's other trans-boundary rivers. As noted, China lies in 19 international river basins. Among them are rivers like the Ili and the Irtysh flowing from China into Central Asia as well as the Brahmaputra (in Tibet, Yalung Zangbo), the Indus (Senge Zangbo), the Irrawaddy (Tarong), and the Salween (Nu), all of which meander through South and mainland Southeast Asia after originating in China (see Nakayama, 2005). To meet its eversurging domestic energy and freshwater demands, China is likely to build more large dams along and divert more water from more of its trans-boundary rivers in the years to come. However, China is also likely to face more opposition with regard to its actor-reversed issue linkage approach on the part of downstream countries elsewhere. The primary reasons for this can be seen in less relevance of potential coordination problems among downstream countries (along other rivers, China faces only one or two neighbours), partly smaller power differentials between China and its other downstream neighbours, better linkage opportunities for those neighbours, as well as less overall water availability in China's other adjoining sub-regions.

In early 2010, for instance, Beijing finally admitted after years of denial that it had unilaterally begun constructing dams along the Yalung Zangbo in the Tibetan

Plateau, upsetting India (*Tibetan Review*, 2010). In 2008, Indian Prime Minister Manmohan Singh was reported to have raised concerns about Chinese water diversion plans when he met with Chinese President Hu Jintao in Beijing (Krishnan, 2009). Today, many indications are that India, an awaking giant with a history of conflict and mistrust *vis-à-vis* China, and a country far more powerful and water scarce than the Mekong DRCs, is unlikely to endorse Beijing's "trade/development for water" policy (see *Asia News*, 2010).

Kazakhstan, another downstream country along some of China's trans-boundary rivers and facing severe water shortages, is another case. Contrary to most other riparian countries sharing rivers with China, Kazakhstan has since 2001 been in the relatively fortunate position of having an agreement with China on the establishment of a joint river commission covering the Ili and Irtysh as well as smaller streams. Even though its scope of activities is said to be narrow and discussions of China's water allocation projects have apparently been approached quite cautiously (UNECFE, 2009: 47), the joint commission can be assessed as a step towards more equitable water usage between the two countries. Although more profound analyses certainly have to follow, Kazakhstan seems in a stronger position for successful issue linkages than, for example, the Mekong DRCs. After all, Kazakhstan is rich in oil and gas reserves as well as geographically adjacent and culturally akin to China's Uygur populated "trouble spot" Xinjiang. Additionally, the Shanghai Co-operation Organisation has probably taken on the issue of common and equitable water resources management among its member states in a more serious way than the regional organisations in which the Mekong DRCs are members (see Li, 2009: 30).

Even the Mekong DRCs are unlikely to remain silent forever about China's dam projects. What can already be observed is that popular resentment along the lower Mekong is rising, and so is activist and media assertiveness (Macan-Markar, 2009; 2010; Osborne, 2010). Such trends will at some point put immense pressure on the central governments of the DRCs to do more about China's plans. Moreover, what if severe droughts or floods occur over a few consecutive years and start to affect the DRCs more equally? So far, the DRCs' elites have sometimes lacked cohesion to counter China as a group. However, frequent future crises might help bind the DRCs together more firmly. The spring 2010 Mekong crisis, which saw a more pronounced critique of China, might have been a foretaste of what is yet to come. The most recent decision made by the four MRC member states to defer the building of the first dam on the Mekong mainstream on their territory, the Xayaburi Dam in Laos (BBC, 2011a), might also be a positive sign. Eventually, China might be well-advised to readjust its strategy and incorporate more balanced strategies. Already in spring 2010, according to Storey (2010: 8), China had to move into "damage control mode."

Ultimately, an accelerated glacial melt in the Himalayas (and adjacent mountain ranges) due to climate change, as well as sinking water levels and severe environmental, energy, food, and human insecurities, are likely to arise (Morton, 2008: 59-61; 2011), and will also play a critical role in the overall regional "water game." According to one estimate, one-third of Himalayan glaciers will be gone by 2050, and two-thirds by 2100 (Pomeranz, 2009: 37). Like the sword of Damocles hanging over China and its neighbours, climate change could lead to region-wide instabilities that would finally endanger China's own development. All these episodes

and developments show that Beijing's actor-reversed issue linkage approach represents no comprehensive solution to the underlying grave water problems in China and along its periphery.

Notes

- ¹ The term DRCs refers to the decision-making elites of these states. Positions as taken by non-governmental organisations (NGOs) based in these countries are not included. Although the four DRCs are certainly at different development stages and do not always share the same interests, the fact that they are all in similar positions as far as China's dam-building is concerned allows them to be considered together. Where necessary this article will go into country-specific details.
- ² This quote does not contradict the earlier statement that China has freshwater scarcities. In fact, China is characterised by an enormous north-south divide in terms of water availability. While the south is more or less abundant in water, the north, where 60% of the country's land is cultivated and 45% of the population lives, has only 13.8% of China's freshwater resources. Consequently, in the north, some 380 million people, one-third of the country's entire population, live under conditions of "absolute water scarcity" (McCormack, 2001: 9).
- ³ Critics have even gone so far as to dub Beijing's approach as "hegemon[ic]" and related it to "great power bullying of smaller countries" (*Thanh Nien News*, 2010b).
- ⁴ Even though (some of) the DRCs have shown interest in hydropower generation themselves and have recently shown more determination in regard to constructing their own dams along the Mekong mainstream, this cannot simultaneously be equated with their consent to China's dams.
- ⁵ Hasenclever et al. (1997: 52) also speak of the possibility to act irrationally and hurt oneself in order to punish the Rambo. For our purposes, however, this "option" is not relevant and will be left out.
- ⁶ As an indicator for this assertion, it is insightful to look at the Vientiane Plan of Action for Greater Mekong Subregion Development 2008-2012, http://www.docstoc.com/docs/22264941/VIENTIANE-PLAN-OF-ACTION-for-GMS-Development-Greater-Mekong (accessed 2 January 2010). This plan lists all ongoing and planned projects within the GMS and their sources of finance.
- ⁷ In summer 2008, the northern provinces of Laos and Thailand suffered from record floods, causing severe damage. While many Thais believed that waters released from the reservoirs of Chinese dams contributed to the runoff swelled from heavy rainfall, official responses saw no connection (McCartan 2008; MRC, 2008).
- 8 In defence of the DRCs, it has to be stated that the causal relationship between the low water levels and the dams or a severe drought respectively could not be fully established. It is possible that factors other than China's dams contribute to drought and flood situations in the DRCs. Deforestation, both in China and the DRCs, may play a role in this regard. Climate change is also looming large.
- ⁹ Vietnam may be(come) the exception among the DRCs in this regard. As it has more recently strengthened defence ties with the USA, Hanoi may also increase its willingness to defy China over the South China Sea dispute and other issues.
- An overview of some of the most salient Chinese investment projects in the DRCs can be found in Lim (2008: 9-12).

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