No. 69

CHINA IN THE MEKONG RIVER BASIN:
THE REGIONAL SECURITY IMPLICATIONS
OF RESOURCE DEVELOPMENT
ON THE LANCANG JIANG

Evelyn Goh

Institute of Defence and Strategic Studies
Singapore

JULY 2004

With Compliments

This Working Paper series presents papers in a preliminary form and serves to stimulate comment and discussion. The views expressed are entirely the author’s own and not that of the Institute of Defence and Strategic Studies
The Institute of Defence and Strategic Studies (IDSS) was established in July 1996 as an autonomous research institute within the Nanyang Technological University. Its objectives are to:

- Conduct research on security, strategic and international issues.
- Provide general and graduate education in strategic studies, international relations, defence management and defence technology.
- Promote joint and exchange programmes with similar regional and international institutions; organise seminars/conferences on topics salient to the strategic and policy communities of the Asia-Pacific.

Research

Through its Working Paper Series, IDSS Commentaries and other publications, the Institute seeks to share its research findings with the strategic studies and defence policy communities. The Institute’s researchers are also encouraged to publish their writings in refereed journals. The focus of research is on issues relating to the security and stability of the Asia-Pacific region and their implications for Singapore and other countries in the region. The Institute has also established the S. Rajaratnam Professorship in Strategic Studies (named after Singapore’s first Foreign Minister), to bring distinguished scholars to participate in the work of the Institute. Previous holders of the Chair include Professors Stephen Walt (Harvard University), Jack Snyder (Columbia University), Wang Jisi (Chinese Academy of Social Sciences) and Alastair Iain Johnston (Harvard University). A Visiting Research Fellow Programme also enables overseas scholars to carry out related research in the Institute.

Teaching

The Institute provides educational opportunities at an advanced level to professionals from both the private and public sectors in Singapore and overseas through the Master of Science in Strategic Studies and Master of Science in International Relations programmes. These programmes are conducted full-time and part-time by an international faculty from July each year. The Institute also has a Doctorate programme in Strategic Studies/International Relations. In 2004, it will introduce a new Master of Science in International Political Economy programme. In addition to these graduate programmes, the Institute also teaches various modules in courses conducted by the SAFTI Military Institute, SAF Warrant Officers’ School, Civil Defence Academy, Singapore Technologies College and the Defence, Home Affairs and Foreign Ministries. The Institute also runs a one-semester course on ‘The International Relations of the Asia Pacific’ for undergraduates in NTU.

Networking

The Institute convenes workshops, seminars and colloquia on aspects of international relations and security development which are of contemporary and historical significance. Highlights of the Institute’s activities include a regular Colloquium on Strategic Trends in the 21st Century, the annual Asia Pacific Programme for Senior Military Officers and the biennial Asia Pacific Security Conference (held in conjunction with Asian Aerospace). Institute staff participate in Track II security dialogues and scholarly conferences in the Asia-Pacific. The Institute has contacts and collaborations with many think-tanks and research institutes in Asia, Europe and the United States. The Institute has also participated in research projects funded by the Ford Foundation and the Sasakawa Peace Foundation. The Institute serves as the Secretariat for the Council for Security Cooperation in the Asia-Pacific (CSCAP), Singapore. Through these activities, the Institute aims to develop and nurture a network of researchers whose collaborative efforts will yield new insights into security issues of interest to Singapore and the region.
ABSTRACT

The Mekong River is a critical shared resource between China and five Southeast Asian countries, Myanmar, Laos, Thailand, Cambodia and Vietnam. Over 80 million people depend on the river for their livelihoods, but recent large-scale resource development, especially in the form of hydropower development, pose serious problems within the river basin. This paper focuses on China’s plans for hydropower development on its portion of the upper Mekong basin (Lancang Jiang) and their ecological, political and economic implications for the Southeast Asian riparians. It shows that the economic imperative prevails among all riparian states, and that China and the other countries tend to confine their cooperation to infrastructural development rather than consultation or management of potential adverse transboundary impacts of upstream development. However, the paper argues that ‘securitising’ this upstream-downstream problem is not the answer; rather, the way forward must involve first reconceptualising regional security in terms of comprehensive, human and economic security.

Dr. Evelyn Goh is Assistant Professor at the Institute of Defence and Strategic Studies. She graduated with first class honours in Geography from Oxford University and also holds an M.Phil. in Environment & Development from Cambridge University. She received a D.Phil. in International Relations at Nuffield College, Oxford, in 2001. She is the author of Constructing the U.S. Rapprochement with China, 1961-1974: From Red Menace to Tacit Ally (New York: Cambridge University Press, 2005). She has published articles on the diplomatic history of U.S.–China relations and contemporary U.S. foreign policy; and she also writes on ASEAN relations with China and with the U.S. Dr. Goh teaches modules on U.S. foreign policy, and Cold War history and international politics for the MSc courses at IDSS.
CHINA IN THE MEKONG RIVER BASIN: THE REGIONAL SECURITY IMPLICATIONS OF RESOURCE DEVELOPMENT ON THE LANCANG JIANG

Introduction

The Mekong is the eighth largest river in the world, with a basin covering 800,000 square kilometres of mainland East Asia.\(^1\) It flows through Yunnan province in southern China, Laos, Thailand, Cambodia and Vietnam; and forms part of the borders between Myanmar and China, and Myanmar and Laos.

Shared water resources epitomize the dilemmas surrounding common pool resources, whose use by one party diminishes the potential benefits to others. Rivers are particularly subject to these conflicts in terms of upper or mid-stream pollution, abstraction or impoundment, which may reduce the quality and quantity of water available to downstream users. Furthermore, in the case of an international river like the Mekong, the incongruence between hydro-ecological and political boundaries leads to conflicts between the principle of sovereignty as opposed to common resource issues of ownership, allocation, security and environmental degradation.

More than 80 million people (90% of the riparian population) depend upon the Mekong river for resources ranging from drinking water, fish, transport, irrigation water to the fertile land and forest products of its catchment area – mainly agriculturalists who rely on the wild freshwater fish as a key source of protein in their diets. The river’s largest development potential though, lies in hydropower and large-scale irrigation projects. These potential resources have been relatively undeveloped until now because of civil strife and wars, but the relative peace and subsequent economic development drive in the region in the 1990s has boosted a range of national, bilateral and multilateral plans for building dams on the mainstream and major tributaries of the Mekong to provide electricity and irrigation water. The troubled experiences in other large transboundary rivers like the Nile, the Jordan and the Tigris-Euphrates suggest that these developmental projects will have significant impacts on the environmental security of, and relations between, the Mekong basin states.\(^2\)

Given the extent to which its riparian states depend upon the Mekong for basic needs, and the uneven distribution of its resources and potential, the development of the Mekong river represents a truly regional challenge for mainland East Asia in terms of

---

1 A river basin is defined in hydrological terms as the catchment area or watershed of the river itself, including tributary and distributary streams, and the immediate surrounding land.

2 For a survey and analysis of these three cases, see Nurit Kliot, Water Resources and Conflict in the Middle East (London: Routledge, 1994).

An earlier version of this paper was presented at the the IDSS-Ford Foundation Workshop on Non-traditional Security Issues in Asia, 9-10 September 2003, Singapore.
scope and complexity. The regional security implications of the last decade of resource development in the lower Mekong basin (Thailand, Laos, Cambodia and Vietnam), has been studied widely.³ This paper focuses instead on China’s role in developments in the Mekong basin, a subject which is of vital importance, but which has been relatively under-analysed. It first discusses the key regional implications of China’s hydropower development projects on the upper Mekong – known as the Lancang Jiang in China – focusing on the potential ecological and political impacts. The second section investigates the prevailing regional approaches to developing and managing the Lancang/Mekong river basin, and the extent to which China and the other riparian states have consulted or cooperated to tackle current and potential problems. The final section assesses whether securitising China’s resource development on the upper Mekong can help in addressing these regional security implications, and offers some suggestions as to how the complex issues might best be conceptualised.

Regional implications of China’s Lancang Jiang hydropower development projects

Chinese developments on the upper Mekong basin are a critical issue. Beijing has begun large scale exploitation of the Lancang’s massive hydropower potential: since 1993, it has completed the first two in a series of seven planned hydropower stations designed to tap 60% of the flow of the river.⁴ Together, the entire cascade will have a combined installed capacity of 155.5 million kw (15,550 MW), and will generate 74.1 billion kwh of electricity per year.⁵ Table 1 shows details of the five key dams which have been planned.⁶

In gross terms, the Lancang contributes 16% of the Mekong’s total discharge, but in real terms, it contributes 100% of the flow at the Laos border and 60% as far downstream as Vientiane, 20% at Pakse in southern Laos, 15-20% in Vietnam, 16% at

---
⁴ Tian Fang, Lin Fatang & Bi Daolin, eds., Lancang Jiang – Xiao Taiyang (Kunming: Yunnan People’s Press, 1989). The orginal plan was for a 14-dam cascade, but this was subsequently revised down to seven dams.
Phnom Penh. It also provides an important component of the crucial minimum dry season flow along most of the mainstream of the Mekong in Laos and Thailand – even in Cambodia, the Lancang contributes almost 45% of the average flow in April.\(^7\)

According to proponents, the potential basinwide benefits of the Lancang cascade include: the development of a renewable energy course; help with flood control in the wet season; and increased water supply downstream during the dry season for irrigation and navigation. The last will be the major consequence of the Chinese dams as the wet season impacts are expected to be less dramatic. Estimates range from a 40% increase overall, to the expectation that once the Xiaowan dam is completed, the impoundment of water during the wet season will increase dry season flows by as much as 70% as far downstream as Vientiane.\(^8\)

**Table 1.** Existing and planned hydropower stations and dams on Lancang Jiang.

<table>
<thead>
<tr>
<th>Power station</th>
<th>Status</th>
<th>Generating capacity (million kw)</th>
<th>Estimated cost</th>
<th>Storage capacity (100 cubic kilometres)</th>
<th>Size of dam</th>
<th>Estimated numbers to be resettled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manwan</td>
<td>Completed in 1993, operational in June 1995</td>
<td>1.25</td>
<td>200 million yuan</td>
<td>9.2</td>
<td>126m high dam wall</td>
<td>3,000</td>
</tr>
<tr>
<td>Dachaoshan</td>
<td>First generator opened December 2001, operational June 2003</td>
<td>1.35</td>
<td>US$800 million (transmission lines funded by Asian Development Bank)</td>
<td>8.9</td>
<td>110m</td>
<td>5,200</td>
</tr>
<tr>
<td>Xiaowan</td>
<td>2012-2017</td>
<td>4.2</td>
<td>25 billion yuan (US$3 billion) – Chinese bank loans</td>
<td>150</td>
<td>169km long reservoir, dam wall 292m (one of highest in world)</td>
<td>33,000 (will flood 90 sq km)</td>
</tr>
<tr>
<td>Jinghong</td>
<td>2004</td>
<td>1.5</td>
<td>US$1 billion 70% investment from Thailand (electricity buyer)</td>
<td>12.3</td>
<td>Dam wall 118m</td>
<td>1,700</td>
</tr>
<tr>
<td>Nuozhadu</td>
<td>2006</td>
<td>5.5</td>
<td>US$3.6 billion</td>
<td>227.4</td>
<td>Reservoir length 226km,</td>
<td>14,800</td>
</tr>
</tbody>
</table>


\(^8\) Ibid., p.4.
However, China has developed its hydropower plans for the Lancang unilaterally, and has declined to become a member of regional institutions such as the Mekong River Basin Commission, which is responsible for coordinating environmental issues. Indeed, the lower Mekong states did not learn of China’s hydropower plans until the early 1990s. This poses a classic free-rider problem, as China is the uppermost riparian state and the most politically powerful country in the basin, with the fastest economic growth rates. Beijing could well push forward with its ambitious plans for the Lancang, to the detriment of its downstream neighbours.

The potential adverse consequences on downstream states are ecological and political. They may also be framed in environmental security terms in two ways. First, in the relationship between environmental degradation and conflict, which speaks to the ‘traditional’ national security concern about environmental factors contributing to potentially violent inter-state conflicts.\(^9\) Second, in the relationship between environmental degradation and social welfare – this is the ‘non-traditional’ area of ‘human security’, which concerns itself with the adverse effects of environmental scarcity and degradation on the well-being of communities.

The potential ecological problems associated with China’s dams on the Lancang Jiang are many and varied, and the following are but some of the key expected effects.

- **Water impoundment**

  Large dams are often dangerous because of the increased frequency and magnitude of landslides and earthquakes caused by construction, the weight of the impounded water, and water seepage into fault lines in the reservoir area. In this instance, a big landslide (150,000 cubic metres of soil) occurred during the construction of Manwan dam on 7 January 1987, and the Xiaowan dam is planned very near an earthquake-prone zone.\(^10\)

  The filling of large dams can also have detrimental effects. It is estimated that the two biggest dams on the Lancang cascade (Xiaowan and Nuozhadu) will each take up to 10 years to fill, on the assumption that half the water flow is held back during the filling period. But the impoundment upstream during this period will affect areas downstream, as witnessed during the filling of the much smaller Manwan dam in the dry season of 1993, when dramatic falls in water levels downstream caused the Thai authorities in the northern province of Chiang Rai to complain to Bangkok and Beijing.

---


\(^10\) Hori, op. cit., p.207-8.
Furthermore, the flood and drought control capacity of the Chinese dams for downstream areas is highly debatable. The main purpose of these dams is to store water for generating electricity, and so during the dry season, they are likely to withhold water; and if large floods occur, they are likely to have to release water anyway to protect the dams themselves. The latter might have been demonstrated during the unusually high floods downstream during September/October 2000, when some allege that excess water was released from the Manwan dam.\(^{11}\)

- **Flow regulation**

Flood regulation during normal years will mean fewer seasonal floods downstream. Yet, seasonal floods deposit nutrients and sediment onto the natural flood plains, and a reduction of these deposits will cause the natural soil fertility to decline over wide areas of rice cultivation in the lower Mekong basin. Farmers will need a massive programme of artificial fertilising to cope with these changes, but they will also need to find new strains of crops to grow in the new hydrological regime. This is because many strains of crops grown in the basin are adapted to the existing conditions – for instance, 80% of the rice paddy grown in Cambodia is closely tied to annual floods.\(^{12}\)

Flood regulation will also affect agriculture and salinity in the delta areas. Salt water intrusion is a natural phenomenon here and agriculture has adapted to it e.g. rice cultivars grown are adapted to salinity; and irrigation systems in the delta depend upon tidal hydropower pushing freshwater into the canals. At the same time, the seasonal floods serve to flush the delta areas, providing some natural constraint to salt water intrusion from the sea. Fewer and lower floods will thus increase salinity in the delta.

Conversely, higher dry season flows will flood riverbank truck gardening (common along the Mekong), a small-scale but prevalent form of supplementary agriculture which exploits the fertile exposed floodplain land during the dry season. Along with the expected decrease in nutrient supply, thus crucial livelihood strategy will see lower yields.

- **Aquatic life**

Fish and other aquatic species adapted to the ecosystem (such as the sediment-rich and turbid water conditions or the reverse flow of the Tonle Sap during the dry season) will experience serious disruption in feeding habits. Also, higher water levels during the dry season that do not expose rapids in the middle section of the river, and lower water levels in the flooded forests of southern Laos and Cambodia in wet season, will diminish crucial spawning and nursing grounds for migratory fish. The decline in biodiversity will be accompanied by falling productivity in the wild-capture fisheries that


\(^{12}\) Ibid., p.8.
are important to Mekong communities. These fisheries, which trap migratory fish, yield about 1 million tonnes annually (40% in Cambodia) in the lower Mekong basin, where fish provides 80% of animal protein in people’s diets.\(^{13}\)

- Sedimentation

It is estimated that half of Mekong’s annual sediment load originates in the Chinese part of the watershed.\(^{14}\) As this is mainly coarse grit rather than sand, and carried as bed load or in suspension, the contribution is difficult to measure.

The planned series of dams on the Lancang Jiang will trap a large proportion of this sediment, and greatly decrease the sediment load of the river. This will lead to significantly more erosion downstream, which will alter the channel’s course, weaken structures such as bridges and increase coastal erosion in the delta. The latter might be expected to balance out or exceed the benefits of combating salt water intrusion with higher dry season flows.

Furthermore, such rapid sedimentation rates upstream may make the Lancang cascade less cost-effective than many think. For instance, prior to construction, Manwan dam was estimated to have sufficient dead storage capacity to withstand sedimentation for 20 years, yet within three years of operation, the loss of effective storage had already reached that assumed for 15 years. Ironically, proponents of the cascade expect to deal with this problem when the Xiaowan dam is built upstream of Manwan, but this is a dubious assumption, and opponents and some ecologists now suggest that the useful lifetime of cascade is likely to be only about 30 years, rather than the 100 years as claimed by its proponents.\(^{15}\)

The most critical political ramification of China’s hydropower development on the Lancang Jiang is that China will be able to control the quantity of water released to downstream countries. The worst affected states will be those furthest downstream, Vietnam and Cambodia. The lack of any formal agreements, even of the minimum kind found in the Mekong Agreement for the lower basin (which obliges riparian states to consult with or to inform the others in the case of any projects), means that there are no safeguards in place.\(^{16}\)

Moreover, the lower Mekong countries have reason to be concerned about the potential adverse transboundary ecological impacts of China’s projects upstream, as no environmental impact assessments are known to have been carried out for the Lancang

---


\(^{14}\) Blake, op. cit, p.5; Roberts, op. cit., p.5.

\(^{15}\) Ibid., p.6-7

\(^{16}\) On the Mekong Agreement, see Goh, op. cit., p.477-80.
cascade. Recent experience with the blasting of rapids on the river at the China/Laos/Thailand border has shown environmental impact assessments carried out by the Chinese to be controversial, leading to the scaling back and partial suspension of the project this year.\textsuperscript{17}

Regional approaches to developing and managing the Lancang/Mekong river basin

Given the plethora of potential transboundary problems with China’s plans to develop the Lancang Jiang, how have China and its neighbours tried to tackle this issue? How might we characterise the existing regional approach to developing and managing the Lancang/Mekong basins?

*Perception of river resources*

It is useful to begin by asking how the Lancang/Mekong river is perceived, and in what context is resource development conceived by the riparian states. The Mekong is called ‘The Mother of Rivers’ (*mae khong*) in its lower reaches, and is regarded as a life-sustaining source by the communities which live along it. However, all the riparian states are rapidly developing countries in which the economic imperative enjoys remarkable primacy, and the development of the river basin’s resources tend to be regarded by governments mainly in terms of resource exploitation to advance national economic growth. As Khy Tainglim, Cambodia’s Minister of Transportation, put it: “Water is our oil, our mines of gold, our main natural resource, and we should use our water to export and get foreign currency to develop the country”.\textsuperscript{18}

China is no exception. Its gradual economic liberalisation from the 1980s and the opening up of the Chinese economy to the outside world in the 1990s has allowed government expenditure to be supplemented by foreign aid and investment for regional infrastructure and power projects from international agencies. As part of its national economic development drive, the Chinese government has ambitious plans of transferring electricity from west to east within the country, and also to supply hydropower-generated electricity to Southeast Asia.

At the national level, China is the country with the largest exploitable hydropower resources in the world. Its total exploitable resource of 378 million kw is concentrated in the southwest, central and northwest parts of the country (where only less than 30% has been exploited so far), while its key areas of growing demand are in the east and the south (the Shanghai Municipality, Guangdong, Jiangsu, and Zhejiang provinces). Thus, a


\textsuperscript{18} ‘“Water is our gold” – The battle of words begins’, *Phnom Penh Post*, 8-21 March 1996.
huge west-to-east hydropower electricity transfer as part of national strategy to open up and develop the western region is seen as an “inevitable option”.  

At the regional level, Yunnan province possesses the second greatest workable hydro-energy resources in the country. The provincial government envisages that “Yunnan province will become an energy depot not only for China, but also for southeast Asian countries.” In 2001, Yunnan exported 900,000 kw electricity to Guangdong; as other hydroelectric power stations are built on the Lancang, it is estimated that after 2015, it will send 8 million kw per year east. From January 2002, the province started selling electricity to Laos, and it will also sell 1.5 million kw per year to Thailand from 2013, and another 1.5 million kw per year from 2014.

Although China has not shown any interest in joining the Mekong River Commission, which is involved with coordinating resource allocation and environmental issues in the lower Mekong basin, it has participated actively in the Asian Development Bank’s Greater Mekong Subregion [ADB GMS] programme and ASEAN’s Mekong Basin development programme. The latter focus on regional economic development projects, particularly regional power development and transfers, and regional infrastructural network development (including a regional highway and the opening up of the Mekong river for navigation by big commercial ships). These programmes will help to integrate the Chinese and mainland Southeast Asian economics, reviving the traditional overland trading routes between China and Southeast Asia. As a major avenue of regional economic integration, the mutual enthusiasm for the GMS programme ensures greater Chinese competition for influence in Southeast Asia against Japan.

One of the most prominent flagship initiatives of the GMS programme is the Mekong power grid. With the involvement of the World Bank, the Japan Bank for International Cooperation and ASEAN, it is hoped that the regional grid will boost the system for regional power trade and private investment in the power sector. It involves proposed transmission lines to connect Thailand to the Jinghong and Nuozhadu dams on the Lancang Jiang and dams on the Salween River in Burma; and Thailand and Vietnam to the controversial Nam Theun II dam in Laos, amongst other dams planned in Laos and Cambodia.

21 See, for instance, Building on Success: A Strategic Framework for the Next Ten Years of the Greater Mekong Subregion Economic Cooperation Programme (Manila: ADB, 2002).
Environmental issues

In the course of planning and seeking funding for these ambitious hydropower projects, the various governments have not addressed environmental concerns consistently. Instead, NGOs and international research networks have been most active in disseminating information about actual and potential effects of these developments on local communities and regional relations. The policy makers and academics from China working on the subject are well aware of the international controversy, but they argue in favour of the economic imperative in spite of environmental costs. For instance, two leading Chinese experts wrote in 1997 that:

Today, some developed countries such as the United States are stepping out of the ‘dam building age’… But…developing countries…have to build dams to satisfy the requirements of…rapid socio-economic development as well as…increased population, even though they lack experience in planning, construction and management of dams, and are poor in technology and experience in handling environmental and ecological problems.23

They also argue the cost-effectiveness of developing hydropower on the Lancang instead of on the Mekong, calculating that the total cost of building the Lancang cascade will be 33.5% of that for dams on the Mekong mainstream because of fewer resettlements, less inundation of land and higher power generation capacity. These calculations have the greatest potential impact on Laos, which is hoping to become the hydropower centre for mainland Southeast Asia. He & Kung estimate that Yunnan province will be able to sell electricity more cheaply to the region than Laos can – for instance, electricity provided from the planned Nam Theun II dam in Laos to Thailand is set to cost 4.55 cents (0.40 yuan) per KWh, as compared to 0.30 yuan for electricity supplied from the Jinghong dam to Bangkok.24 If such projections are accurate, we may expect the regional power market to become even more demand-led and the exacerbation of Laos’ problems of asymmetrical dependence on the Thai market for its hydropower-led development strategy.25

Apart from the stark economic imperative evident in Chinese attitudes towards dam development, there is also a degree of myopia in considering environmental impacts. Existing Chinese studies largely do not take into account environmental costs downstream of the Lancang cascade. This is in part because the plans were made unilaterally, before Yunnan province was opened to foreign trade in 1985, and at a time when China’s political relations with the lower Mekong riparians were cool in the 1980s. Yet, the few more recent studies of downstream impacts focus on the potential positive

---

23 He & Kung, op. cit., p.9-21.
24 Ibid., p.3-16.
25 The government of land-locked but mountainous Laos is pinning its hopes for economic development on the single industry of exporting hydropower to its neighbours. On the dangers of dependency arising from this, see Goh, op. cit., p.483-7.
effects and dismiss the likely negative ones. For example, Chapman & He assert that the overall effect of the Lancang dams on the river flow will be “negligible” – except for an augmented dry season flow of 171% at the Laos border and a reduction of wet season flow by as much as 25%. They also cast doubt on possible adverse impacts on fisheries, citing the lack of data, the presence of other causes and the ultimately lower importance of fish; and emphasise that in some areas, like the Tonle Sap, environmental degradation “is already far advanced”.

In recent years though, Yunnan province authorities have paid some attention to environmental protection in the watershed. For instance, after bad floods in 1998, the government banned logging completely in Xishuanbanna prefecture in the Lancang basin; there are 111 established protected areas of various types (5.1% up to 6% of the total land area); new afforestation initiatives (33% of total land area); attempts to strengthen the regulatory framework on a variety of fronts; and to control industrial pollution and waste treatment in ‘Green Mountain and Clean Water Trans-Century Green Engineering Plan’. Yet, it still has a long way to go and problems include the lack of data and analysis, an effective environmental monitoring system, funding, well-defined policies and strategies on watershed management.

China-Mekong dialogue and cooperation

In light of the potential for cooperation and conflict in developing the Lancang and Mekong rivers, how have China and the other riparians talked about their plans and concerns vis-à-vis hydropower development on the Lancang Jiang? Has China tried to address the concerns of its downstream neighbours, and how does this issue feature in China’s general policy towards Southeast Asia?

Unfortunately, the channels of communication on this issue between China and the lower Mekong states are poor. Downstream states, especially Cambodia and Vietnam, have serious concerns about the impacts of Chinese plans, but they have no forum in which to voice them. There are no formal or regular multilateral meetings to exchange information, to consult, or to coordinate projects. There have only been two recent regional agreements relating to the Mekong basin: a 2002/3 agreement on hydrological data sharing, and the ADB GMS projects on the power grid and navigation.

However, most of the details of these projects are carried out in a bilateral manner, in which environmental concerns are seldom sufficient to change things. For instance, even though there were significant NGO and community protests about the environmental and livelihood consequences of the project to blast rapid and widen

---


channels in the upper Mekong in the last year, work plans were only put on hold primarily because of the Thai military’s concerns about the border demarcation with Laos if the Mekong river channel shifts as a result of blasting upstream.\textsuperscript{28}

The Chinese side views the development of the Lancang Jiang as a national issue. Aware of criticisms from anti-dam campaigners and international NGOs, Chinese experts have been speaking out against ‘inaccurate information’ and perceived attempts to sully China’s reputation. At the same time, however, these experts also recommend that the government pay careful attention to resettlement issues in particular (having probably absorbed lessons from the Thai government’s bad experiences with controversial dam projects such as Pak Mun).\textsuperscript{29} The Chinese government has also shifted its public rhetoric towards more conciliatory language, emphasizing “common benefits” to be gained from development projects on the Mekong, with the Prime Minister himself affirming the importance of enhancing capabilities in “ecological protection and rational development of water resources for sustainable economic development”.\textsuperscript{30} Yet, neither the government nor scholars have so far shown significant detailed engagement with broader ecological concerns, with agriculture, fisheries and other livelihood issues downstream. The main problem is that Chinese discussions of the implications of their hydropower plans do not take a basin-wide view, concentrating only on the impacts within Chinese territory, when it is the downstream riparians who will suffer most disproportionately the ill effects of China’s plans.

Here the existing power differential within the Lancang/Mekong system comes into play: downstream states do not feel that they are in a position to challenge China directly, partly because of its relative power, but also because of growing Chinese influence in the region. For example, increasing Chinese aid and investment in Cambodia in recent years – especially in the form of infrastructural investment in roads, bridges, sewerage systems, the Sambor hydropower station, and the Senate and National Assembly buildings – obliges Phnom Penh to tread carefully when expressing concerns about the impacts it might suffer from Lancang Jiang developments.\textsuperscript{31}

**Some ways forward: should Lancang/Mekong hydropolitics be securitised?**

\textsuperscript{28} ‘Blasting put on hold as threat to river border’, The Nation, 7 April 2003.

\textsuperscript{29} See, for instance, recent publications from the Asian International Rivers Centre at Yunnan University: Zhao Wenzhan & He Daming, Guoji guanzhu Lancangjiang kaifa kuajing yingxiang de zhiyao yanlu [Kay international discourse about the transboundary impacts of the development of the Lancang River]; He Daming, Gou Junhua & Gan Shu, Zhongguo-Dongmeng ziyounmaoyi jianshegongcheng zhong de lujiang kuojing shengtianquan wenti [Trans-boundary ecological security issues in the development of the China-ASEAN free trade area]; and Feng Yan & He Daming, Yingxiang Lancangjiang kaifa de guoji falu fagui wenti fenxi [Assessment of the legal and legislative elements affecting the development of the Lancang River], all published in April 2003.


Is there any way of ameliorating what is clearly a developing environmental and human security dilemma in the Lancang/Mekong basin? Considered from a conceptual starting point, how can the complex of non-traditional security issues be pulled together and addressed? Is the prevailing approach of applying diplomacy and bargaining over resource allocation while maximizing economic profit sustainable? Can ‘securitisising’ the issue of environmental management and resource development in the Mekong basin help by focusing higher-level interest and activity? Or is there a third way of more optimally addressing the problem?

The Copenhagen School has advanced a theory of securitisation which views securitisation as a move (consisting of a speech act and subsequent action) which frames an issue “as a special kind of politics or as above politics”, presenting it an existential threat which must be handled through extraordinary means, by breaking the normal political rules of the game if necessary. That is, securitisation is an extreme form of politicisation. Because the act of securitisation is intensely political, securitisation analysts are interested in who securitises, on what issues, for whom, why, with what results and under what conditions.32

Briefly, the issue of China’s hydropower development on the Lancang Jiang might be securitisied in a number of ways. First, China’s potential control over vital water flows to downstream states may be framed as a challenge to the sovereignty and autonomy of these states. Second, the possible large-scale and adverse impacts on communities within each of these states might affect the popularity and stability of the governing national or local regime, as seen in growing community mobilisation challenging the central government’s policies and priorities in Thailand. Third, expected problems with demand, supply and pricing (particularly if affected by the reduced lifespan of dams or the impact of environmental factors on electricity supply) when the regional power grid is in place, may lead to diplomatic tension between the riparian states. Fourth, the negative impacts on regional livelihoods and food supply may be vital in terms of the number of people affected, particularly in the absence of effective alternatives and/or increased empowerment of communities, and may lead to migration and other socio-political instability which may be securitised at the national level.

But has the issue of resource development and environmental protection in the Mekong basin been securitised thus far? The two following quotations aptly summarise the state of the debate surrounding Lancang/Mekong hydropower development currently:

The ultimate question may be: What matters most? Sustaining the fish populations and greater biodiversity, or providing a better life for the human population (now and in the future) in two of the world’s poorest countries, Laos and Cambodia?33

33 Chapman & He, op. cit., p.7.
What matters most? Developing the expensive, risky, and unsustainable Lancang cascade of hydropower dams and Mekong navigation, or sustaining the fish populations, biodiversity, and integrity of the Mekong River so that it continues to support the human population of Laos, Cambodia and Vietnam’s Mekong Delta? The Lancang hydropower dams will kill the Mekong and sedimentation will kill the Lancang hydropower dams.\textsuperscript{34}

As they indicate, the issue has not been securitised according to the definition offered by the Copenhagen School. Instead, the debate is framed very much in terms pitting the imperative of economic development against the demands of social and ecological sustainability. There have been occasional private complaints from government officials about national concerns, but there has been no corresponding marshalling of national attention or resources.\textsuperscript{35} This is partly because of the power differential – weaker neighbours do not want to offend either China or bigger and more advanced Southeast Asian countries like Thailand and the rest of the ASEAN-6, which strongly support regional development and Chinese integration. But it is also because the Chinese and Southeast Asian governments tend to count environmental and human security losses still very much as externalities. Their question is, why, when faced with the promise of electricity generation and exports, commercial navigation and other necessities for economic development, should these governments be obliged to even consider, not to mention securitise, ‘maybes’ – abstract potential environmental losses which may or may not happen at various points in the future?

On the part of NGOs and activists, there has been no securitisation act as defined by the Copenhagen School either. These groups tend to work at the level of communities and on issues such as fair resettlement and whether dams ought to be built in view of their negative impacts, and they focus on the protection of the environment and livelihoods, and the empowerment of local communities. At the rhetorical level, while there has been widespread use in recent years of rhetoric about ‘environmental security’ or ‘ecological security’ (\textit{wu tai an quan}) by Chinese academics and policy analysts, these terms tend to be employed in the geographical/ecological sense rather than in the political one.

Thus, this study deals with a case which ought objectively to have been securitised but has not been. By trying to explain why not, we help to draw some parameters for the conditions under which securitisation can or cannot occur.

The trend for securitisation in recent years has seen proponents arguing or at least implying that securitising an issue will lead to a greater ability to handle it effectively, by ensuring it the publicity and urgency to attract sustained attention, funding and action. And yet, excessive securitisation may lead to the creation or exacerbation of security


\textsuperscript{35} E.g., ‘Hun Sen Warns that Mekong Development Could Dry Up Tonle Sap Lake’, Associated Press, 12 February 2003.
dilemmas. Thus the dynamics of securitisation practice is complex; not all actors will want to securitise an issue, while others might over- or under-securitise it. It depends on the nature of the issue at hand, and the characteristics and preoccupations of the actors involved.

The act and process of securitisation is a political choice – when a problem is securitised, the act tends to suggest specific ways of addressing it which usually focus on a threat, defence, and often state-centred solutions.\(^\text{36}\) In the case of the regional impacts of China’s hydropower development on the Lancang Jiang, however, such responses are difficult because the clear us/them divide is impossible to put into practice as a result of relative power differentials; and because the states most at risk and with the greatest incentives to securitise, are precisely the ones who can least afford a state-centric response that emphasises the classical zero-sum approach because they are most vulnerable. Ecological problems, by definition, are transboundary and require positive-sum approaches. The securitisation concept may not be suitable because ecological damage is often unintentional and cumulative and cannot usually be solved by state defence mechanisms.\(^\text{37}\) At the same time, in this case, states appear to be part of the problem – either in perpetuating ecologically unsound development strategies or through governments’ inability to speak up on behalf of their people – while communities and individuals will suffer potentially adverse consequences. Furthermore, environmental conflicts tend to express themselves along traditional societal fault lines – the slow and cumulative effects of environmental degradation often act as the root causes of threats that become manifest in other sectors.\(^\text{38}\)

One preliminary conclusion here relates to the question of who securitises. That the size of the referent object affects the efficacy of securitisation has been suggested; for instance, the middle level such as states and nations are usually easier, although system and micro levels have been gaining ground.\(^\text{39}\) Here, we might add that securitisation is more likely in instances of lower power differentials between contesting groups. Indeed, we might suggest that securitisation tends more to be the tool of choice of the strong.

If we broaden our conceptual base beyond the Copenhagen School, however, we may suggest that securitisation can occur at multiple levels and that security may be better conceptualised in a “hierarchic[al] manner with different levels of abstraction”. At the level of the state, securitisation may occur when issues are vital to the political survival of the regime or the state, or when they are of such gravity and urgency that they require the mobilisation of a substantial part of the resources of the state.\(^\text{40}\) At the level of the local or regional community, issues of security are those which affect the core


\(^{37}\) Ibid., p.63-5.

\(^{38}\) Buzan et al, op. cit., p.84.

\(^{39}\) Ibid., p.36-9;

values, the livelihood and/or the way of life (identity?) of a community to the extent that their ability to adjust without a significant decline in their well-being is in doubt – this concept would be akin to those of societal security\(^{41}\) or human security\(^{42}\).

The difference lies in what our referent object happens to be. If we talk about ‘environmental security’, then we are redefining security to include other non-traditional threats to the security of states, and in so doing, the sustainability of the environment/ecological system is securitised. If we refer to ‘human security’, we focus upon military and non-military threats to the safety of societies, groups and individuals, thereby securitising human well-being in general.

However, the issue at hand is so basic yet so complex, and the lack of understanding so great – for instance, even the ecological unit of the Lancang/Mekong river basin is not often recognised, much less the potential plethora of ecosystem-wide cause and effects – that securitising the regional impacts of China’s hydropower development would not be helpful, as it would entail glossing across too many vital and necessary steps.

A more viable ‘third way’ may be a return to the middle ground of redefining security a la Jessica Tuchman Matthews.\(^{43}\) Three separate but inter-related notions of security can be employed:

1. **Comprehensive security**

   Chinese views of ‘security’ have traditionally been conservative and inward oriented. However, in recent years, the Chinese policy elite has moved towards more comprehensive and non-traditional, even cooperative concepts of security, in line with the new international discourse.\(^{44}\) This opens up the possibility of policy changes which would allow more consultation and coordination with neighbours, and participation in regional institutions governing Mekong development.

   Economic imperatives have also made some countries more receptive to the idea of comprehensive security, which pegs national security to a broader range of issues such as markets, investment climates, technological development and regional stability. There is room in this broadening security agenda for environmental and resource issues.

2. **Human security**

---

\(^{41}\) Ole Waever, ‘Securitization and Desecuritization’, p.65-71.


The negative impacts of dams on the environment and local communities tend to be treated as ‘externalities’ not factored into cost-benefit analyses. Yet such effects cannot be ignored, as they carry implications for social stability. This linkage has best been explored recently within the ‘human security’ literature. The concept of human security reaches beyond the state-level focus of traditional security studies, emphasizing the primary importance of protecting individuals from both violent and non-violent threats to their safety, rights and social systems – threats which include environmental degradation. The environmental conflict literature has drawn links between environmental degradation and national security in terms of the effects of social dislocation – especially migration and inter-community tensions – on political stability.

Yet, such effects are not confined to cross-border phenomena; they occur within states as well, especially where dislocation causes politically embarrassing protest campaigns from affected communities. Once environmental problems are recognized to have clear implications for human security and social stability, the key underlying issues become the often local-scale insecurities associated with the erosion of individual and group welfare and resilience; and concerns about distribution, civil liberties, accountability, and participation.

Key issues to watch in the Lancang/Mekong basin are the effectiveness of resettlement programmes for affected communities, and the efficacy of compensation procedures and retraining for lost livelihoods, as well as the controls on the amount of damage inflicted. This has become a high profile issue in the region because of the precedent of the Pak Mun dam in Thailand, where, because of the better opportunities and channels for civil organization, 3,000 affected villages have staged a long public campaign demanding compensation from the Thai government and the World Bank for lost fisheries.

3. Economic security

A number of authors have suggested with regard to environmental security that the most useful avenue to think about these issues is within the economy-ecology nexus,

---


where decisions are actually interlinked.\textsuperscript{49} Leaving for the moment the rather more technical issues of environmental accounting, there are two basic conceptual ways in which economic security should be taken into account in this case. First, the understanding that ‘mutually beneficial development’ (a popular phrase in the Chinese policy establishment) in fact includes the obligation to minimise externalities inflicted upon other riparians. Second, increased means of factoring ecological protection programmes into regional development projects such as those covered under the GMS. This would include instituting high standards of environmental impact assessments conducted by professional and neutral bodies and cross-boundary and local consultations.

At the same time, the relationship between sustainable economic growth and ecological protection must be understood. Similarly, China and its Southeast Asian neighbours may learn with greater regional economic inter-relations, that serious environmental and human security problems in one country can jeopardise the economic growth of the whole region if investors perceive high costs of instability.

In East Asia, a regional resource and environmental issue like the Mekong remains a relatively new non-traditional security issue, the salience of which is still in the process of being contested. This paper has demonstrated the effect of the framing of the issue on the efficacy of responses, and considered the lack of securitisation of a critical non-traditional security issue. Whether alternative processes can bring to light the vital interactions between ecological, social, human and ultimately, state security, remains to be seen.

1. Vietnam-China Relations Since The End of The Cold War
   *Ang Cheng Guan* (1998)

   *Desmond Ball* (1999)

3. Reordering Asia: “Cooperative Security” or Concert of Powers?
   *Amitav Acharya* (1999)

4. The South China Sea Dispute re-visited
   *Ang Cheng Guan* (1999)

   *Joseph Liow Chin Yong* (1999)

6. ‘Humanitarian Intervention in Kosovo’ as Justified, Executed and Mediated by NATO: Strategic Lessons for Singapore
   *Kumar Ramakrishna* (2000)

7. Taiwan’s Future: Mongolia or Tibet?
   *Chien-peng (C.P.) Chung* (2001)

8. Asia-Pacific Diplomacies: Reading Discontinuity in Late-Modern Diplomatic Practice
   *Tan See Seng* (2001)

9. Framing “South Asia”: Whose Imagined Region?
   *Sinderpal Singh* (2001)

10. Explaining Indonesia's Relations with Singapore During the New Order Period: The Case of Regime Maintenance and Foreign Policy
    *Terence Lee Chek Liang* (2001)

11. Human Security: Discourse, Statecraft, Emancipation
    *Tan See Seng* (2001)

    *Nguyen Phuong Binh* (2001)

13. Framework for Autonomy in Southeast Asia’s Plural Societies
    *Miriam Coronel Ferrer* (2001)

    *Ananda Rajah* (2001)
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author/Editor</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Natural Resources Management and Environmental Security in Southeast Asia</td>
<td>Kog Yue Choong</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>Case Study of Clean Water Supplies in Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Crisis and Transformation: ASEAN in the New Era</td>
<td>Etel Solingen</td>
<td>2001</td>
</tr>
<tr>
<td>18</td>
<td>Asian Developing Countries and the Next Round of WTO Negotiations</td>
<td>Barry Desker</td>
<td>2001</td>
</tr>
<tr>
<td>19</td>
<td>Multilateralism, Neo-liberalism and Security in Asia: The Role of the Asia Pacific Economic Co-operation Forum</td>
<td>Ian Taylor</td>
<td>2001</td>
</tr>
<tr>
<td>20</td>
<td>Humanitarian Intervention and Peacekeeping as Issues for Asia-Pacific Security</td>
<td>Derek McDougall</td>
<td>2001</td>
</tr>
<tr>
<td>21</td>
<td>Comprehensive Security: The South Asian Case</td>
<td>S.D. Muni</td>
<td>2002</td>
</tr>
<tr>
<td>23</td>
<td>The Concept of Security Before and After September 11</td>
<td></td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>a. The Contested Concept of Security</td>
<td>Steve Smith</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Security and Security Studies After September 11: Some Preliminary Reflections</td>
<td>Amitav Acharya</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Democratisation In South Korea And Taiwan: The Effect Of Social Division On Inter-Korean and Cross-Strait Relations</td>
<td>Chien-peng (C.P.) Chung</td>
<td>2002</td>
</tr>
<tr>
<td>25</td>
<td>Understanding Financial Globalisation</td>
<td>Andrew Walter</td>
<td>2002</td>
</tr>
<tr>
<td>26</td>
<td>911, American Praetorian Unilateralism and the Impact on State-Society Relations in Southeast Asia</td>
<td>Kumar Ramakrishna</td>
<td>2002</td>
</tr>
<tr>
<td>27</td>
<td>Great Power Politics in Contemporary East Asia: Negotiating Multipolarity or Hegemony?</td>
<td>Tan See Seng</td>
<td>2002</td>
</tr>
<tr>
<td>28</td>
<td>What Fear Hath Wrought: Missile Hysteria and The Writing of “America”</td>
<td>Tan See Seng</td>
<td>2002</td>
</tr>
<tr>
<td>No.</td>
<td>Title</td>
<td>Author(s)</td>
<td>Year</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>29.</td>
<td>International Responses to Terrorism: The Limits and Possibilities of Legal Control of Terrorism by Regional Arrangement with Particular Reference to Asean</td>
<td>Ong Yen Nee</td>
<td>2002</td>
</tr>
<tr>
<td>30.</td>
<td>Reconceptualizing the PLA Navy in Post – Mao China: Functions, Warfare, Arms, and Organization</td>
<td>Nan Li</td>
<td>2002</td>
</tr>
<tr>
<td>32.</td>
<td>11 September and China: Opportunities, Challenges, and Warfighting</td>
<td>Nan Li</td>
<td>2002</td>
</tr>
<tr>
<td>33.</td>
<td>Islam and Society in Southeast Asia after September 11</td>
<td>Barry Desker</td>
<td>2002</td>
</tr>
<tr>
<td>34.</td>
<td>Hegemonic Constraints: The Implications of September 11 For American Power</td>
<td>Evelyn Goh</td>
<td>2002</td>
</tr>
<tr>
<td>35.</td>
<td>Not Yet All Aboard…But Already All At Sea Over Container Security Initiative</td>
<td>Irvin Lim</td>
<td>2002</td>
</tr>
<tr>
<td>36.</td>
<td>Financial Liberalization and Prudential Regulation in East Asia: Still Perverse?</td>
<td>Andrew Walter</td>
<td>2002</td>
</tr>
<tr>
<td>37.</td>
<td>Indonesia and The Washington Consensus</td>
<td>Premjith Sadasivan</td>
<td>2002</td>
</tr>
<tr>
<td>39.</td>
<td>The Securitization of Transnational Crime in ASEAN</td>
<td>Ralf Emmers</td>
<td>2002</td>
</tr>
<tr>
<td>40.</td>
<td>Liquidity Support and The Financial Crisis: The Indonesian Experience</td>
<td>J Soedradjaj Djiwandono</td>
<td>2002</td>
</tr>
<tr>
<td>41.</td>
<td>A UK Perspective on Defence Equipment Acquisition</td>
<td>David Kirkpatrick</td>
<td>2003</td>
</tr>
<tr>
<td>42.</td>
<td>Regionalisation of Peace in Asia: Experiences and Prospects of ASEAN, ARF and UN Partnership</td>
<td>Mely C. Anthony</td>
<td>2003</td>
</tr>
<tr>
<td>43.</td>
<td>The WTO In 2003: Structural Shifts, State-Of-Play And Prospects For The Doha Round</td>
<td>Razeen Sally</td>
<td>2003</td>
</tr>
</tbody>
</table>
44. Seeking Security In The Dragon’s Shadow: China and Southeast Asia In The Emerging Asian Order
   Amitav Acharya (2003)

45. Deconstructing Political Islam In Malaysia: UMNO’S Response To PAS’ Religio-Political Dialectic

46. The War On Terror And The Future of Indonesian Democracy

47. Examining The Role of Foreign Assistance in Security Sector Reforms: The Indonesian Case
   Eduardo Lachica (2003)

48. Sovereignty and The Politics of Identity in International Relations
   Adrian Kuah (2003)

49. Deconstructing Jihad; Southeast Asian Contexts
   Patricia Martinez (2003)

50. The Correlates of Nationalism in Beijing Public Opinion

51. In Search of Suitable Positions’ in the Asia Pacific: Negotiating the US-China Relationship and Regional Security

52. American Unilaterism, Foreign Economic Policy and the ‘Securitisation’ of Globalisation

53. Fireball on the Water: Naval Force Protection-Projection, Coast Guarding, Customs Border Security & Multilateral Cooperation in Rolling Back the Global Waves of Terror from the Sea
    Irvin Lim (2003)

54. Revisiting Responses To Power Preponderance: Going Beyond The Balancing-Bandwagoning Dichotomy
    Chong Ja Ian (2003)

55. Pre-emption and Prevention: An Ethical and Legal Critique of the Bush Doctrine and Anticipatory Use of Force In Defence of the State

56. The Indo-Chinese Enlargement of ASEAN: Implications for Regional Economic Integration
    Helen E S Nesadurai (2003)

57. The Advent of a New Way of War: Theory and Practice of Effects Based Operation
    (2003)
   Irvin Lim (2004)

59. Force Modernisation Trends in Southeast Asia
   Andrew Tan (2004)

60. Testing Alternative Responses to Power Preponderance: Buffering, Binding, Bonding and Beleaguering in the Real World
   Chong Ja Ian (2004)

61. Outlook on the Indonesian Parliamentary Election 2004

62. Globalization and Non-Traditional Security Issues: A Study of Human and Drug Trafficking in East Asia

63. Outlook for Malaysia’s 11th General Election

64. Not Many Jobs Take a Whole Army: Special Operations Forces and The Revolution in Military Affairs.

65. Technological Globalisation and Regional Security in East Asia
   J.D. Kenneth Boutin (2004)

66. UAVs/UCAVS – Missions, Challenges, and Strategic Implications for Small and Medium Powers

67. Singapore’s Reaction to Rising China: Deep Engagement and Strategic Adjustment

68. The Shifting Of Maritime Power And The Implications For Maritime Security In East Asia
   Joshua Ho (2004)