

# Environmental and economic cooperation in the Mekong region

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**Abstract** Greater Mekong Subregional Integration has been promoted quite remarkably in the past decade with the support from key international and regional actors. Hard and soft infrastructure has been developed extensively. The road connection development in the Greater Mekong Subregion under the framework of East–West Corridor and North–South Corridor encourages more human and goods exchanges. The policy coordination and harmonization among the countries in the region have been upgraded but at a very slow pace. The future of the regional integration in the region is realizable through hard and soft infrastructure integration. As this article attempts to demonstrate, the main concern, though, still surrounds the issue of political willingness and real cooperation.

## Introduction

The Mekong River originates in the south-eastern Himalaya Mountains of China's Tibetan region and discharges into the South China Sea. The river is about 4,200 to 4,889 km long, and has annual discharge of 475 billion m<sup>3</sup>. For nearly half its length, the river flows through Yunnan Province, then crosses the “Golden Triangle” region, where it forms the border between Myanmar and Laos, and then a border between Laos and Thailand. The river then flows into Cambodia and Vietnam before ending in the South China Sea. The Greater Mekong Subregion (GMS) is defined according to the flow of the Mekong River and thus includes China (Yunnan Province), Myanmar, Laos, Thailand, Cambodia and Vietnam. The river not only creates the borders among the riparian countries but also constructs a sub-region which shares many interests, especially in transboundary water resource, economic relations, and other social and cultural exchanges. There are about 73 million people

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living along the river, and this number might reach approximately 120 million by 2025 (Kristensen 2001). About 85% of river basin inhabitants rely on the river for their livelihood such as fishing, rice production, aquaculture and crops production. Every year, however, flooding of the river and its tributaries has been prone to cause great damage to the villages of the lower basin, when, between June and September, the river level gradually rises due to the rainy season and water that is collected from tributaries. Thus, flooding is a major concern for people of the lower basin; needless to say, it is an obstacle to socio-economic development. Since this and other related issues require trans-boundary solutions, this short overview aims to provide a background and analysis of the regional cooperation and integration in the Mekong region within the context of Association of Southeast Asian Nations (ASEAN 2002) regional cooperation. It leads to a focus on the 2008–2012 Plan of Action agreed at the third GMS summit in Vientiane (March 2008) as this highlights a way forward based firmly on recent development trajectories.

## Historical background

After the Second World War, the Economic Commission on Asia and the Far East (ECAFE), created in 1947, provided some development projects on the Mekong River, starting in 1956. One year later, with United Nations (UN) support, the Mekong Committee was established. The committee functioned to give financial and technical support to the development projects, including dam construction to generate hydropower. This committee consisted only of Cambodia, Laos, Thailand and South Vietnam because the People's Republic of China was not yet internationally recognized and Myanmar was reluctant to join the committee. The committee lasted from 1957 to 1975.

The Mekong Committee could not realize its vision of large, multi-purpose dams on the lower Mekong River. In the 1960s only a small number of hydropower dams were constructed in Vietnam, Laos and Thailand. However, the committee performed a great job of producing a strategic management of the water resource. Extensive data on basin hydrology, geology, engineering studies, as well as social and economic aspects of water resources were gathered and disseminated. The committee had only interim status from 1978 to 1995 when Cambodia was absent owing to the civil war. The Interim Mekong Committee continued its work on hydrologic data gathering, water quality sampling and flood forecasting and warning. The most important outcome of the studies was the publication of the 1987 Indicative Basin Plan. This plan made quite substantial changes in water resources management paradigms and approaches, such as new emphases on environment and resettlement (Jacobs 2002).

In the 1990s, the end of the cold war led to stronger cooperation in the region. The sub-region has subsequently received funding from the Asian Development Bank (ADB) and the World Bank, the European Union (EU) and other donor organizations. In 1992, ADB proposed the Greater Mekong Subregion (GMS) Economic Cooperation Program. In April 1995, Cambodia, Laos, Thailand and Vietnam signed an agreement on “The cooperation for the sustainable development

of the Mekong River Basin”. This agreement gave birth to the Mekong River Commission (MRC) which replaced the Mekong Committee. The MRC is an implementing agency with its headquarters now in Vientiane.

The Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin came into being as the four countries saw a common interest in jointly managing their shared water resources and developing the economic potential of the river. Signed on 5 April 1995, with the consultation and negotiation between the UNDP and the members of the MRC, an Agreement on Cooperation for the Sustainable Development of the Mekong River Basin was signed. In 1996, Myanmar and China assumed observer status. The Agreement set a new mandate for the organization “to cooperate in all fields of sustainable development, utilization, management and conservation of water and related resources of the Mekong River Basin”. Since this 1995 agreement, the MRC has launched a process to ensure “reasonable and equitable use” of the Mekong River System, through a participatory process with National Mekong Committees in each country to develop procedures for water utilization. The MRC supports a joint basin-wide planning process with the four countries, called the Basin Development Plan (BDP), which is the basis of its Integrated Water Resources Development Programme. The MRC is also involved in fisheries management, promotion of safe navigation, irrigated agriculture, watershed management, environmental monitoring, flood management and exploring hydropower options. The MRC is funded by contributions from the four member countries and from aid donors. Formal consultation with the donor community is carried out through an annual Donor Consultative Group meeting.

The MRC’s mission is therefore to work for the benefit of all people in the region. The lower Mekong cooperation is quite progressive through the MRC which plays a very important role in bringing together all the four lower Mekong countries to discuss and manage the river. The main challenge for the MRC is the lack of capacity to address adequately the threats to the river and its people. Moreover, the activities of the MRC mainly focus on technical cooperation rather than the political and economic fronts. Moreover, the absence of upper Mekong countries such as China and Myanmar inhibits a comprehensive management of the river.

## **Key actors**

### United Nations

As mentioned above, the UN supported the establishment of the Mekong River Committee; when, after the Geneva Accords of 1954, Cambodia, Laos and Vietnam joined the ECAFE project, it was a formidable undertaking for a relatively young UN and for the participating countries, especially since the Mekong was regarded as one of the world’s great “untamed rivers”. The 1995 Agreement mentioned above represents a “coming-of-age” of the committee, as its name change (to “commission”) implies (Mekong River Commission 2009).

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## Asian Development Bank

In addition to the work of the MRC, with the support from the ADB, the GMS cooperation framework was established to promote economic cooperation between the six countries in the region and to provide international recognition of a sub-regional growth zone.

## ASEAN

To link the GMS with ASEAN, the 1995 ASEAN Summit created the ASEAN–Mekong Basin Development Cooperation (AMBDC). The main pillar of the AMBDC is a proposed railway corridor from Singapore to Kunming, Yunnan Province through peninsular Malaysia, Thailand and Laos, with branches connecting Cambodia and Myanmar. However, after a decade of its low performance, ASEAN decided to dissolve the autonomous AMBDC Council in 2006 and bring oversight of the AMBDC back to the ASEAN finance ministers (Weatherbee 2009, 121–122). The Mekong development plan especially for Cambodia, Laos, Myanmar and Vietnam has been given special attention under the framework of the ASEAN Integration Initiative (AIA). At the 35th AMM in Brunei, ASEAN foreign ministers endorsed the Hanoi Declaration on reducing the development gap in order to foster closer ASEAN integration.

## China

The Mekong region is the strategic and economic backyard of China which is emerging as the top trader, investor and donor in the region. China has increased economic and strategic interests in the Mekong region in the past decades, by using economic tools to increase political influence. China has shown strong engagement with the region though cooperation in main key areas such as energy, trade and investment. Moreover, China is active in participating in dialogues and discussions with other Mekong riparian countries in jointly developing the Mekong River and its system.

## India

Since 1989, under the Look East Policy, India has engaged in the Mekong region and ASEAN quite actively. The Mekong–Ganga Cooperation (MGC) was established on 10 November 2000 at Vientiane when the First MGC Ministerial Meeting was held and comprises six member countries, namely, Thailand, Myanmar, Cambodia, Lao PDR, Vietnam and India. There are four key cooperation areas—tourism, culture, education and transportation—which serve as a solid foundation for future trade and investment cooperation in the region. The working mechanism for the MGC consists of the Annual Ministerial Meeting (conjointly with the ASEAN Ministerial Meeting), the Senior Officials' Meeting and the five Working Groups: Tourism, Education (HRD), Culture, Communication & Transportation and “Plan of Actions” (Ministry of Foreign Affairs, Kingdom of Thailand 2006).

## Japan

Japan is actively engaged in Mekong development mainly through infrastructure development, human resources development and technical support. In late 2009, Japan pledged some US\$5.5 billion in support for the region and a Japan–Mekong initiative marked the Japan–Mekong exchange year 2009 and the first Japan–Mekong Summit that November. There are three pillars under the Japan–Mekong Initiative: *comprehensive* development, including both infrastructure between production sites and that in the least developed areas, the promotion of public–private cooperation and the development of cross-regional regulations and systems; *sustainable* development, to meet environmental and climate change challenges and to overcome perceived vulnerabilities, including the spread of diseases and economic disparities; and greater cooperation on a number of fronts, including parliamentary visits and exchanges, tourism and cultural heritage (Ono 2009).

## The United States

The year 2009 marked a return of the United States to the Mekong region with the first US–Lower Mekong Meeting in Phuket, Thailand. Three top priority areas supported by the US in the Mekong region are environment, health and education. More than US\$7 million was earmarked for environmental programmes in 2009 and US\$22 million in 2010, including the development of “Forecast Mekong” to assess the impact on climate change, and a “sister-river” programme between the Mekong and the Mississippi. In the health area, the US has earmarked US\$147 million, including enhanced response to pandemic threats, a regional network to identify drug-resistant strains of malaria, and measures to alleviate HIV/AIDS (U.S. Department of State 2010). As for educational support, US\$16 million for Fulbright and other programmes was granted in 2009, and expanding primary education enrolment and internet access also matters given attention (U.S. Department of State 2009).

## The European Union

In addition to the considerable development assistance granted by the EU member states (e.g., Agence Française de Développement support for the WMO’s Mekong–HYCOS [Hydrological Cycle Observing System] project, a flood warning system), the 1980 Cooperation Agreement between the European Economic Community and Indonesia, Malaysia, the Philippines, Singapore and Thailand, subsequently extended to most of the ASEAN countries, set general guidelines for cooperation at the Union level. Of central concern have been upland development, food security and human rights. The EU has more recently adopted a longer-term perspective which moves away from “traditional project support” to a policy dialogue approach and a “strategic dialogue with EU member states” (e.g., with the Lao PDR: Delegation of the European Union to Lao PDR 2010).

## Environmental cooperation

### The Basin Development Plan

The BDP is a core programme of the MRC and contributes to an acceleration of interdependent sub-regional growth base for investment and sustainable development. The BDP covers all major types of water related activities, such as irrigation, watershed management, fisheries, hydropower, navigation, flood management and mitigation and domestic and industrial use. Such a wide base is needed as each country has different kinds of resources and potential, according to the country's location. For example, a country on the upper Mekong might possibly get more chance to develop in hydropower while lower basin countries focus more on fisheries and agriculture. Within the framework of the GMS, the comprehensive Core Environment Programme and the Biodiversity Conservation Corridors Initiative (BCI) enhance the integration development with an eye to best environmental practices, especially in a climate change context. Of central interest here are the incorporation of greater environmental consciousness in tourism promotion and environmental assessment plans for the Mekong energy and transport sectors (Greater Mekong Subregion Economic Cooperation Program 2009). Since water is so crucial both to daily life and to socioeconomic development, water utilization in its various forms and aspects is a crucial factor in management and sustainable development.

### General environmental concerns

Given that the Mekong Basin has such a rich ecosystem and biodiversity, and that such a high proportion of the inhabitants work in farming and fishing, the integrity of the Basin's ecology is vital to their social, cultural and economic well-being.

Two strategies are key in Mekong environmental protection: the establishment of a common framework and the necessary operational capacity for addressing environmental protection and management challenges of the GMS Economic Cooperation Programme; and the prevention or mitigation of environmental hazards and threats posed by environmental degradation in the sub-region.

### Fisheries

Fisheries play a vital role providing food security and hard income for many impoverished rural families. The total value of the fisheries is some US\$2,000 million, and even this estimation understates the sector's wider macro-economic significance because it does not include the incremental value derived from resale, exports or associated industries. Even so, the fisheries make significant contributions to the economies of all four riparian countries, for example some 12% of the Cambodian GDP and 7% of the Lao PDR (Mekong River Commission Fisheries Annual Report 2005).

### Agriculture and irrigation

Because of the importance of agriculture to the sub-region, sustainable watershed management is of great significance, and policies are formulated so that a positive,

holistic approach can be taken across the intersecting sectors, from tourism to rice plantation and with sufficient attention to flood management efforts. Here sub-regional cooperation is more than a great benefit, especially since the main stream of the Mekong River and its tributaries are a potential source for the construction of hydropower and dams. Several significant hydropower dam projects are already in Laos and Vietnam. Along the Upper Mekong Basin, China has proposed several dam construction projects. As noted elsewhere in this issue, most countries in the region are facing high demand of electricity for the future development of their industrial sector; thus they need to get hydropower from the Mekong and its tributaries.

### **General environmental problems**

Although the Basin is relatively unpolluted, rapid economic development coupled with increasing population pressure are degrading the environment and resources at an increasing rate. The environmental programme therefore aims to maintain the health of the river through a strategy of monitoring, management and education. According to the World Bank report on water quality survey, water quality is declining, especially in the lower reach of the Mekong River (see also Vietnam Environment Monitor 2003). There has been some industrial pollution of the river, for example in Cambodia, but this might occur in other countries in the sub-region, especially as those countries develop their industrial sector without environmental oversight mechanisms firmly embedded in the consciousness.

### **Fisheries problems**

A major source of both protein and income, fish, once an abundant renewable resource, might become scarce if sustainable fishing methods are not introduced. About 1,200 species of fish have been identified in the Mekong River system, but several species are already endangered (e.g., the Mekong dolphin and the giant catfish [perhaps the world's largest freshwater fish]) and, if protective measures are not taken soon, many more could become threatened. Fish shortage is probably related not only to the rising population, lack of protection measures for endangered species (e.g., those which would prevent fishing during the hatching season) and competing development demands and opportunities. Dams provide many benefits (electric power, irrigation and flood control, etc.), yet they can change the flow of the river, setting up physical barriers to fish migration. Dams that substantially regulate flow typically decrease wet season flows and increase dry season flows. Hydropower operations can therefore significantly alter the flow pattern of the mainstream Mekong, changing the water quality regime or blocking the free passage of fish and other aquatic organisms. Hydropower development should therefore be balanced with other water use in the main river and its tributaries, and comparative advantages and disadvantages for respective groups and countries should be carefully considered, in a spirit of mutual consultation and the striving for consensus.

Hydropower construction itself can of course have a negative impact on the surrounding forest, biodiversity, etc., which in turn can impact rare or threatened

species. Deforestation and forest degradation also act negatively on flood buffering capacities and soil protection. Additionally, resettlement and compensation for loss of land and income opportunities are key problems when land is taken for reservoir or necessary structures. Given that such construction can damage indigenous cultures (ethnic minority groups), such development might increase refugees due to relocation of local people; eventually, they might become landless or homeless.

## **Economic cooperation**

### Energy

Energy cooperation is towards the top of the cooperation agenda in the Greater Mekong Sub-region. It aims to enhance access to modern energy to all sectors/communities, develop/utilize low carbon and renewable domestic resources while reducing oil dependence, improve regional energy cooperation and security and promote private participation in GMS energy development. Four key strategies for energy cooperation include: broadening GMS energy cooperation through enhanced efficiency and security and sustainable development of energy resources; building capacity for power trade operation, coordination and grid interconnection; implementing key GMS interconnection projects; and developing generation projects for power exports (ADB Technical Assistance Report 2005).

### Infrastructure connectivities

The North–South and the East–West Corridors are the two backbones of road connectivity and integration in the GMS. Through such connections, economic linkages can be created. As announced in the Vientiane Plan of Action for GMS Development 2008–2012, agreed at the third GMS summit in Vientiane (2008), key strategies for infrastructure connectivity are the completion of crucial parts of the network, enhancing links with other sub-regions; the promotion of private sector participation in infrastructural development; the development of transportation including the waterway; and general capacity building and comprehensive training programmes. Telecommunications plays a significant role in pushing economic integration through communication cost reduction, policy coordination and information sharing. The 2008–2012 Plan of Action lists several key strategies for telecommunication cooperation in the GMS, among which are the establishment of sustainable cooperation and management, including an enhanced role for private sector participation, and the completion of the “GMS Information Superhighway and Telecoms Backbone”. All this should be seen in the light of “development and poverty reduction in the GMS” and the economic corridors plan which allows for greater coherence of trade and economic outcomes across the geographical space, and greater overall connectivity to global markets, especially for landlocked Yunnan Province and the Lao PDR. Such a system ties well in with the Mekong as a means of connectivity.

## Tourism

There is a plan to promote the sub-region as a single tourism destination and develop tourism-related infrastructure; the Visit Mekong Years (2009–2010) campaign was one such initiative created to attract more tourists to the sub-region as a whole. Such a promotion is consistent with and an extrapolation from the 2002 ASEAN Tourism Agreement, which had as a main objective the establishment of an “integrated network of tourism and travel services”. Infrastructural development, such as that discussed above, is important in the endeavour in this promotion, especially in the context of the expanding field of green tourism. The 2002 agreement stresses “the use of environmentally sound technologies to preserve and conserve the natural heritage, the ecosystems and biodiversity and to protect endangered flora and fauna as well as micro-organisms”.

The Plan of Action lists several strategies for tourism development, among which are a greater attention to “high-yield markets”; cooperation in promotion both across the countries and with the private sector; and enhanced conversation efforts for green and eco-tourism. As much of this last mentioned, and perhaps across the region as a whole, balances the rural and the urban, tourism can route income to relatively poor areas and to “designated priority zones”. The Plan mentions enhanced cross-border trade and investment and public–private partnerships in agriculture, and extends institutional capacity in information sharing and general cooperation. One other outstanding issue is the lack of human resources, a constraint in developing the region. It is necessary for the Mekong countries to invest more in education and training. At the regional cooperation level, there is a need for regional countries to assist each other in education, training and research. Academic and research institution cooperation in this field is envisaged under the Plan, in order to pool resources to “achieve long-term sustainable capacity building and competitiveness” by skills upgrading and improved capacity, including through the use of the latest technology.

## Conclusion

In general, regional leaders are trying to create a conducive, favourable and competitive environment to facilitate trade and investment in the region. Through trade and investment, the region will become a single market, single regional production base or network, and attractive investment destination for the investors from the region and outside. The Plan emphasizes the implementation of the Strategic Framework for Action on Trade Facilitation and Investment and the GMS Cross-Border Transport Agreement which would assist in reducing issues associated with sub-regional trade and investment, in particular by enhancing private sector partnerships through joint investment conferences, technology access and networking improvements.

Environmental and economic cooperation in the Mekong region is pushed not only by local conditions but also by both international and external actors. As mentioned above, with the financial and technical support from the UN, ADB, ASEAN, China, India, Japan, the United States and the EU, the region has been

evolving quite robustly. In addition, the regional key players both cooperate and compete with each other to gain influence in the region. In this context, the region evinces both opportunities and challenges for regional cooperation. Different national interests are the main constraint towards the formulation of common regional interests. Through institutional improvement, especially the MRC and the Greater Mekong Subregion Project, the region can better cope with challenges. The future of the Mekong Subregion relies on the cooperation among the key actors and the strengthening of regional institutions.

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