

THE STATUS OF THE NAVIGATION ON MEKONG RIVER IN THE SUB-REGION AND RELEVANT ISSUES

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Abstract

The most important international river in Asia, the Mekong passes through six countries. It totals a length of 4880 km, making it the twelfth longest river in the world. At present day, different riparian countries stress developing different water-related sectors, including navigation, irrigation, fisheries, hydropower and tourism. However, due to the uneven distribution of water resources, different needs from the river can always cause discord. For this reason, how to obtain one or two common sectors that could make all the riparian countries join hands together is a challenge all the governments are facing. On the basis of these common sectors, a comprehension on the other water related sectors could be achieved. As one of the oldest sectors developed by humankind, navigation should by all means be given first priority for development, and draw more attention from all the riparian countries. There are many socio-economic benefits to be reaped from developing navigation, such as border stability, development of border trade, alleviating poverty, and reduction of the negative affect on local environments, along with putting a curb on across-border crimes and border turmoil. As such, it will greatly benefit local society. In addition, before the integrated transport net within the basin area comes into being, the joint development of navigation will accumulate rich experiences for the other cross border transport modes (highway, railway) planned for the following years.

Key Words: *Navigation, Mekong River, Status*

The Necessity of the Development of Navigation

**Low Investment but Earn High Social-Economic Benefit
(Poverty Alleviation, Attracting Investment)**

With the exception of Thailand, the other five Mekong countries are poor, so it is impractical to improve transport infrastructure on a large scale unless they have the financial capacity to do so. However, the investment costs of improving waterways is relatively low compared to the large investments required to build highways or railways

with the same transport capacity. According to approximates based on China's past experience in infrastructure construction, the investment cost of building one km of highway (class one) ranges between 1.6 millions and 4.0 millions \$US (based on different topographical features). In contrast, water channeling is more economical.

For example, in 2002, China, Laos, Myanmar and Thailand jointly launched the navigation channel improvement project. With financial aid from China, the channel across the China-Myanmar boundary to Ban Houei Sai (Chiang Khong) has been greatly improved by removing the major rapids and scattered reefs in the middle of the river. Yet, the total investment of this project was only \$500 US. Despite the limited funds, the transport capacity has been greatly enhanced. Before the channel improvement project, the channel could only be seasonally navigable for 60-100 Ton vessels. Now, 150 ton vessels can navigate on the river all year round, and in the raining season, even 300-ton cargo vessel can pass through channel.

Thus, the cargo volume along the Upper Mekong river have significantly increased, and the trade volume among Upper-Mekong river had been promoted, which proves that waterway transport is an advantageous mode of transport because of its low cost and high productivity and it is environment friendly.

All of these factors could benefit socially and economically. It is noted that for most Upper-Mekong countries, the Mekong River passes through remote areas. Inhabitants of these areas live a traditional lifestyle, as they are quite isolated from the outside world by mountains. As there are limited resource on which local people can depend on for their livelihoods, social-economic development in many of these areas is stagnant. How to help local societies attain basic necessities and improve their standard of living is an urgent problem that governments need to confront. At present day, the mode of production of local people is mainly subsistence based, such as hunting, fishing and deforestation, directly obtaining their living needs from nature. This is putting a great strain on the natural environment.

Owing to the steep mountains and ragged terrain, there is a deficiency of cultivatable land. This, coupled with difficulties in accessing modern technology, means their yields are very low, and, for this reason, most ethnic groups are extremely poor, existing on less than one \$US a day. In order to survive, local people grow opium or engage in other cross border crimes and this is the main reason why drugs are hard to eradicate. Therefore, how

to acquire a sustainable livelihood for local societies is a main concern of river basin governments.

Many successful cases in other parts of the world have proved that transport infrastructure is a first priority that needs to be considered. A sound transport infrastructure breaks the isolation, and links local areas with the outside world. This, in turn, paves the way for social and economic development. As mentioned above, due to the enormous investments required, and because of environmental concerns, there is little chance that highway or railway infrastructure will be built to link these remote areas in the foreseeable future. However, natural rivers and their tributaries provide transport routes in the context of insufficient investment capacity.

As one of the oldest businesses, waterway transport is by all means the best choice. Once waterways are developed to a certain extent, local people can use them to transport their agricultural products, develop tourism and attract foreign investment. Furthermore, maintaining waterways is far less costly than highways.

In the following years there is likely to be growth in the different sectors of the economies of Laos and Cambodia, so the transport volume within these countries will increase rapidly. However, the road infrastructure in the northern parts of Laos is fairly poor, which will make it difficult to meet the requirements of the intensifying transport business. There is no doubt that developing waterways is the best solution to this problem.

Encouraging the Development of Tourism

With waterway transport infrastructure developing to a certain level, tourism could be introduced, and this would bring employment opportunities to local people. From Xishuanbanna, China, to Luang Prabang, Laos, there are diverse charming scenic spots and historical sites as well as quaint traditions and unique cultures. Mother Nature endowed this river with perfect conditions to develop tourism. Unfortunately, the present infrastructure is still in a poor condition, and the inadequate improvement of channels, are an obstacle to the development of tourism activities. Therefore, riparian countries should give tourism. Right now, tribes or villages in different countries could kick off tourism development, by making the Upper Mekong River a multi-destination area

including tours, holiday resorts and scientific exploration.

So far, there great changes have taken place in the villages on both sides of the river upstream, which can be attributed to the great development in navigation on the river since the beginning of the 1990s. Many mountain ethnic groups moved from the mountaintops to the riversides. According to statistics, the total number of tourists who annually visit the northern part of Thailand is over 12 million, of whom, a certain number of them are willing to sail upstream to China. If 10 - 30% of these tourists could be encouraged to visit China, Myanmar and Laos via the Upper-Mekong River, then tourism in the upper river basin will be greatly promoted, and local societies will benefit. The opposite is also true. Every year, 15 million tourists visit Yunnan Province, many of whom then go on to visit the Gold Triangle, northern Thailand, Luang Prabang, and other fantastic places in the upper river basin. If only 20% of them could sail downstream to the Laos, Myanmar and Thailand, tourism in the Upper Mekong basin would be prosperous, which, in turn, would contribute towards poverty alleviation.

To Promote the Communication of Religion and Culture

Due to historical reasons, suspicions harbored among people in the Mekong region have not yet faded away. With globalization processes, communication among different countries is being improved and strengthened, but border conflicts still sometimes occur, partially because of the insufficiency of communication in different fields among people, which is directly or indirectly caused by poor transport conditions.

But people in the basin desire to communicate in different ways, - as matter of fact, people in the basin share the similar cultures and religions. Laos and Thailand even share a similar language, and thus have a sound foundation for communication. In the early days, people had already used this river as their communication channel. So today, there is no reason not to put the river to good use to strengthen people 's communication in different ways — including culture and religion. From a historical perspective, this proved to be very useful to lessen estrangement among people. Communication between temples and the influence of religion can play an important role in appeasing social conflicts.

Inter-Transport modes Boost to Each Other

Some people deem that as the multi-transport networks gradually develop, highways and railways will overwhelm waterways, eventually replacing them all together. For example, the highway that links Kunming to Bangkok which passes through three countries from north to south, could compete with the Upper Mekong River in terms of attracting cargo transport, and pose a challenge to existing waterborne transport.

However, according to some estimates, the volume of cargo flow from north to south and from south to north could reach over 6 millions tons per year. The trade volume between Yunnan and Thailand could grow to 88 millions \$US. But the total transport capacity of highways is unable to meet this demand. Therefore, waterways will always obtain sufficient cargo. Moreover, with the completion of highway, the cargo that was previously transported by sea will now be transported by road, which will stimulate the growth of cargo volume in the region, which will, in turn, stimulate the development of navigation. The figures in table 1 show the trade volume of five Mekong River Basin countries in 2000, and the corresponding figures in table 2 reveal the trade volume between China and the other five countries from 1996 to 2000.

Table 1 The Trade Volume of Five Mekong River Basin Countries in 2000

Country	Total volume of foreign trade	Export	Import
Myanmar	36296	29301	6993
Laos	1926	1336	590
Thailand	3158	2356	802
Cambodia	66	66	-
Viet Nam	10030	9264	766
Sum up	51474	42323	9151

Table 2 Trade volume between China and Five Mekong River Basin Countries from 1996 to 2000

Country	1996	1997	1998	1999	2000
Myanmar	65835	64350	57731	50803	62126
Laos	3484	2875	2579	3172	4084
Thailand	314525	351476	357303	421618	662422
Cambodia	7024	12070	16174	16012	22375
Viet Nam	115063	143564	124589	131815	246643
Sum up	505931	574335	558376	623420	997650

These tables show that the trade volume between China and the other sub-region countries experienced a significant increase between 1996 and 2000. However, 90% of this trade was realized by sea-going transportation. Development of a highway and the railway system in Yunnan province as well as the development of the transport infrastructure in the other bordering provinces including Guizhou and Sichuan is currently under development. More and more cargos will thus be transported to the sub-region via Yunnan province, which will promote the development of the navigation sector. As matter of fact, there have already been significant changes in the past fifteen years. In 1990, only 80 tons cargo was exported to Mekong River Basin countries from China through the Mekong River. By the end of last year, the total volume of waterway transport exceeded 600,000 Tons. This rapid increase reflects the ever-increasing transport potential in the region.

At present day, container transport between China and Thailand is being kicked off. With an increase in cross-border, the advantages of using waterways for transportation will become more obvious. In addition, in the Upper-Mekong region, the cooperation regime concerning waterway development among four countries has already come into being (JCCCN), which will set an example for the cooperation of other transport modes. The cooperation mechanism related to border-crossing highway transport among six countries is currently under negotiation. There are various problems in terms of policies, loans,

insurance, environment and checking fee, which have not yet been solved. The adoption of JCCCN provides some experience for them.

In the near future, the integrated transport network within the Sub-region will include transport modes from north to south (Mekong River, Kunming-Bangkok highway), and across the peninsula from east to west (highway from Jinghong, China, to Taunggyi, Myanmar; highway from Dong Ha, Vietnam to the Mawarmyine, Myanmar, and highway from Vinhthe in Vietnam to Vientiane). In the following 2 years, the north-south routes will be formed, and in the following 5 to 10 years, both the longitudinally and latitudinally-orientation routes will come into being. When this occurs, transport conditions within the Mekong Basin will be greatly improved, and it is sure that waterways will play a central role in this development.

An Environmental Friendly Transport Mode

The upper section of Mekong River passes through mountainous areas with sparse populations, luxuriant vegetation, and one of the richest in the world in terms of biological diversity. In comparison with the construction of highways and railways, the development of navigation is sure to pose faint negative impacts on the surrounding environment, and the affected area is limited. This is due to the following reasons. First, the construction of the navigation facilities is implemented in a limited geological scope, the normal training methods of rivers, generally includes dredging, retaining walls, and using a certain amount of explosives to deepen channels. These methods have less negative effects on forests, wetlands, grasslands and animals, compared to the construction of highways and railways which excavated a large amount of earth, claim cultivatable fields, destroy forests and so on.

Meanwhile, during the construction period, measures for protecting the environment are always adopted. The noise and poisonous gases that result from construction are reduced to minimal levels. Therefore it is with the goal of protecting the natural environment that river net transport should be developed. Plus, the energy consumed by a waterborne transport carrier in one km is around 12% less than that consumed by a highway carrier to move the same weight of freight, and the amount of exhaust emissions (CO₂) of waterway transporters in the same distance to move the same cargo is roughly 25% less than that caused by highway transporters.

Pending Issues and Recommendations

Issues Concerning Environment and Cross Border Crime

There is no denying that every coin has two sides, and people can not turn an blind eye to the problems caused by the development of navigation, among which the environmental problem may draw most attention from people. Of most concern is wastewater discharge from cabins, oil discharge from the engine room cleaning, and oil spills from tanks that transport oil along the river. Once the accident happens, oil spills would cause monstrous pollution in the water, and the down streaming countries would be the direct victims. If this were to occur, the international arbitration and compensation concerning pollution will become very complicated.

Moreover, the waves caused by speed vessels will lead to the collapse of earthy banks, which would is a serious problem for Laos and Thailand because the banks of the Mekong River, which supposedly marks the boundary between the two countries, are not yet fixed. In addition, the erosion of Riverbanks will pose a threat to the stability of settlements on both sides of the river, including houses and cultivatable fields. Furthermore, the improvement of navigation could facilitate illegal timber dealing, hunting and other crimes. Vegetation on the both sides of the river is very lush and stores rich timber resources, but these are located in areas that are remote and relatively inaccessible to people. All the riparian countries display weakness in terms of policing and controlling cross border crimes such as illegal hunting, drug dealing, logging. The improvement of the Mekong River's waterway for transportation could indeed nourish trading of illegal goods. For this reason, the authorities of riparian countries should strengthen their cooperation and jointly crack down on border crossing crimes.

Insufficient communication between upstream and downstream countries on the navigation issue and the lack of investment for waterway improvements

A cooperation regime has been established among the down stream countries of Thailand, Laos, Cambodia, and Vietnam in early 1990. In the past years, these countries have accumulated rich experiences in navigation cooperation. Navigation is an important sector for these countries. The total waterborne volume in the Mekong delta is over 200

millions Tons. Compared with upstream countries, the water way transport is more developed. Therefore, upstream countries could learn a lot from downstream countries in terms of cooperation mechanisms and technology. The best way to realize this is to strengthen communication between upstream and downstream countries, since making the whole of the Mekong River Basin serve the interests of all basin countries is a common goal shared by people in the region. Unfortunately, at the present day, riparian countries' governments have not yet attributed enough importance to the development of navigation, mainly because of a deficiency of funds.

As mentioned above, most riparian countries are poor, and their governments' financial capacity is very limited. Governments want to invest in the sectors that will provide the most economic benefits in the shortest amount of time. However, the economic benefits derived from navigation is overwhelmed by the social benefit given rise by it, so it is no wonder that the governments are unwilling to invest more in this sector.

Accordingly, how to help governments to get access to the capital needed to develop navigation is the problem we all face. The ADB is a common channel for obtaining loans. Governments could directly use the loan or TA from the ADB to improve their waterways for navigation. Another effective way through foreign direct investment, which also helps mitigate the economic burden of poor countries. In return, poorer countries should develop some favorable transport policies to the investors. But this does not mean the sovereignty of countries should yield to border crossing navigation.

The Development of Waterway Transport Have Not Yet Obtain Extensive Understanding from People, It Is Still an Apple of Discord

It cannot be denied that downstream countries hold an alert and sensitive attitude towards any plans for development upstream of the river. Downstream countries often fear that upstream developments could cause flooding, sand silting, reduction of flows of water, depletion of fish, etc. But development upstream is an inevitable fact and cannot be stopped. The crux problem is *how to develop*. No doubt, establishing mutual trust is important. For example, downstream and upstream countries could join hands together to legislate the common technological standards concerning navigation development, which

will pave a foundation for future navigation development of the whole river. Among all forms of communication, holding talks between governments is essential. Meanwhile, governments have the responsibility of transferring the right message to their people, and of making them understand the importance of joint development. After all, the Mekong River is the only mother river for all of us.

Let us join hands together!