

# **Royal University of Law and Economics**

# Final report on

# THE BENEFITS OF MEKONG RIVER TO SOUTHEAST ASIA

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#### **Abstract**

Mekong is the heart and breath to million people in Southeast Asia, it not only for living people but give plenty of benefits to Mekong's countries. For local living, it gives many sources for living such as fresh food, water, and family business. People who live around the river mostly live with healthy life because they cover by nature and fresh air. Moreover, they live with a harmony resource; their kind heart and friendly become the best traditional in generations. For economy, Mekong River is the blood life for Mekong countries to produce rice and fish in million dollars every year. The connection between countries were go well, and people connection also give a lot of advantages to each country by education and tourism ways. Later on, we saw there are many projects that created in order to make their economy growth and, export their goods to the world's market such as GMS, ACMECS, CII. Because of this cooperation, investment and trading make their GDP growth faster from year by year. In order to attract foreign investment, each country in Mekong River started to change their international policy to be easy to understand and deal for the investor.

This dissertation will concentrate in these recent decades, how local people live, how they support their family, and how they use the natural resources from the Mekong River. Moreover, we will examine on how the external countries started to look at Mekong's countries and make a different of agreement to them such as India, Korea, Japan, the US and by exchange products which mean there are many exports and import products, the policy and how the Mekong river's countries play role in the international. Why Mekong's countries keep developing and increasing their economy step by step regularly, the reason they make a formal diplomatic cooperation way to trade to many organizations include WTO and ASEAN.

Keywords: Benefit, Mekong River, Southeast Asia.

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#### LIST OF ABBREVIATION

AIFP: Agriculture, Irrigation and Forestry Program

DS: The Basin Development Strategy

BTA: Bilateral Trade Agreement

CBT: Community-based tourism

CCP: Chinese Communist Party

CII: Confederation of Indian Industry

DFC: Development Finance Corporation

DWT: Deadweight

GMS: The Greater Mekong Sub-region

GNI: Gross National Income

HDS: Hydropower Development Strategy

IUNC: International Union for Conservation of Nature

IWRM: Integrated Water Resources Management

JC: The Joint Committee

LDC: The Least Developed Country

LMC: Lancang-Mekong Cooperation

MRB: Mekong River Basin

MRC: Mekong River Commission

NMC: National Mekong Committees

PDG: Preliminary Design Guidance

SP: Strategic Plan

TEU: The twenty-foot equivalent units

WTTC: The World Travel & Tourism Council

# **Chapter 1: Introduction**

#### 1. General Background

Mekong River has a long story because it existed thousand years ago. Mekong river is one of the longest rivers in the world, and the seventh longest in Asia which had estimated length 4909 kilometers with the area of 795,000 km². It flows from Tibetan a cross six countries, China, Laos, Thailand, Cambodia, and Vietnam. The average mean discharge for the Greater Mekong Basin is about 460 km³ of water annually, making it 10th in water volume in the world. Approximately 60-65 million people live in the Lower Mekong Basin¹. There are thousands of natures. For example, 20,000 plant species, 430 mammal, 1,200 bird, 800 reptile and amphibian, and 850 fish species.². with the great of waterway, it plays an important role in cultural and economic for the millions of people who live along the river. The waterway and seasonal changes, it become a tradition for domestic people fishing and planting, rice vegetable and other domestic products. In addition, the view of the nature along the river really attracts for holiday center. The Mekong River devised into two parts:

The upper Mekong basin have three important areas in China which called, the Tibetan Plateau or three reverse resource, Three Parallel Rivers Area, and Lancang Basin. We go to southern Quinhai province first, estimated 316km² flow into the headwater of the Mekong in the high Tibetan Plateau which originates in China called Lancang. The area begins in the Jifu mountain that fill up by melting snow from the Himalayas; it drains cross Quinhai around 450 km and the Tibetan Autonomous Zone. The second one is the

<sup>&</sup>lt;sup>1</sup> Open Development Mekon, "The Mekong." Open Development Mekong, Open Development Mekong, 3 Mar. 2020, https://opendevelopmentmekong.net/topics/the-mekong/.

three-parallel reverse; the three parallel reverse is drained by the Mekong, it protected through area in Yunnan province. The three parallel reverses devised into three part which are, the Mekong / Lankeang, the Saneun / N and Yangyang rivers. Consisting of eight geographical clusters, this area forms a 1.7-million-hectare UNESCO heritage site. Here, the river runs through a deep ravine, with no tributaries joining it. 3 next is the Lancang basin, the Lancang bain in the lower Yunnan is the place that drains water from, which transitions from steep gradients to mid and lowland plains, broadening as it goes. Overall, the Upper Basin catchment is long and narrow, characterized by steep inclines. This is advantageous for the development of hydroelectric dams, which capture the power generated by water falling through steep gradients.

The lower Mekong River (LMB) estimated 630000km² in area which started between china's border with Myanmar to the south china sea in the southern Vietnam. Beside water supplying in this area, it is an important place to maintain the Mekong River's sensitive ecology and ecosystem service underlying the water and food security as well. The LMB's forest is a necessary place for surface-water, ground water, and sediment. In particular, when water flows through the forest, organic matter from the forest floor is also carried to the flood plains, helping to replenish soil fertility. The LMB's forests are also host to an astonishing range of biodiversity. 5the LMB devised into four special parts. The first part called the Northern highlands which connect between the three northern such as Myanmar, Thailand, and Laos. This area has a high potential on hydropower development. The second is the lowly plain called the Khorat plateau. This area also one of the driest of the LMB. This is a low-lying plain, mostly within northeastern Thailand (Isaan) and covering about one third of the country. Major

 $<sup>^3</sup>$  ibid.

⁴ibid.

<sup>&</sup>lt;sup>5</sup> ibid.

tributaries are the Songkhram and Mun rivers on the right bank, and the Nam Ca Dinh, Se Bang Fai, and Se Bang Hiang Rivers on the left bank. The third one is the Tonle Sap basin. Started from the southern Laos to the north and central Cambodia and the 35 basins. This area flows from the three main part which are Se Kong, Se San, Sre Pok rivers and the Tonle Sap great lake, continue flowing into the Mekong. Last but not least is the Mekong Delta. For this area it begins from the Phnom Penh Cambodia where the Bassac River flows depart from the mainstream Mekong. Together, the two rivers fan into a 62,520 km² alluvial plain covering southern Vietnam from just north of Ho Chi Minh City. It continue to flows in many parts in Vietnam; it ends up by flows enter into south China sea.

#### 1.1. Problem formation

The Mekong River is essentially resources for Many countries in the southeast Asia. It supports millions of People along the river. Green plants help people healthier; fresh food and vegetable are suitable for Asian people while Vegetable and rice was supported by water supplement from the river. Fish is full of protein for people health. Moreover, the environment of Mekong River is attractive for tourism sectors. In these few decades, the Mekong River face a lot of problem and confliction between countries border include surface-water and ground water, so they try to find solution and fight for their interest by limitation of taking any advantages activities in the Mekong River.

However, The Mekong regions is the key development for southeast Asia because it not supports people along the river only but it become more useful to attract international investment. The word of "Developed country" become an excuse for southeast Asia to find any way to their GDP growth by taking the external countries

<sup>&</sup>lt;sup>6</sup> ibid.

<sup>&</sup>lt;sup>7</sup> ibid.

involvement. They compete with each other by making many projects to receive benefits from Mekong regions. In the same, they also use diplomatic and international policy competition by making bilateral trade agreement with each other and the international Organizations. In addition, they try to keep culture and local traditional as much as possible as well.

#### 1.2. Research question

Main research questions:

- What are the most significant benefits from the river to the countries and the groups of people who depend on it?
- What reasons that some specific head of the Southeast Asia program work in the Mekong Region?

**Sub-questions:** 

- What are the sectors benefits in economy of Mekong regions?
- What the purposes are of establish the MRC?
- How the Mekong region improve their securities and politics in order to attract the external players?

### 1.3. Research objective

The main purpose of this research aims to explain the general benefits of the Mekong River to southeast Asia. Similarly, this final report will examine on how many sectors that give advantages to the Mekong region from Mekong River. Moreover, this research will focus more on the culture, people livelihood, and the international roles play of the Mekong regions connection to the world. Finally, this research is going to concentrate on the international policy, the government of each country is going to deal with external players, and how they are going to attract the international investment and trade agreement.

## **1.4.** Significance of research

This final report provides a general understanding about the benefits of the Mekong River to southeast Asia. Similarly, this dissertation focus on the economy in the Mekong regions such as trade, tourism, and hydropower. Moreover, the traditional and people ethic along the Mekong River also had concentrated by this final report. Finally, we will describe more about the MRC include history, vision, and its structure, in order to provide more basic acknowledgement.

# 1.5. Scope and limitation

In scope of this research only provide a general of essential benefits of the Mekong River to the Mekong's countries. We focus on three main parts of benefits. First, Literature review which focus on the genius ideas from scholars and people related in Mekong River occupation. Second, the benefits of economy in the Mekong region which concentrate any sectors that the Mekong River can provide a limitation benefits to local people and government; the cultural which is important for every country because it can identify of ethic group and the developing local destination. Last but not least, we focus on the general structure of MRC and limitation of external player's involvement which based on limit references from the credible international websites and other ministry websites.

# 1.6. Research Methodology

This thesis was support by various sources in order to give a general acknowledge related to benefits from the Mekong River to Southeast Asia. By these evidences, we saw that many countries in the Southeast Asia become more and more developed because of the various sources from both of surface-water and ground water from the Mekong River. According to plenty of sources, we believe this thesis could bring more quality and information for people in anyway of using.

1.7. Structure of research

This final report is going to devise into four parts which are Introduction, body,

and conclusion and recommendation.

**Introduction:** 

The introduction is going to give a general view of the Mekong River that attract

an interest from the audience. Chapter 1 consider as an introduction which follows

through many important parts such as background history, research problem, research

question, research objective, significance of research, scope and limitation, research

methodology, and structure of research.

**Body**:

Chapter 2: Literature Review

Chapter 3: Mekong River in economy

Chapter 4: the role of the Mekong River Commission

Chapter 5: the involvement of external players

**Conclusion and recommendation:** 

This last part will summery all what we got so far. In the other hand we will give a

recommendation and response to the main research question.

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## **Chapter 2: Literature Review**

# 2.1. The fact about the Mekong River

The Mekong River is the precious river to many countries in Southeast Asia. in fact, the Mekong River has a different name and it meaning. In China, it is known as the Lancang Jiang, meaning 'turbulent river'. The Thai and the Lao refer to it as Mae Kong or Mae Nam Kong, meaning 'mother water'. In the delta, where the river splits into multiple branches, the Vietnamese refer to it as Cuu Long, meaning 'nine dragons. The Mekong is usually considered the world's 12th longest river at 4,350 km. But other researchers claim it is longer (4,909 km) which would make it the eighth longest river in the world. The Mekong rises in the Himalayas in China, in an area called the 'three-rivers area'. The other two rivers that rise here are the Yangtze (6,300 km) and Yellow (5,464 km) rivers. In terms of discharge, the Mekong is the 14th largest river in the world. It discharges 475 km³ of water into the South China Sea every year – that's about 25 billion swimming pools. The Lao Peoples' Democratic Republic (Lao PDR) contributes some 35% of this water, followed by Thailand and Cambodia (18% each), China (16%), Vietnam (11%) and Myanmar (2%).9

Approximately 75% of the Mekong's annual flow falls with the monsoon between July and October. This huge surge of water is referred to as the 'flood pulse', and causes extensive flooding throughout the system. As the water races down through the system, it eventually gets to the Mekong Delta, when it begins to back up because there are not enough tributaries through the delta. This causes the level of the river to rise, and forces

<sup>&</sup>lt;sup>8</sup> CGIAR, "Mekong River Basin." WLE Mekong, CGIAR. Accessed August 7, 2021, https://wle-mekong.cgiar.org/changes/where-we-work/mekong-river-basin/.

<sup>9</sup> ibid.

its way northwards up the Tone River and into the Tonle Sap Great Lake. When the monsoon ends, and the river level drops once more, the Tonle River reverses its flow and begins to head southwards again, draining the Great Lake. The Tonle Sap's area can grow from just 2,500 km² before the rains, to 25,000 km² during the rains. <sup>10</sup> The river's level rises as a result, forcing it northwards up the Tone River and into the Tonle Sap Great Lake. When the monsoon has passed and the river level has dropped, the Tonle River reverses its flow and begins to drain the Great Lake anew. The Tonle Sap can expand from 2,500 km² before the rains to 25,000 km² after the rains. The Mekong's drainage basin covers 795,000 km². Most of the territories of Lao PDR and Cambodia fall within the basin. A quarter (25%) of the basin is located in Lao PDR. 23% is located in Thailand, 21% in China, 20% in Cambodia, 8% in Vietnam, and the remaining 3% is in Myanmar. <sup>11</sup>The river lowers 4,500 meters from its source in China to the border of the Lao People's Democratic Republic. The river runs down rather narrow canyons in this location. This massive drop through small basins makes this section of the river ideal for hydropower generation.

The Mekong basin is the second most diverse area on earth, after the Amazon. The Greater Mekong Sub-region (i.e., the area covered by all six Mekong countries) include 20,000 plant species, 430 mammals, 1,200 birds, 800 reptiles and amphibians and an estimated 850 fish species. In 2009, 145 new species were described from the Mekong Region, comprising 29 fish species previously unknown to science, two new bird species, ten reptiles, five mammals, 96 plants and six new amphibians. The Mekong Region contains 16 WWF Global 200 ecoregions, the greatest concentration of ecoregions in mainland Asia. No other river is home to so many species of very large fish. The biggest

<sup>&</sup>lt;sup>10</sup> ibid.

<sup>&</sup>lt;sup>11</sup> ibid.

<sup>&</sup>lt;sup>12</sup> ibid.

include the giant river carp, which can grow up to 1.5 meters and weigh 70 kilograms; the Mekong Freshwater Stingray, which can have a wingspan of up to 4.3 meters, the Giant Pangasius, Siamese Giant Carp and the Mekong Giant Catfish, all three of which can grow up to about 3 metres in length and weigh 300 kilograms. One species of freshwater dolphin, the Irrawaddy Dolphin, was once common in the whole of the Lower Mekong but is now very rare. The Mekong Basin contains the world's largest inland fishery. It yields some 2 million metric tonnes (mt) of fish a year, and an additional 500,000 mt of so-called 'other aquatic animals' (frogs, snakes, snails, aquatic insects etc). These figures exclude aquaculture, and refer only to what is known as 'the wild capture fishery'. An estimated 40 million rural people are involved in the wild capture fishery – two-thirds of the entire basin rural population. 54 million hectares of forest in the Lower Mekong Basin. The Lower Mekong Basin encompasses the basin outside of China. Forest covers 43% the land area of this basin. Between 1990 and 2005, 1.55 million hectares of forest was cleared. In Viet Nam, forest cover has been increasing at 2% (some 5 million hectares). During the same period, Thailand lost just less than 1.5 million hectares. Overall rates of deforestation were highest in Laos and Cambodia, which lost about 1 and 2.5 million hectares respectively. In Cambodia, the rate of forest loss increased substantially after 2000.<sup>13</sup>

# 2.2. Evaluation on the Mekong River

SUMERNET interviewed the MRC's Chief Strategy & Partnership Officer, Dr Anoulak Kittikhoun, for his views on the MRC's role in the Mekong River Basin and how to improve transboundary dialogue and cooperation in the future. In the interview with MRC's Chief Strategy Officer as an intergovernmental facilitating and advisory

<sup>&</sup>lt;sup>13</sup> *ibid*.

body, the Mekong River Commission (MRC) works directly with the governments of Cambodia, Lao PDR, Thailand and Vietnam to jointly manage the shared water resources and the sustainable development of the Mekong River. But recently, the role of the MRC to protect the Mekong River and promote inter-basin cooperation has come under increasing scrutiny. He shared his view related to the Mekong River as bellow:

"In my opinion, the key message is that the overall economic conditions in the basin are positive. The countries continue to display solid economic growth along with declining poverty, improved living conditions and increasing productivity...Definitely. The Mekong Basin is fortunate to have the 1995 Mekong Agreement. Without this agreement, and the MRC and its procedures for consultation, it would not be possible for the major mainstream dam projects of a sovereign country to be openly consulted. Thousands of pages of project documents would never have become public. The countries, the public and stakeholders would never have had a chance to participate and openly raise their voices and have their views recorded as part of a legitimate consultation process, assessments and studies of the private developers would never have been reviewed and independent opinions provided. The dam designs and mitigation measures to avoid and mitigate impacts would have never been considered systemically. If you look at river basins in Africa or South Asia, or even Europe in the past, these things rarely happen."

"The MRC is still the only treaty-based international river basin organization with a clear mandate to promote and coordinate the sustainable development and management of the Mekong River Basin. The MRC has an extensive suite of strategies, guidelines,

Daniel, Rajesh, MRC's role in transboundary dialogue in the Mekong Basin: An interview with MRC's Chief Strategy Officer. Other., *SUMERNET*. SUMERNET, November 28, 2019. https://www.sumernet.org/story/mrcs-role-in-the-improvement-of-transboundary-dialogue-and-cooperation-in-the-mekong-river-basin-the-interview-with-mrcs-chief-s.

procedures, and knowledge to guide the riparian countries. It has been in existence for almost 25 years, building on cooperation lasting over 60 years. The MRC is here to stay and our member countries have agreed to put more financial resources into the MRC year after year. International partners are fully committed to the MRC. The LMC is a good initiative and we think it would complement the work of the MRC when it comes to bringing together all the six riparian countries for dialogue towards developing and managing the Lancang-Mekong River. The LMC is much more than the Mekong River and the cooperation extends to many areas. As a sign of cooperation, the MRC Secretariat now participates in the LMC Joint Working Group on water resources and is signing an MOU with the LMC Water Center. The MRC is also reinvigorating its data, information, modelling, forecasting and communication systems in order to response to the needs of riparian countries and the changes in the Mekong Basin." <sup>15</sup>

Brian Eyler is the Director of the Stimson Center's Southeast Asia program. Eyler is an expert on transboundary issues in the Mekong region and specializes in China's economic cooperation with Southeast Asia. He has spent more than fifteen years living and working in China and over the last ten years has conducted extensive research with stakeholders in the Mekong region, leading numerous study tours through China and mainland Southeast Asia. Before coming to the Stimson Center, he served as the Director of the IES Kunming Center at Yunnan University. He holds a MA from the University of California, San Diego and a BA from Bucknell University. Brian is the co-founder of the influential website EastBYSoutheast.com. His first book, *The Last Days of the Mighty Mekong*, was be published by Zed Books in 2019.

<sup>&</sup>lt;sup>15</sup> Ibid.

Eyler RECENTLY sat down with CAS web editor Jessica Chandras to answer some questions about the Mekong River and its future related to the work Eyler does on policy and environmental matters in the region. According to the CAS he said that,

"When I started researching the Mekong there were no mainstream dams built on the Lower Mekong and only a few of the dams had been built on the upstream portions of China's Mekong. I watched China's dam development happen very rapidly as well as economic development progress in a very invasive way. Investment to promote GDP growth happened in a very invasive way in China's Yunnan province. So that helped inform me of what was coming down the pike in Southeast Asia and a lot of that investment-led growth has certainly unfolded through numerous projects and their related threats to the lower Mekong basin. I've observed many resettlement communities that have been impacted by hydropower projects. These communities have been unable to recuperate their previous level of livelihood and wellbeing. There will be many more groups like them whose livelihoods will be altered in the future. At the same time, working on this issue set over a period of time has given me a perspective on how the market is at play for power sector development. Now in the lower Mekong basin, where ten years ago scale solar projects could not be built in any of the Mekong countries, the renewable energy sector is ripe for investment. Certain countries are moving faster than others. For example, Thailand is faster that any country in the region, and Vietnam is close behind. Laos and Cambodia now have an opportunity to leapfrog over these more traditionally managed power sectors in Thailand and Vietnam. They (Laos and Cambodia) can reap big sustainability gains by choosing to build more solar than hydropower or rethinking the way that hydropower can feed their national energy mixes. We're at a time now where the technology is available and the investment landscape can be built to chart a smarter course for the Mekong Basin but, like I said, the window for opportunity is

very small. Opportunities to shift away from the current development trajectory exist, and without change the Mekong Basin is on still on course for a rapid loss of various natural resource bases such as fisheries loss and agricultural impacts."<sup>16</sup>

Marc Goichot led the work of the WWF Greater Mekong program, in the Mekong region. An interview with Marc Goichot, who has worked for the past 13 years with the WWF Greater Mekong programmed on integrated river basin management. The interview discusses the role of the Mekong River Commission and Lancang-Mekong Cooperation in the water governance of the region; as well as the links between economic development and ecosystem functions of the basin.

Marc has spent the past 19 years working in Vietnam, Cambodia, Thailand and the Lao PDR, as a technical and policy adviser. He studied geography, integrated river basin management, and geomorphology. His first worked advising the Thua Thien Hue Provincial People's Committee and the IUCN on the Huong River Basin Management Plan and the management of the coastal lagoon system of Thua Thien Hue Province. Then we worked as an aide with the International Federation of Red Cross on flood mitigation and preparedness in the Mekong delta. He has been in his current position with WWF for the past 13 years, working on the Greater Mekong Program on integrated river basin management. Marc is a member of the WWF Global Reference Group on Water Security, promoting responsible water infrastructure and securing sustainable flows to safeguard hydrological regimes that freshwater flora and fauna rely on while meeting water demands for basic needs, social and economic development. In the interview he claimed that,

<sup>&</sup>lt;sup>16</sup> CAS, 2019.9: The Future of the Mekong River: An Interview with Brian Eyler. Other., CAS, CAS, April 23, 2019.

https://critical asian studies. org/commentary/2019/4/23/brian-eyler-the-future-of-the-mekong-river.

"The greater Mekong comprises five large rivers: The Red River, the Mekong River, the Chao Phraya, the Salween and the Ayeyarwady. We work mainly on the Mekong but also on the Ayeyarwady. The Mekong River is shared by six countries and the river is increasingly being developed and used for large hydropower projects and for sand extraction for construction, and more intensively fished. WWF is a conservation organization and our mandate here is to conserve river biodiversity and the use of the river by people, through the natural resources that the river provides. Unfortunately, the Mekong now is under a lot of stress as a result of the changes in recent years. It is no longer a pristine large tropical river. It is important to acknowledge that stress and the way the river is responding to the level of change. There are already fewer options to conserve what is left of this river, and we need to lift our game and find solutions very quickly. This river is special in the sense that it has very high fish biodiversity and general aquatic biodiversity. It ranks second or third in the world in terms of the total biodiversity for fish, behind the Amazon and Congo basins. Per unit area per length of river, the Mekong has possibly the world's highest fish diversity and the Mekong also has the most productive inland fisheries in the world. Fisheries is a very important industry because it provides the people living in river communities with affordable and high-quality protein. In short, the Mekong is a very important river worldwide and a fascinating place to work. I've been working in this region for 20 years and I am still learning every day. We do have a real opportunity to manage the river properly."<sup>17</sup>

12-episode documentary series "Ethnicity" was a movie which directed by Kamol Homklin. This movie was claimted that, the harmony life of Mekong countries are region

<sup>17</sup> Goichot, Marc. Marc Goichot interview: the role of the Mekong River in the economy. Other, AWP, AWP, June 21, 2018.

https://waterpartnership.org.au/marc-goichot-interview-role-of-the-mekong-river-in-the-economy-2/#1564394328180-c9089188-640c.

practice, nature, and culture, especially its "diverse ethnic way of life". these reasons, promote year-round tourism, which will generate and distribute income to all groups of people in compliance with the National Economic and Social Development Plan. moreover, it can maintain the culture and traditional while keeping practice their living behavior. Furthermore, "Ethnicity" can identify the nationality of each country along the Mekong River, and it will take everyone to witness the Mekong civilization, which includes nine ethnicities and two nationalities. Instead of "home" or "village," the word "community" was used to define the term "ethnicity. "It will show the community's connection with society, culture, and natural resources in a clear light. Another component is "nationality," which refers to persons who belong to the same ethnic group and share comparable physical characteristics. People of the same "ethnicity" speak the same language and have similar traditions, cultures, and customs; it could be a group who have shared ancestors.

## **Chapter 3:** Mekong River in economy and cultural

#### 3.1. benefits Economies to Mekong's countries

The Mekong River is very important to southeast Asia because it connects between countries through water resources, planning, and development; it inspires countries to create the resilient and prosperous economic to all country's involvement. A huge of advantages were given to million people by the Mekong River to many sectors and a variety of ways. Moreover, the Mekong River give a harmony economy to millions of people; it strengthens the relationships between countries as well. The MRC's work in navigation derives from the Mekong Agreement's article 9 on freedom of navigation. Specifically, the MRC supports countries through: Basin-wide strategies and plans as the Master Plan on Waterborne Transport that promote navigation, connectivity and waterborne trade, MRC Procedures including the Prior Consultation process that ensures all mainstream projects have good navigation locks that facilitates freedom of navigation, Agreements between countries that facilitate rules-based waterborne transport, Guidelines and tools that facilitate navigation safety, Studies and assessments of benefits and costs of navigation as part of larger studies.<sup>18</sup>

According to the Open Mekong Development stated that the combined total GDP for the Lower Mekong in 2017 is estimated to be US\$757 billion, according to the International Monetary Fund.<sup>19</sup> Estimated GDP per capita figures for 2017 range from US\$1326 and US\$1330 for Cambodia and Myanmar respectively, to US\$2169 for Laos,

<sup>&</sup>lt;sup>18</sup>MRC, Mekong River Commission, "Navigation." Mekong River Commission (MRC), www.mrcmekong.org/our-work/topics/navigation/.

<sup>&</sup>lt;sup>19</sup> . International Monetary Fund, World Economic Outlook, April 2017, http://www.imf.org/external/pubs/ft/weo/2017/01/weodata/download.aspx.

US\$2286 for Vietnam and US\$6357 for Thailand.<sup>20</sup> For the 2017 fiscal year, the World Bank categorized Cambodia, Laos, Myanmar and Vietnam as "lower-middle-income" economies and Thailand as an "upper-middle-income" economy. These categories use gross national income (GNI) per capita to group countries into four different levels.<sup>21</sup> The rang of GDP of the lower Mekong countries are based on the agriculture, nature resource from the surface-water and ground water, and export products. The least developed of the five Lower Mekong countries have the highest rates of GDP growth: Cambodia's economy is forecast to grow by 6.8 percent in 2017, Laos by 6.7 percent, Myanmar by 6.4 percent, and Vietnam by 6.3 percent and Thailand by 3.5 percent.<sup>22</sup>

#### **3.1.1** Trade

The main cargo moved between Thailand's Chiang Saen and China is mostly refined petroleum products from Bangkok, accounting for 32% of throughput. The remaining 68 percent is delivered by road. Petroleum, general cargo, cement, steel, coal, fertilizers, and farm products are among the cargoes moved between Vietnam and Cambodia. The rocky outcrops in the higher reaches of the river must be removed or relocated in order to improve the waterway. Improvements are expected to make the river navigable for much larger cargo ships, boosting both regional and international trade.

In 2014, the freight throughput from Phnom Penh to Vietnam was 140,000 twenty-foot equivalent units (TEU). the thousands of kilometers of international boundaries in the region are an important source of livelihood for those living along the borders. The border trade across "Carried out largely by small merchants and itinerant traders, such trade includes goods as diverse as vegetables, fruit, fish and fish products, livestock, rice,

<sup>&</sup>lt;sup>20</sup> *Ibid*.

The World Bank, "Country and Lending Groups." https://datahelpdesk.worldbank.org/knowledgebase/articles/906519.

<sup>&</sup>lt;sup>22</sup> The World Bank, "World Bank East Asia and Pacific Economic Update, October 2017." Open Knowledge Repository, Washington, DC: World Bank, 3 Oct. 2017, openknowledge.worldbank, http://hdl.handle.net/10986/28396.

fertilizers and pesticides, processed foodstuffs, gemstones, timber, forest products, animals and animal parts."<sup>23</sup> Deep-looking to plenty of money of trade, mostly come from bilateral projects of trading and investment agreement which come a head of government. It also came from ASEAN (Association of Southeast Asian Nations) cooperation agreement, GMS (the Greater Mekong Sub-region), ACMECS (Ayeyawadi-Chao Phraya-Mekong Economic Strategy), and WTO.

BTA (bilateral trade agreement) between Vietnam and the US came into force on December 10,2001. After the BTA signed, the US take an action suddenly by take many Vietnam's goods and companies access to the US market. Later on, we saw that "Among other things, this means Vietnam's products are now assessed much lower tariffs — dropping from an average of 40 percent to an average of three percent — when they enter the U.S."<sup>24</sup>

As a result, Thailand started to interested in this agreement; they began to negotiate with the US and Australia as well. The Indian companies also jumped onto the regional trade fray. Furthermore, the India intended to share trade with the GMS, the CII (Confederation of Indian Industry) created a Mekong Development Forum in November 2005; joined hands with the ADB (Asian Development Bank). According to this CII, India can trade and investment opportunity to many sectors such as transport, energy, infrastructure, and tourism; around US \$ 195.4 billion got from volume of trade in (FY 2003-2004 alone).

<sup>&</sup>lt;sup>23</sup>Guttal Shalmali, "An Investor's Paradise: Trade in the Mekong Region." Focus on the Global South, Admin, 22 Jan. 2006, https://focusweb.org/an-investors-paradise-trade-in-the-mekong-region/.

<sup>&</sup>lt;sup>24</sup> U.S Embassy & Consulate in Vietnam, "Bilateral Trade Agreement." U.S. Embassy & Consulate in Vietnam, 30 Jan. 2020, https://vn.usembassy.gov/our-relationship/policy-history/bilateral-trade-agreement/.

The WTO also have the trade liberalization with the essential countries in the Mekong region; Thailand is the old member of WTO in the Mekong region, then China and Cambodia, Vietnam and Laos the latest. Despite its growing strength as a global trade power, China has thus far played a relatively low-key role within the WTO, its most visible action being hosting the sixth Ministerial Conference in December, 2005. Cambodia, as a Least Developed Country (LDC) is not required from making further commitments for at least another five years. However, both Cambodia and China have already made significant liberalization commitments when they became WTO members. For example, China and Cambodia after agreed to import Banana, currently they have an agreement importing Mangos from Cambodia to China as well. Although majority of the Mekong region countries were not presently in a position to alter the current course of WTO negotiations, they were certainly expected to operate by the rules and commitments written into a new WTO trade deal. LDCs (which include Cambodia) and countries in the process of accession (Lao PDR and Vietnam) are constrained from passing or implementing national regulations that contradict their abilities to meet WTO commitments in the future at that time.

#### 3.1.2. Water supply

The water cycle, which is fundamental to the generation of freshwater, is referred to as Freshwater Sources. At its most basic level, the water cycle begins with water evaporating from the planet's surface, collecting in clouds, and then falling back to the earth as rain or snow. This freshwater collects in rivers and lakes before being absorbed by natural aquifers, or water-collecting subsurface layers of rock. Access is complicated by the fact that the water is a transboundary resource that spans China, Myanmar, Thailand, Lao PDR, Cambodia, and Vietnam's six national borders. Due to the fact that each country has its own agenda, competition for water will intensify. Upstream countries,

such as China, gain a geographical advantage in exploiting the Mekong River's resources, while downstream countries, such as Cambodia and Vietnam, face increasing difficulties in protecting ecological functions on the river's southern end, which are critical for the river's overall flow.

The Lower Mekong Countries rely on water to survive. People living in the Mekong countries are extremely sensitive to changes in water because their economies and cultures are intricately linked to the Mekong River and are based on the production and consumption of rice and fish. This is especially true for Cambodia and southern Vietnam, which are located downstream of the Mekong River system and make up the river's delta. Even though water resource includes both of freshwater and salt water but the water resource which are water that collects on or beneath the earth's surface as part of the water cycle, are sometimes defined as water resources only. Freshwater is found in the form of surface water in rivers and lakes, as well as groundwater. The reliance on freshwater from the Mekong River by the so-called Lower Mekong Countries is enormous.

Irrigation is the most important use of the Mekong River's water resources, approximately 70% of its total. The basin's total irrigated area is around four million hectares, and irrigated areas are continuously expanding in many countries. Upstream reservoir dams may be able to support water storage during the dry season, giving the agricultural industry a boost. There are plans to extend dry season irrigated land by 50% in the next 20 years (from 1.2 to 1.8 million hectares). Furthermore, Lao PDR is planning to expand irrigated area from less than 100 000 hectares to more than 300 000 hectares, and Cambodia is also considering a major expansion of its irrigated area. The Mekong

<sup>&</sup>lt;sup>25</sup> "Key Water-Related Development Challenges in the Mekong River Basin – Brief Overview: Innovation for Water Infrastructure Development in the Mekong Region: OECD ILibrary." Key Water-Related Development Challenges in the

River serves as a waterway for both inland and transboundary (international) transportation.

The river's upstream segment is ideal for inland travel from river ports in Yunnan, China, through Lao PDR, and into Cambodia's Kompong Chnang. The river's downstream segment is navigable by both inland and sea transport which give interest in trading of produces economic activity. The Mekong Delta can accommodate larger vessels in greater numbers. It handles 78% of the annual cargo volume, and 89% of the passenger traffic on the Mekong. The upper stretch of the river between China and Cambodia is only navigable by smaller vessels carrying less than 250 tonnes. The middle stretches from Thailand to Cambodia via Lao PDR can accommodate larger vessels carrying more than 300 tonnes. <sup>26</sup>There are many plans to support includes predicting and monitoring water demand, understanding and predicting changes in water supply patterns and water levels, and monitoring and maintaining water quality in the LMB. Through the new strategic cycle, the BDS 2021-2030 and MRC SP 2021-2025, the Member Countries will see the MRC's assistance in improving irrigation structures to promote fish reproduction, such as the installation of fishway and examination of unused irrigation schemes which affect fish migration. <sup>27</sup>

#### 3.1.3Agriculture

Agriculture is an essential occupation in countries a long Mekong River; it is a cornerstone of economic growth in the Lower Mekong River Basin (LMB), which are providing livelihoods for more than 65 million people in the basin. employs 60% of the

Mekong River Basin – Brief Overview | Innovation for Water Infrastructure Development in the Mekong Region | OECD ILibrary, https://www.oecd-ilibrary.org/sites/b3463307-

en/index.html?itemId=/content/component/b3463307-en.

<sup>&</sup>lt;sup>26</sup> *Ibid*.

<sup>&</sup>lt;sup>27</sup> *Ibid*.

population in the MRB. Between 2011 and 2014, the numbers of people engaged in farming have increased in Cambodia, Thailand and Viet Nam by an average 9 percent to 6.9 million, whereas the total number of farmers in Lao PDR has appeared to decline from 238,000 to a little over 15,000.<sup>28</sup> The most important secondary occupation is farm labour which had apparently increased by almost 500 percent between 2011 and 2014 to 18.6 million. These confirm the importance of the agricultural sector in generating household income.<sup>29</sup> Agriculture in Thailand and Vietnam is intensive and diverse which guide by the government. However, agriculture in Cambodia and the Lao People's Democratic Republic is notice less developed because of the human resource and financial. More than 10 million hectares of agricultural land in the LMB is used for rice production, amounting to more than 80 percent of agricultural production. Irrigation water-use accounts for more than 70 percent of current utilization, with 12 percent of the total annual flow is diverted for agriculture in the basin.<sup>30</sup> Through crop diversification, promotion of commercial production and agro-industries, and expansion of irrigation areas, the four countries seek to enhance rice production and exports, react to food security demands, and address rural poverty.

According to the macroeconomic assessment report of the MRC Council Study, the net preserve value (NPV) of the agriculture sector LMB-wide is expected to increase by \$104 billion by 2040 from \$358 billion in 2017. <sup>31</sup>The majority of this potential is tied to expansion ambitions in Cambodia (\$67 billion), with Viet Nam (\$26 billion) following closely behind. This shows the rising importance of effective irrigation systems and

<sup>&</sup>lt;sup>28</sup>MRC, Mekong River Commission. "Agriculture and Irrigation." Mekong River Commission (MRC), www.mrcmekong.org/our-work/topics/agriculture-and-irrigation/.

<sup>&</sup>lt;sup>29</sup> Ibid.

<sup>&</sup>lt;sup>30</sup> *Ibid*.

<sup>&</sup>lt;sup>31</sup> *Ibid*.

practices in enhancing agricultural yields and productivity. According to the analysis, overall irrigation area might nearly treble by 2040, reaching 7 million hectares. However, even though those activity of agriculture brings more benefit for the Mekong countries but it still has some impact while they try to get the benefit from agriculture such as having negative impacts at multi levels of the basin. Firstly, they lead to change in water allocation for agriculture itself and for other purposes. In addition, deforestation, commercial concession plantations and mining developments contributed to changing land use will have transboundary impacts on hydrology progress and sediment transportation as well. In order to response to these effective and response to the challenging situation, the Mekong River Commission (MRC) focuses on fostering regional cooperation to accelerate the understanding and evaluation of the effects of development activities across the basin of medium- and long-term development planning by the MRC Member Countries. The MRC supports the countries through creating strategies and plan which are:

- **Basin-wide strategies** such as the Basin Development Strategy that seeks to reduce knowledge gaps and minimize risks from agriculture and water infrastructure development and improve national water resources development and management.
- **Technical guidelines** such as the guidelines for fish-friendly irrigation schemes that seek to improve fish populations through identification of fish passage barriers and improved design and construction of fish ladders attached to water structures such as dams, dikes or weirs.
  - **Studies and assessments** that support planning and decision making.

• Capacity development that helps irrigation and agriculture planners and practitioners integrate basin-wide water resources planning to national agricultural sector and address transboundary issues.<sup>32</sup>

Agriculture was not previously a key sector for the MRC. MRC's previous work centered on collecting and analyzing data to provide information for development possibilities, as well as enhancing water usage efficiency and watershed management through pilot projects developed under the Agriculture, Irrigation and Forestry Programmed (AIFP). The purpose of AIFP was supporting improving watershed management, developed standards for enhancing paddy field irrigation efficiency, improved irrigation and water-use procedures, and developed land-use monitoring systems. Improved information on irrigation modernization, including water control technologies, irrigation efficiency and productivity, flood mitigation, soil conservation and water control, and aquatic environment nurturing, helped the Member Countries as well. As a result, this project did not stay last long because it lacked a strategic coherence to inform basin-level planning and management. However, the agriculture, the MRC will support the development of guidelines for transboundary groundwater management, identification of irrigation development opportunities to support food security, including through climate smart agriculture and a transition to higher value agriculture products.<sup>33</sup> Main cargo transported between Thailand's Chiang Saen and China is mostly the refined petroleum products from Bangkok, which is 32% of the throughput. The other 68% is transported by road. The Phnom Penh cargo throughput to Viet Nam in 2014 is 140,000 twenty-foot equivalent unit (TEU). The cargo transported between Viet Nam and

<sup>&</sup>lt;sup>32</sup> *Ibid*.

<sup>&</sup>lt;sup>33</sup> *Ibid*.

Cambodia includes petroleum, general cargo, cement, steel, coal, fertilizers, and agriculture products.

Under the Basin Development Strategy (BDS) 2016-2020, of which strategic actions will be implemented through the MRC Strategic Plan (SP) 2016-2020, the MRC helped the Member Countries to:

- Reduce remaining knowledge gaps to minimize risks, including conducting study on the use of surface and groundwater, explore the potential for increased use of groundwater in agriculture, and provide guidance for sustainable groundwater use for crop production;
- Improve national water resources development and management, such as consolidating and implementing guidelines for design and operation of irrigation systems, including fish-friendly irrigation schemes; and
- Enhance information management, communications and tools, such as improvement of data, information, and knowledge management, and the irrigation database.<sup>34</sup>

#### 3.1.4. Hydropower

Hydropower is essential to the world because it show how their countries developed and have power in technology way. For example, MRB hydropower supplies are critical for all MRB countries, as they contribute 10% of total electricity consumption. Lao PDR gets virtually all of its electricity from MRB hydropower, while Cambodia gets more than a third of its electricity from the basin's hydroelectric plants. Moreover, Years ago, hydropower development in the Mekong began in Thailand and Vietnam's tributary basins, upstream of Cambodia. Hydropower development has developed in the LMB over the following century, accompanied by growing private sector investment in power

<sup>&</sup>lt;sup>34</sup> *Ibid*.

infrastructure. On the ground, 11 projects are in the works, including seven in Lao PDR, two in Cambodia, and two on the Lao-Thai borderline. In the hydropower sector, the MRC is entrusted with ensuring that the Member Countries' growing need for electric energy is satisfied without causing harm to the environment or local communities - an objective that necessitates a hydropower strategy based on best practices. In acknowledgment of the MRC's function as a river basin organization for regional cooperation on sustainable hydropower production, utilization, and management in the Mekong River Basin, the first Hydropower Development Strategy (HDS) was formulated in 2001. Various studies, guidelines, and instruments were established through the HDS to provide guidance for the MRC's role in hydropower development. The Initiative on Renewable Hydropower (ISH) was founded in 2008 to promote regional collaboration and to help Member Countries in linking hydropower management and development decisions to basin-wide Integrated Water Resources Management (IWRM) considerations. The MRC Strategic Plan (SP) 2016-2020 underlined the rising sense of urgency among stakeholders for the need to move basin development towards more optimal and sustainable outcomes that could address long-term needs, including environmental protection as well as ensuring water, food and energy security.

The MRC Strategic Plan (SP) 2016-2020 underlined the rising sense of urgency among stakeholders for the need to move basin development towards more optimal and sustainable outcomes that could address long-term needs, including environmental protection as well as ensuring water, food and energy security. <sup>35</sup>To achieve these objectives, the Member Countries decided to revise the HDS 2001 to account for important changes in the basin during the previous 18 years. The updated strategy, now

<sup>&</sup>lt;sup>35</sup>MRC, Mekong River Commission. "Hydropower." Mekong River Commission (MRC), www.mrcmekong.org/our-work/topics/hydropower/.

known as the Sustainable Hydropower Development Strategy (SHDS), also recognizes potential to expand benefits beyond national borders while reducing negative transboundary effects. The SHDS is scheduled to be completed in 2021. To ensure that the SHDS objectives are met, a set of agreed-upon strategic priorities and activities will be performed. In addition, the updated Preliminary Design Guidance (PDG) for Proposed Mainstream Dams in the LMB (2009) is being finalized to provide design guidance in the form of performance targets, design, and operating principles for impact mitigation measures in key areas reflecting the current hydropower development situation and international good practice.<sup>36</sup> The modified PDG was used to provide guidelines for hydropower environmental effect mitigation and risk management in the lower Mekong main channel and tributaries. Since there is potential for further development of hydropower in the Mekong Basin, the Basin Development Strategy (BDS) 2021-2030 and MRC SP 2021-2025, promotes the concentration of hydropower development in storage-backed cascades to: (i) increase dry season flows and power generation, (ii) provide reliable flows to downstream run-of-river hydropower facilities and improve their performance, (iii) reduce downstream flood and drought risks and enhance dry season navigation, and (iv) create opportunities to forego hydropower development in still undeveloped watersheds with high ecological value.<sup>37</sup>

### 3.1.5. Transportation

The Mekong River has been a major transportation corridor between riparian towns along its banks for thousands of years. It allows individuals to gain access to natural resources as well as social services such as schools and health care. Traditional methods of trade that linked villages continue to exist today; nevertheless, the Mekong River is

<sup>&</sup>lt;sup>36</sup> *Ibid*.

<sup>&</sup>lt;sup>37</sup> *Ibid*.

becoming increasingly important in international trade routes, connecting the six Mekong countries to each other and to the rest of the globe. The primary cargo moved between Thailand's Chiang Saen and China is generally refined petroleum products from Bangkok, providing for 32% of throughput. The cargo transported between Viet Nam and Cambodia includes petroleum, general cargo, cement, steel, coal, fertilizers, and agriculture products.<sup>38</sup>The remaining 68 percent is delivered by road. In 2014, the freight throughput from Phnom Penh to Vietnam was 140,000 twenty-foot equivalent units (TEU).

In Laos, Thailand, Cambodia, and Vietnam, the Mekong River and its tributaries provide essential transportation links. The river is navigable from Simao in Yunnan and Jinghong on the Laotian border. The river runs for 786 kilometers between Simao and Luang Prabang in Laos. Passage between Cambodia, Vietnam, Laos and Thailand is blocked by Khone Falls in Laos, one of the world's most powerful cataracts. The series of rapids and falls drops 20 meters (70 feet). The river is eight miles wide near this spot. <sup>39</sup> When peace was eventually restored in Cambodia and the rebellion in Laos became more controlled in the 1990s, the concept of using the Mekong River as the heart of a global transportation hub became a possibility. There were no bridges across the Mekong River in the early 1990s, but now there are several in Vietnam as well as between Laos and Thailand. Myanmar, Thailand, China, and Laos have agreed to open a navigation route along the Mekong River's higher reaches. These four countries agreed to enable commercial navigation across each other's boundaries under the terms of the agreement.

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<sup>&</sup>lt;sup>38</sup> *Ibid*.

<sup>&</sup>lt;sup>39</sup> Hays, Jeffrey. "MEKONG River: Its Route, History and Transport on It." Facts and Details, https://factsanddetails.com/asian/cat63/2sub6/entry-2833.html#chapter-13.

The Mekong River will be used to create an access route from southern China to the Indian Ocean.

China is currently involved in dredging upper parts of the river to make them navigable. In the dry season, 150-tons cannot navigate these sections.<sup>40</sup> This will be remedied by dredging. Dredging between Vientiane and Simao in China's Yunnan Province will make a portion of the river capable of handling 2,000-ton ships all year, with the exception of a few weeks during the dry season when water levels are quite low. The project is supported by both the Chinese and Laotian governments as a way of strengthening economic growth through increased trade. Furthermore, with thousands of visitors from China, Thailand, and Lao PDR, passenger transit along the Mekong River contributes significantly to tourism development. In Lao PDR, 1,800 passenger tourist boats are registered, whereas Cambodia and Vietnam have many large inland and seagoing vessels with a deadweight (DWT) of up to 5,000 tons. Under the Basin Development Strategy (BDS) 2016-2020, the MRC continues to stress the importance of investing in the waterborne transport sector to attract investment and realize additional regional trade potential through implementation of: (i) a Master Plan for Regional Waterborne Transport in the Mekong River Basin (Volume I and II); (ii) the Regional Action Plan for Dangerous Goods; (iii) the Agreement between Cambodia and Vietnam on Waterway transport; and (iv) navigation safety and anti-pollution rules for Lao PRD and Thailand. 41 The purpose of these project, is a short-term and long-term development programmed that aims to improve the national and international transport network by providing information on the actual situation for waterborne transport on the Mekong River.

<sup>&</sup>lt;sup>40</sup> *Ibid*.

<sup>&</sup>lt;sup>41</sup> Ibid.

#### **3.1.6.** Tourism

Cambodia: The country received 4.5 million international visitors in 2014, a 7.0% increase compared to 2013. The direct contribution of travel and tourism to the economy in 2014 was \$2.9 billion or 10.4 percent of GDP with just under one million people employed. According to the WTTC, the relative importance of tourism to the economy is ranked 83<sup>rd</sup>. International travelers travel in Phnom Penh and Siem Reap in equal numbers, totaling for 50.5 percent of all foreign visitors, with 47.4 percent crossing overland borders and 2.1 percent crossing by water. In regards of the Mekong River, Angkor Wat, a UNESCO World Heritage site, is a well-known cultural jewel in the region. It is not on the Mekong River, but is connected to it by a 100-kilometer-long channel and the Tonle Sap (Great Lake), under which the Mekong River either goes to or from depending on the season. The Mekong River passes through Cambodia, flowing from the high northern highlands of densely forested mountains to the alluvial plain where it meets Viet Nam and the vast Mekong Delta. Cambodia's river-based tourist industry is steadily expanding, although there are still numerous prospects for expansion. Phnom Penh is critical because it serves as a center for cruises to and from the Mekong Delta, Tonle Sap Lake, and Siem Reap, as well as the Mekong Discovery Trail, which runs all the way to the Lao PDR border.

Lao PDR: In 2014 the Lao PDR welcomed 4.16 million international visitors, an increase of 10.1% compared to 2013. The direct contribution to the Lao economy by tourism in 2014 was \$642 million, an increase of 7.7 percent as compared to 2013. <sup>42</sup>The WTTC reports that in 2014 travel and tourism directly supported 129,500 jobs or 4.2 percent of total employment. According to the WTTC, the relative importance of tourism

<sup>&</sup>lt;sup>42</sup> Ibid.

to the economy is ranked 124.<sup>43</sup> Many low-cost day trippers join with border passes at Vientiane, Savannakhet, and Luang Namtha's land borders. Vientiane Capital, Luang Prabang, Savannakhet, Vientiane Province, Champassak, and Khammouane are the most popular tourist sites. Leisure (84%) is the most common reason for travel across all markets, and nature (70%), culture (79%), and religious monuments (70%) are the most popular interests (61 percent). The majority of travelers get tourist information from guidebooks/travel publications (41%), the Internet (30%), and word of mouth (26 percent). Inbound travel operators were used by only 165,906 overseas guests. Over 50% of arrivals to the Lao PDR also visit Thailand and 17% visit Thailand and another country in Southeast Asia. 44 The geography of Lao PDR's western border is defined by the Mekong River basin. With year-round navigable waters for much of its length, the 'Nam Kong' serves as a transportation hub for the nation. The Mekong acts as a local highway, swiftly passing through otherwise inaccessible locations. The sights and adventures of river navigation in this area are one-of-a-kind and serve as a valuable tourism resource for the economy. The Lao People's Democratic Republic is the GMS's smallest partner, but it stands to gain a lot from coordinated promotion and marketing of the Mekong as a tourist destination and attraction.

Myanmar: The WTTC reports that in 2014 travel and tourism directly supported 505,000 jobs or 1.8 percent of total employment. According to the WTTC, the relative importance of tourism to the economy is ranked 99th. It's interesting to note that day trippers counted for 1.14 million of the overall number of international tourists in 2014, with the majority entering the country by Thailand's border crossings at Myawaddy and Thachileik. According to the Myanmar Tourism Master Plan, Yangon receives 94% of

<sup>&</sup>lt;sup>43</sup> *Ibid*.

<sup>&</sup>lt;sup>44</sup> *Ibid*.

<sup>&</sup>lt;sup>45</sup> *Ibid*.

international overnight visitors, 27% visit Bagan, and 15% visit Inle Lake. <sup>46</sup> Mandalay is another famous international tourist destination with direct scheduled flights from Thailand, accounting for 27% of international overnight visitors. Leisure (77%) and business (27%) are the two most common reasons for travel (19 percent). The majority of international tourists (67 percent) travel solo and are interested in culture and history (98 percent), eating (90 percent), and nature/visiting (90 percent). About 17% of international tourists use the services of an inbound tour operator. The main source of tourist information is the Internet, guidebooks, and word of mouth. <sup>47</sup> Myanmar has experienced exceptional tourism growth in recent years as a result of major political and economic reforms. In the region known as The Golden Triangle, the Mekong River forms a border between Lao PDR, Thailand, and Myanmar. Myanmar's physical border with the Mekong River is only about 200 kilometers long.

Thailand: Thailand is the standard bearer of tourism in the GMS. this country earned \$38.4 billion in tourism received as compared to \$41.7 bullionism in the GMS. The WTTC reports that in 2014 travel and tourism directly supported 2,210,000 jobs or 5.8% of total employment. According to the WTTC, the relative importance of tourism to the economy is ranked 18.<sup>48</sup> In Thailand, the average length of stay is 9.9 days, with an annual average cost of \$140. Suvannabhumi International Airport in Bangkok, Thailand's principal air gateway, receives a lot of international visitors, followed by Phukhet International Airport and Don Meuang International Airport. In recent years, International Airport has been a major gateway. Nearly a million visitors passed via Nong Khai, the country's land border with Lao PDR. Bangkok, Phuket, Pattaya, and Chiang

<sup>46</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> *Ibid*.

<sup>&</sup>lt;sup>48</sup> *Ibid*.

Mai are the most popular tourist destinations in Thailand (2.3 million visitors). Leisure, medical care, and business are the main reasons for visiting.

Viet Nam: Viet Nam received 7.9 million international tourists in 2014, an increase of 4.0% compared to 2013. The country earned \$7.3 billion or 4.6% of GDP with some 1,963,500 people (3.7% of total jobs) reportedly directly employed in the sector. According to the WTTC, the relative importance of tourism to the economy is ranked 51.<sup>49</sup> The Mekong Delta is gaining a large number of visitors. Leisure (60 percent), business (17 percent), and visiting friends and family are the top three reasons people travel internationally (17 percent). The main attractions are culture and nature. Vietnamese cuisine is also a valuable tourist attraction. On its journey through the GMS countries, the Mekong's delta section is the most extensively cruised segment. Floating marketplaces and villages, its network of canals, delta life, cultural and historical landmarks, CBT activities, and a unique natural setting are among its key attractions. The delta's attractiveness originates from its proximity to and accessibility from Ho Chi Minh City, a major international airport and first-tier attraction. Its attraction is enhanced by its brand recognition, river connectivity to Phnom Penh and Siem Reap, dock expansion, and vessel quality.

## 3.2. A tie connection of the Mekong River to the people

With more than 95 ethnic groups living in the Mekong basin, the river system is home to a significant deal of cultural diversity. Those group of ethic even have some part quite different from each other. However, there many parts that have a common for similarities such as depending on agriculture, fishing for living, and raise animals to support their job. For centuries, Khmer, Lao, Thai, and Vietnamese people in the lower basin have relied on the Mekong's resources, and the river is an important element of

<sup>&</sup>lt;sup>49</sup> *Ibid*.

their culture. For the 60 million people who reside in the lower Mekong basin, the Mekong River provides a lifeline. Aquatic resources like fish and mollusks provide 80 percent of the protein in household diets, and the Mekong fisheries are supposed to be worth over \$2 billion per year. Representing almost 2% of the combined (freshwater and marine) global fish catch by weight, it is the largest inland fishery in the world. Work, eat, and have fun. The Mekong River is vital to the life of tens of millions of people. The river serves as a marketplace for the bulk of them. Fisheries provide food for the world's population, providing over 2.5 million tons of protein every year.

Natural beauty rivals the region's landmarks. The Mekong River, which flows majestically from Tibet's mountains through Myanmar, Laos, Thailand, Cambodia, and Vietnam to the South China Sea 4,800 kilometers long, is the region's major sinew. Many history places become an attractive to millions of foreigners by the story view itself. When the Frenchman Henri Mouhot first saw Cambodia's Angkor Wat in the mid-19th century he marveled that the temple was a rival to "that of Solomon and erected by some Michelangelo" "grander than anything left by Greece or Rome." Bagan, in Myanmar's central dry zone, is one of the globe's most hidden archeological wonders, rarely visited but with so many temples, pagodas and stupas packed into an 80 square kilometer radius that experts are constantly puzzled by their numbers — 2,100 or 4,400? - the first dating from the 10th century the latest perhaps only a few months old. Nestling peacefully on the banks of the Mekong River, the old royal Laos capital of Luang Prabang is arguably one of the most beautiful towns in the world with its gentle fusion of 33 Buddhist temples, crumbling French colonial architecture and a stately 19th century pace of life. \*2there are

<sup>&</sup>lt;sup>50</sup>JICA. "Focus on Mekong." JICA, JICA, Oct. 2009,

www.jica.go.jp/english/news/focus\_on/mekong/mekong\_1.html.

<sup>&</sup>lt;sup>51</sup> *Ibid*.

<sup>&</sup>lt;sup>52</sup>Ibid.

so many precious place and worth thing that had cross along many centuries in the southeast Asia. they become culture and traditional for many countries include the Mekong countries.

## 3.2.1. Specific group ethics along the Mekong River

According to the census in 2007, the total population of Mekong Delta is about 17 million people with diverse ethnics and culture. However, three ethnics of Viet people, Cham people and Hao people are in the majority of Mekong Delta's population.<sup>53</sup> The Mekong delta is located in Cambodia and southern Vietnam, and it is where the Mekong River meets the South China Sea. There are many group ethics who live in the Mekong Delta including Viet, Khmer, Cham and Hao people. With a population of over 16 million, the Vietnamese are the most populous ethnic group in the Mekong Delta. The Vietnamese have lived on this land for a long time. People from the north began moving and farming in this area in the early 17th century. In the Mekong Delta is home to a significant Khmer population. According to the 1999 census, the Khmer population is over one million individuals, accounting for 6.4 percent of the total population of the Mekong Delta.<sup>54</sup> The Cham people have been living and maintaining the Mekong River for the longest time. The Cham in the Mekong Delta have a population of roughly 12,500 people who live primarily in the upper Hao River basin. A vast population of Chinese immigrants from China's south coast went to southern Vietnam in the 17th century. Those people began to settle in the Mekong Delta thanks to the Nguyen Dynasty's permission.

The ethnicity along the Mekong River in Cambodia is quite similar to that of the Mekong Delta in Vietnam. The majority of people living along the Mekong riverfront are Khmer; minority groups such as Chinese, Vietnamese, and Cham live alongside

<sup>&</sup>lt;sup>53</sup> "Vietnam Ethnic." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-ethnic/.
<sup>54</sup> Ibid.

Khmer populations. The Khmer ethnic group is one of Cambodia's oldest and wealthiest. For over a thousand years, Khmer people have lived in Cambodia and developed a mighty Khmer Empire. Those who established the Campa monarchy in the past are Cham people's ancestors. The Cham and Khmer's relationship shifted from allies to adversaries several times between the seventh and fifteenth centuries. The Hao are Cambodia's fastest-growing ethnic group. Chinese descendants began to settle in Cambodia in the 18th and 19th centuries in quest of commercial and commerce prospects. The Vietnamese are Cambodia's largest ethnic minority, with a population of around 2 million people. In the early twentieth century, the Vietnamese community began to settle in Cambodia.

With over 70 ethnic groups, Thailand is a multi-ethnic country. Obviously, the population of Thailand around the Mekong River is diverse in terms of ethnicity and religion. Between the upper and lower Mekong River basins in Thailand, there are about six ethnic groups with different beliefs and customs: Thai, Khmer, Khmu, Vietnamese, Meo, and Lahu, with Thai and Khmer being the most common. Thai is Thailand's most populous ethnic group in general, and around the Mekong River in particular. Thai people, also known as Siamese, have had a long history of settling in Thailand, dating back to the 10th century. Because of mutual cultural interchange and migrant patterns between the two countries throughout history, the Khmer community in Thailand now accounts for a significant portion of Thailand's total population.

Laos is a multi-ethnics country with more than 7 main groups: Mon-Khmer, Palaungic, Khmuic, Tibeto-Burman, Hmong-Mien, Tai and Rau, and Chinese. <sup>55</sup> Laos has a population of approximately 6.5 million people, the most of whom live in the valleys along the Mekong River and its tributaries. The people that live near the Mekong River in Laos can be categorized into three groups based on where they live: lowlanders, middle

<sup>&</sup>lt;sup>55</sup> *Ibid*.

landers, and highlanders. The Lowland Lao Society was founded and developed by the Lao Loum, who made up around 60% of Lao's overall population. Lao Loum, who arrived in Laos from the south of China in the first century, live in a flat area near the Mekong River's lower reaches. Lao Theung is Laos' second most populous ethnic group, accounting for 24 percent of the country's total population. Along the Mekong River, the Lao Theung people reside in lowlands and mountain sides. Lao Seung is a Laotian community that lives at the highest point in the country (regularly over 1000 meters). They are mostly found in the upper Mekong River basin in the northwest. Six ethnic groups, including the Hmong, Akha, Mien, and several tribes, make up the upland community.

## 3.2.2. Greater Annamites

In the heartland of Indochina, there is a region that has kept several of its natural wonders concealed from the rest of the world until lately. The Greater Annamites are the southernmost reaches of the Himalayan Mountain ranges. They form the backbone of Vietnam, much of the border between that country and Lao People's Democratic Republic (PDR), and extend to the south as far as Cambodia. This unique region, which was previously engulfed in terrible violence, is now at peace and finally exposing its secrets. These insights have astounded the world and provided a glimpse into an unimaginable realm of diversity and depth. The distinctive biodiversity of the Greater Annamites is attributed to the continuation of warm, wet conditions during the last ice age. The ecosystem changed across most of Southeast Asia, alternating between moist evergreen rainforest and more open dry forest, but the Annamites' unique characteristics

<sup>&</sup>lt;sup>56</sup>WWF, "Greater Annamites Ecoregion." WWF, WWF,

 $file: /\!/\!/C: / Users/CHORKC \sim 1/AppData/Local/Temp/greater annumite ecoregion. pd$ 

j. <sup>57</sup> ibid.

permitted rainforests to remain, giving the forest and its species thousands of years more to evolve. Due to the short dry season caused by the mountain ridge retaining the easterly monsoons over the mountains, these circumstances exist today, although places surrounding the ecoregion experience dramatic climatic changes.

The Greater Annamites comprises the most unique and most diverse of the biodiversity within the Forests of the Lower Mekong Ecoregion Complex. The discovery of the Saola by WWF and Vietnamese scientists in 1992 in Vu Quang Nature Reserve drew the world's attention to the biodiversity of Vietnam. However, many additional new species have been discovered since that first astounding finding, including the Large-antlered (Giant) Muntjac and the Annamite Striped Rabbit. The Greater Annamites is now recognized as being one of the world's most outstanding and unusual ecoregions, thanks to these discoveries. A number of extremely threatened species, including the Asian Elephant, Tiger, and the world's most endangered large mammal, the Lesser One-horned (Javan) Rhinoceros, struggle for survival in the ecoregion in furthermore to these species, which are completely reliant on successful conservation in the ecoregion.

## 3.2.3. Kayah-Karen Tenasserim

The northern part of the Tenasserim Mountain Range, which forms the Thai-Myanmar border, is included in this ecoregion. Chemical weathering has dissected hills of Paleozoic limestone throughout much of the region. This ecoregion has the overhanging cliffs, sinkholes, and caves that are typical of tropical karst landscapes. The tropical karst is connected with large sections of limestone forest. The vegetation and wildlife are unique to this area, with some indigenous species. Because complex environments are understudied, it's likely that there are endemic species that have yet to

<sup>&</sup>lt;sup>58</sup>ibid.

be discovered. Due to the modern developing about 72% of the ecoregion's forest cover remains, while some may have been degraded owing to shifting farming. Protected areas make up nearly a quarter of the ecoregion, therefore there is a lot of room for conservation. However, as agricultural lands and plantations encroach on forested areas, anthropogenic risks are becoming more prevalent. Thailand's forestry laws have resulted in illegal logging in Myanmar, where protection is looser. Poaching of high-value species is also on the rise, particularly as China's demand grows. Because of these reasons, the priority conservation actions are to: 1) promote sustainable logging and prevent illegal logging in Myanmar; 2) encourage farmers to adopt environmentally friendly agricultural methods; and 3) work with the local ethnic and tribal groups to implement conservation actions and the protection of wildlife of high conservation priority. <sup>59</sup>there a lot of ethic who living around those forest, and they had a long story with this beautiful forest as well.

For example, the Eastern Kayah Li are a Karenic ethnic group, most closely related to Western Kayah Li.<sup>60</sup> The majority of Eastern Kayah Li dwell in Myanmar's eastern Kayah State, with a small group migrating to Mae Hong Son Province in western Thailand around 60 years ago and establishing permanent communities in the last 20-40 years. Both the Eastern and Western Kayah Li believe themselves to be of the same ethnicity. The name "Kayah" is sometimes also used. However, "Kayah" may refer to not only the Kayah Li but also several related language groups that live in the same area of Myanmar. <sup>61</sup>The name "Kayah Li" refers specifically to the Kayah Li, including Eastern,

<sup>&</sup>lt;sup>59</sup> Wikramanayake, Eric, "Kayah-Karen Montane Rainforests." One Earth, One Earth, Dec. 2017, www.oneearth.org/ecoregions/kayah-karen-montane-rainforests/.

<sup>&</sup>lt;sup>60</sup> Project, Joshua. "Karen, Kayah Eastern in Thailand." Joshua Project, Joshua Project, 2021, https://joshuaproject.net/people\_groups/14532/TH.

Western and other varieties.<sup>62</sup> The Eastern Kayah Li people of Thailand are rice farmers who live in Mae Hong Son Province's 10 fairly homogeneous Kayah Li villages. While some Eastern Kayah Li have converted to Buddhism or Christianity, the bulk still embrace traditional animism. The Eastern Kayah Li language looks to be thriving in Thailand right now. Eastern Kayah Li is the predominant language used at home, and before starting school, children can only speak Eastern Kayah Li. Whereas most Eastern Kayah Li adults can communicate in Shan, and those with a higher level of education can communicate in Central Thai, Eastern Kayah Li people continue to speak Eastern Kayah Li as their primary and best language.

# 3.2.4. People Livelihoods and food security

The Mekong River Basin plays a vital role of the many communities that live along it. Harmony Patricio, a conservation biologist and the conservation director at FISHBIO, told mongabay.com "The river means everything to the people living in the basin, especially in rural areas. <sup>63</sup> It is the source of their existence. More than 60 million people rely on fish as a source of protein, with fish accounting for more than half of all animal protein consumed. There isn't much that can replace it. The river is also used for transportation, domestic water supply, rice cultivation, and farming. The Mekong River give benefits the whole year to people along the river. Example, the level of water drops during the dry season, and residents in rural regions have this extremely rich soil, which they use to develop riverfront gardens, which are an important supply of foods like beans and corn. while they may not be able to catch as much fish during the dry season, they do have these extremely productive riverbank gardens. The river also transports massive

<sup>&</sup>lt;sup>62</sup> *ibid*.

<sup>&</sup>lt;sup>63</sup> Hays, Jeffrey. "MEKONG River: Its Route, History and Transport on It." Facts and Details, https://factsanddetails.com/asian/cat63/2sub6/entry-2833.html#chapter-13.

amounts of silt to Vietnam's delta, which provides some of the world's highest rice output, and the nutrients in the sediment generate a marine plume that adds to high fish abundance off the delta's coast. Scientists are only now beginning to grasp the significance of this maritime plume in fish productivity. For fishing there are two types which are family fishing and industrial fishing. For the family fishing is the small business for local people who catch fish for their living. However, industrial fishing is a big of business which need amount of people run their business. Similarly, the Mekong River is really essential place local people, business investment, freshwater and safe food.

# 3.2.4.1. Local people and occupation

The Mekong River is the heart of local people who live along the river. More than a third of the population of Cambodia, Lao PDR, Thailand and Vietnam - some 60 million people - live in the Lower Mekong Basin, using the river for drinking water, food, irrigation, hydropower, transportation and commerce. The Mekong River is a livelihood for millions of people. Understanding the human-river hydrological interaction requires following the Mekong River's path. It lowers 5,000 meters from its source on the Tibetan Plateau and runs through six nations before entering its delta. More than a third of the population of Cambodia, Lao PDR, Thailand and Vietnam - some 60 million people - live in the Lower Mekong Basin, using the river for drinking water, food, irrigation, hydropower, transportation and commerce. The river benefits millions more in China, Burma, and beyond the basin's borders. The river basin accounts for half of Thailand's arable land in the lowlands. The Mekong replenishes the Tonle Sap Lake, one of the world's greatest freshwater fisheries, further downstream in Cambodia. The lake's resources help over half of Cambodia's population, either directly or indirectly. The

<sup>&</sup>lt;sup>64</sup>UNDP Human Development Report 2006. "The Mekong River - Survival For MILLIONS: GRID-ARENDAL." GRID, Philippe Rekacewicz, www.grida.no/resources/5630.

population of the basin area in respective countries is 5.2 million people in Laos, 23.1 million in Thailand, 13 million in Cambodia, and 18.7 million in Vietnam'. Approximately 85% are agricultural communities (MRC 2010: 31-32)<sup>65</sup>. Rice is a staple on most Asian meals, and Vietnam is the world's fifth largest rice producer. Approximately half of that rice is farmed in the Mekong Delta, which generates an incredible 20 million tons of rice per year. The Mekong Delta, is a home to millions of Vietnamese which produces more than half of Vietnam's rice and accounts for a third of the country's GDP as the river reaches the sea. Aside from personal relationships, the river also displays the potential for shared interest and competitiveness.

## 3.2.4. Freshwater and safe food

Agriculture, fishing, and collection of aquatic life and vegetation are the main economic activities of the people in the basin, and about 62.6% of the working population in the region make their living primarily from water resource related work. 66 During in the dry season, the Mekong River not only provides water to the region's metropolitan districts, but it also provides water to agricultural towns. The river provides practically all of the drinking water, daily use water, and agricultural water in the villages along the river. The river is also useful as a playground for youngsters. During the dry season, when the water levels drop, the region becomes extremely dry, and the river banks become major farming areas. Freshwater fish captured in both the main and tributaries, as well as the wetlands and channels connecting to them, are an essential source of protein for agricultural areas. The Mekong and its tributaries and distributaries form the Mekong basin, an elaborate watershed—an area in which the rivers, forests, and soil have a

<sup>&</sup>lt;sup>65</sup>Yuku, Kaguchi.The Mekong River and people's Livelihoods, http://www.mekongwatch.org/platform/bp/english1-5.pdf. <sup>66</sup> Ibid.

symbiotic relationship—that drains an area of 795,000 km². <sup>67</sup> Most of the Mekong's major tributaries are found in the LMB (smaller rivers that flow into a larger river). These tributaries account for more than 80% of the Mekong's annual discharge of 475 km3 of water. The entire Mekong River system shelters several intricately connected ecosystems. <sup>68</sup> These include evergreen, deciduous, and montane forests; shrublands and woodlands; mangroves; and a host of riparian and freshwater ecosystems. <sup>69</sup> Together, these make the Mekong among the most biodiverse regions in the world. It is home to 1,148 fish species, 20,000 plant species, 430 mammals, 1,200 birds, and 800 reptiles and amphibians. <sup>70</sup>

The Mekong also provides two primary food kinds in the region, fish and rice, which feed and support the livelihoods of around 60 million people. The Tonlé Sap, the same lake that is the original birthplace to the magnificent Angkor Empire, is located in Cambodia's heartland. The ebb and flow of this seasonal flooded lake, which peaks in November, refills many natural and agricultural ecosystems with water and silt. The lake becomes a breeding site for numerous fish species when it is filled to the brim. The majority of fish in the Mekong are migratory, traveling great distances to spawn, and the Tonlé Sap is an important breeding ground for several indigenous species. One such fish is the Silvery Carp, which is a key element in Cambodian pra hoc, a salty paste that is a staple condiment for millions along the river. The lake's huge floodplains (low-lying, periodically flooded area alongside the river) constitute one of the world's most productive freshwater fisheries. These floodplains, along with Cambodia's section of the

<sup>&</sup>lt;sup>67</sup> Peiying Loh. "A River Drained: Fish, Rice, and Food Security in the Mekong." Kontinentalist, Kontinentalist, 26 June 2020, https://cdn-images.kontinentalist.com/static-html/food-security-mekong-river-hydropower-

images.kontinentalist.com/static-ntml/food-security-mekong-river-nydropower dam-climate-change/index.html.

<sup>&</sup>lt;sup>68</sup> *Ibid*.

<sup>&</sup>lt;sup>69</sup> *Ibid*.

<sup>&</sup>lt;sup>70</sup> *Ibid*.

Mekong River, provide an ample source of fish to the country, with 5,285,000 tones nearly four times the country's marine production. while all the Mekong countries rely on the river's supply of fish, Cambodia is arguably the most dependent on it. Freshwater fish is essential to the food security of Cambodians; the country's estimated consumption of fresh fish per capita is a high 33kg per year. So we could see that the original place of produce fish is a safe place and many countries need to import these products from those countries along the Mekong River. That is the reason that the Mekong River is the center of supporting southeast Asia to be a developed country.

# 3.3. Culture attractive and religion

## **3.3.1.** Vietnam

Because of its history, the Mekong Delta is a multi-cultural area. The Mekong Delta is a crossroads for many great cultures. The diversity of ethnic groups has resulted in a diversity of lifestyles and traditions among Mekong Delta residents. The "Culture of Rivers" and "Culture of Orchards" are the two fundamental aspects of the Mekong Delta's culture. Cai Luong is a Mekong Delta-based art performance that is still growing. In Vietnam, Cai Luong (literally "reformed opera") is a type of modern folk opera. The Mekong Delta has developed a common and prominent quality of its people - FORGIVENESS - as a meeting point of good natural conditions, international waterways, and diverse civilizations. This trait has resulted in three major outcomes that have a direct impact on the Mekong Delta's culture, beliefs, and values. First of all, the "Culture of Orchards" is the unique work of people in Mekong Delta in reclamation of this fertile land.<sup>72</sup> Despite the harshness of nature, humanity have shown a tremendous desire to deal

<sup>&</sup>lt;sup>71</sup> *Ibid* 

<sup>&</sup>lt;sup>72</sup> Mekong, Travel, "Vietnam Culture." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-culture/.

with and enhance it. Furthermore, talking about the Mekong Delta without addressing the Mekong River's influence on the culture here is such a blunder. Hundreds of years of residing and making a livelihood on the Mekong River's branches has resulted in a distinct civilization. The Mekong Delta is known for its gorgeous scenery, blue sky, and fresh air, as well as its people's fast-paced and fascinating lifestyle. The living in the Mekong Delta has a rustic appeal but a dynamic and unique beauty, thanks to the livelihood supported by the Mekong River's canals.

Vietnam is a country with a diversified mix of various religions that have had a significant and deep influence on Vietnamese culture and ideology. It is located in the center of Southeast Asia and has thousands of years of establishment and growth. The perspective toward spirit, life, death, people, and the world reflect the deep dominance of triple faiths such as Buddhism, Hoa Hao, and Co Di, which coexist. The Mekong Delta, a newly settled multi-cultural region, besides its characteristic as rivers, mountains, fruit orchards and natural environment, it also has spirits which are believed to protect humans from outside enemies.<sup>73</sup> When compared to other religions, Buddhism has been around since the beginning. People in the north practice Mahayana Buddhism, while those in the Mekong Delta practice Theravada Buddhism. Hoa Hao is the second most influenced religion in Mekong Delta with nearly 1.5 million followers (according to the census in 2009). Hoa Hao religion was instituted Tan District, An Giang Province in 1939 by Phu So Huynh. <sup>74</sup> Cao Dai, which means "at the top" in Vietnamese, was founded in 1929. Cao Dai is a relatively recent religion, with over three million adherents, as compared to Buddhism or Catholicism. Cao Dai is a synthesis of three great religions: Buddhism, Taoism, and Confucianism.

<sup>&</sup>lt;sup>73</sup> Mekong, Trave,. "Vietnam Religion." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-culture/.

<sup>74</sup> Ibid.

### 3.3.2. Cambodia

Cambodians living along the Mekong River have developed a rich and diverse culture with distinct hue over the course of more than two thousand years of history. Cambodian culture is an adaption of Indian culture, with Thai and Laotian cultures influencing Cambodian culture and vice versa. Cambodia has historically been the most important cultural center in Indochina. When it comes to Cambodia, the grandiose Angkor Temples of Angkor Wat and Angkor Thom come to mind. However, not only were holy Angkor Temples erected during the most glorious period of the Khmer Empire, but also a flexible Khmer dance was invented and completed. Khmer Dance is the epitome of Khmer culture, representing Khmer history, cultural customs, and the art of choreographing Khmer dances. People living around the Mekong River have a lifestyle that combines common characteristics of Southeast Asian countries with unique characteristics. These Cambodians have distinct methods of working, living, and behaving, which contribute to Cambodia's unique charm. Each country's people have distinct personalities: The Japanese are reserved, the Chinese are cautious, and the Koreans are emotive. Cambodians have several distinct qualities that contribute to the country's particular appeal. Cambodians are generally compassionate, sensitive, and courteous. Cambodians evolved and developed a unique Khmer culture over the course of two millennia, influenced by two factors: Indian culture and a long history of habitation along the Mekong River. The golden time of Cambodia was between the 9th and 14th century when Khmer civilization reached its highest.<sup>75</sup>

Cambodia has a long history of more than two thousand years, during which time it has seen numerous significant political and social transformations. Cambodia is now a

<sup>&</sup>lt;sup>75</sup>Mekong, Travel, "Cambodia Culture." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-culture/.

multi-religious country as a result of these changes. The population residing around the Mekong River practices at least six religions: Theravada Buddhism, Mahayana Buddhism, Hinduism, Islam, Christianity, and Cao Dai. For millennia, Buddhism has been the dominant religion in Cambodia. Buddhism, which has been practiced in Cambodia since the 5th century, is the official religion of the Khmer people, who make up around 95% of the entire population. In Cambodia, Islam is the religion of the Cham people and a small minority of Malay. Cham people, who follow Sunni Islam, live in heavily populated areas along the Mekong River in Kampong Cham. In Cambodia, there are around 300,000 Muslims. In Cambodia, Christianity is the most recent religion. Christianity was introduced to Cambodia during the French colonialism in the 19th century, but it has limited effect in Cambodian life, with only 20,000 adherents accounting for 0.15 percent of the entire population.

### 3.3.3. Lao

Despite having one of Asia's lowest population densities, Laos is home to a diverse range of ethnic groups and tribes, resulting in a rich diversity of language, traditions, and culture. Despite globalization, Laos' culture is still impacted by Buddhist beliefs, thinking, and behavior, resulting in the Laos people's humble existence. Lao people have lived beside the Mekong River for over a thousand years and have developed a unique lifestyle as well as cultural value, including beautiful dance performances. In Laos, dance performances are classified into two categories: classical dance and folk dance. To protect their way of life and traditions, they are quite conservative. The first and most prominent aspect of Laos people's lifestyle is their preference for Buddhism. Each country is defined by its cultural characteristics, which include lifestyles that are both obvious and concealed at the lowest levels of social and cultural life. As you travel through Laos, you will see the exquisite lifestyle and strong connection between people

and nature that Lao people in general, and Lao people living near the Mekong River in particular, have. Laotians, like Cambodians and Thais, dress up in glitzy traditional clothes that express their spirituality and artistic sensibilities. Laotian costumes differed according to ethnicity, displaying their own perspective on nature.

Although there are many religions in Laos, the color of Buddhism is the most dominant and profound. Besides, Animism is not less important religion in Laos as it is followed by most of ethnic minorities. Each religion has different beliefs, teachings and rituals but both play a vital role in Laotians' spiritual life. Laos was a late adopter of Buddhism (in the 8th century). Buddhism did not grow and spread throughout the country until the 14th century. Many rulers in Laos' history have been considered as great Buddhist patrons. Animism is a common religion among ethnic groups in Laos that live in the highlands. The belief in phi is the foundation of Animism (spirit). The power of spirit, according to animist thinking, is the explanation to all that has happened in their lives: illness, disease, death, and so on. In Laos, Christian's account for a small percentage of the total population (approximately 45,000 people). The Christian population in Laos is primarily concentrated in urban centers and surrounding areas along the Mekong River in the country's middle and southern regions. Like Christianity, Muslim is a small minority in Laos and practiced by Cham community. This community only takes up 0.01% of the total population.

## 3.3.4. Thailand

In daily life, Thailand's culture is the perfect mixture of Chinese and Thai cultures which are based mainly on Brahmanism & Buddhism, absorb various influences and blind them into unique and memorable Thai, have a deep influence on practices and

<sup>&</sup>lt;sup>76</sup> Mekong, Travel, "Lao Religion." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-culture/.

<sup>77</sup> Ibid.

beliefs of people here. Thailand is a fascinating country with outstanding old customs and history, located at the crossroads of Asia's rich cultures such as China, India, and Cambodia. Aside from calm pagodas and temples and authentic Thai cuisines, classical art performances are another unique feature that draws thousands of visitors. When visiting Thailand, one of the finest ways to gain a deeper understanding of Thai culture is to attend traditional Thai art performances. Thai singing and dancing performances reflect the rich spiritual life of the Thai people, and vice versa, these performances reflect the Thai community's rice and other crop productivity. In comparison to Laos and Cambodia, the Mekong River has a less evident and deep impact on Thailand's life and culture. Despite only running through Thailand's eastern and northern regions, the Mekong River is critical to the socioeconomic development of six border provinces: Loei, Nong Khai, Nakhon Phanom, Mukdahan, Amnat Charoen, and Ubon Ratchathan.

<sup>&</sup>lt;sup>78</sup> Mekong, Travel, "Thailand culture." Travel Mekong, Travel Mekong, www.travelmekong.com/travel-guide/vietnam-culture/.

# **Chapter 4:** The role of Mekong River Commission (MRC)

# **4.1.** History(1957-now)

Regional cooperation over the Mekong River goes back more than 60 years, making it one of the first transboundary rivers governed by an international river body and according to the principles of equitable use.

In 1957, the Committee for Coordination of Investigations on the Lower Mekong River Basin – often referred to as the Mekong Committee – was set up under auspices of the United Nations, with membership of Cambodia, Lao PDR, Thailand and Viet Nam.

## 4.2. Vision and Mission

### 4.2.1. Outcomes

The MRC's work focuses on delivering outcomes in four key result areas. These are concrete priority areas that the organization seeks to influence to advance its mission and role as a regional river basin organization in the Mekong.

Under each key result area, the strategic outcomes and approach to deliver these outcomes are outlined as follows:

- 1. Enhancement of national plans, projects and resources from basin-wide perspectives
- Policy makers and project planners increase common understanding and application of evidence-based knowledge
- National sector planning agencies optimize environmental management and sustainable water resources development for basin-wide benefits
- National planning and implementing agencies share and apply guidance for the development and management of water and related projects and resources
  - 2. Strengthening of regional cooperation

- Member Countries implement the MRC Procedures effectively and coherently
- Effective dialogue and cooperation between Member Countries and strategic engagement of regional partners and stakeholders on transboundary water management
  - 3. Better monitoring and communication of the basin conditions
- Member Countries strengthen basin-wide monitoring, forecasting, impact assessment and dissemination of results for better decision-making
  - 4. Leaner River Basin Organization
  - MRC transitions to a more efficient and effective organization in line with the decentralization Roadmap and related reform plans

## 4.2.2. Agreement

The 1995 Mekong Agreement establishes the goals, objectives and underlying principles by which the four Member Countries intend to cooperate. They are summarized as follows:

- To cooperate in all fields of sustainable development, use, management and conservation of water and related resources of the Mekong River Basin, in a manner that optimizes multiple uses and benefits of water and related resources in the Mekong River Basin including irrigation, hydropower, navigation, flood control, fisheries, timber floating, recreation and tourism (Article 1).
- To promote the sustainable development of the basin's full potential and prevent wasteful use, with an emphasis on joint and/or basin-wide development projects and programs (Article 2).

- To protect the environment, natural resources, aquatic life and conditions, and ecological balance of the Mekong River Basin and minimize pollution and other harmful effects (Articles 3 and 7-10).
- To utilize the waters of the Mekong River system in a reasonable and equitable manner (Articles 4-6).<sup>79</sup>

## 4.2.3. The five procedures of member cooperative to water management

The MRC Member Countries have developed a set of pioneering procedures for the management of the shared water resources of the Mekong River. The five procedures, which take a cooperative rather than a regulatory approach to water management, demonstrate the Member Countries' commitment to working together.

The procedures cover the following areas:

- Data and information sharing: **Procedures for Data and Information Exchange and Sharing** (PDIES), approved in 2001. It establishes a framework for the MRC Member Countries to share and exchange data on water resources, topography, agriculture, navigation, flood management and ecology, among others. The aim is to enhance joint management of the shared water and related natural resources in the region.
- Consultation on infrastructure projects: **Procedures for Notification, Prior Consultation and Agreement** (PNPCA), approved in 2003. Prior consultation is a process for the MRC Member Countries to discuss and evaluate benefits and risks of any proposed water-use project which may have significant impacts on the Mekong River mainstream's flow regimes,

<sup>&</sup>lt;sup>79</sup>Pegasys Consulting Hannah Baleta, Guy Pegram, Marc Goichot, Stuart Orr, Nura Suleiman, and the WWF-Cambodia, Laos, Thailand and Vietnam teams."Mekong River in the Economic." Pegasus, November. 2016, file:///C:/Users/chorkchey/Downloads/Documents/mekong\_river\_in\_the\_economy\_final.pdf.

water quality and other environmental and socio-economic conditions. Any Member Country that intends to implement a project is required to notify the other countries and provide them with available data and information. The process enables the other countries to assess possible impacts on their territories and comment on the proposed water use.

- Water use monitoring: **Procedures for Water Use Monitoring** (PWUM), approved in 2003. It provides a comprehensive framework to support effective monitoring of water use and diversion. It specifically addresses the need to strengthen or establish the monitoring system and report any use of water which may have a significant impact to the water quality or flow regimes of the Mekong mainstream by any Member Country.
- Maintenance of flows: **Procedures for Maintenance of Flows on the Mainstream** (PMFM), approved in 2006. The intent of the PMFM is to cooperate on the maintenance of a mutually acceptable hydrological flow regime on the mainstream to optimize the multiple uses and mutual benefits of all riparian countries and to minimize the harmful effects.
- Water quality: **Procedures for Water Quality** (PWQ), approved in 2011. It establishes a cooperative framework in order to maintain good/acceptable water quality to promote the sustainable development of the Mekong River Basin. The PWQ protects riverine communities and the Mekong's aquatic life from transboundary water pollution by supporting continual river quality monitoring and emergency response preparedness.

# 4.3. Governance and Organizational structure

The Mekong River Commission (MRC) consists of three permanent bodies: the MRC Council, the MRC Joint Committee, and the MRC Secretariat. The MRC Summit takes place every four years.

### • Summit of Heads of Government

The four-yearly MRC Summit of Heads of Government, first organized in 2010, is the highest political forum of the MRC whereby outcomes of cooperation are assessed, and directions set for the following four years. The fourth Summit in 2022 is an important milestone for the MRC to assess the direction of its work and support to the Member Countries.

#### Council of Ministers

As the highest decision-making body in the MRC, the Council approves the MRC Strategic Plan (SP) and makes decisions on all policy-related matters concerning its implementation, including organizational policies, basin-wide strategies and plans, strategic cooperation partnerships, and resolution of differences. The Council provides strategic guidance on priority setting, including by approving the multi-year work plans, including annual budgets, based on endorsement from the Joint Committee and the recommendation of the Budget Committee.

#### • Joint Committee

In coordinating the implementation of the Council's decisions, the Joint Committee (JC) steers the implementation of the MRC SP. This role includes technical priority setting and guidance on delivery of activities as well as reviewing and endorsing policy-related resolutions for submission to the Council for approval. The Joint Committee provides guidance on the preparation of the multi-year work plans, including the definition of activities and allocation of annual budgets.

The JC is assisted by task forces, working groups, committees, expert groups that provide technical input and advice on institutional, technical and policy related issues. The Budget Committee advises the JC on work plan and budgetary matters. The Audit Committee independently oversees the internal and financial control of the MRC and reports to the JC. As senior officials in their respective countries, Joint Committee members also have extensive networks which need to be mobilized to advance the MRC's aims. The CEO works closely with Committee members in this regard.

### • MRC Secretariat

The MRC Secretariat is the operational arm of the MRC and performs technical, facilitating and administrative functions under the management of a Chief Executive Officer (CEO). It facilitates regional meetings of the Member Countries and provides technical advice on joint planning, coordination and cooperation. It also works closely with the four countries' coordinating bodies, the National Mekong Committees (NMC) partners and stakeholders.

The MRC Secretariat undertakes many of the MRC SP activities in cooperation with national counterparts and others. Each of the Secretariat's divisions and office will lead implementation of specific activities with the contribution of other divisions identified in delivery plans.

### • National Mekong Committees of Line/Implementing Agencies

In each Member Country, line or implementing agencies in water and related sectors, as well as those agencies relevant to Mekong cooperation (such as planning and investment and foreign affairs), are members of a NMC, supported by a Secretariat (NMCS) which performs cross-sectoral, cross-agency coordination, communication and reporting. The NMC Secretariats are attached to the ministry responsible for water resources management and/or environmental management. The chair of the NMCs is the

level of Deputy Prime Minister or Minister, and the members are vice minister and Director General level from key line and implementing ministries.

### • Development Partners

While the Member Countries increase significantly their financial contribution to USD 25 million for the MRC SP 2021-2025 and therefore great ownership of the organization, well in line with their commitment in the roadmap for self-sustainability by 2030, cooperation and significant funding for the next five years would come from MRC's Development Partners (DP). DPs support the MRC and its Member Countries in their collective drive to balance development and protection of one of the world's great rivers.

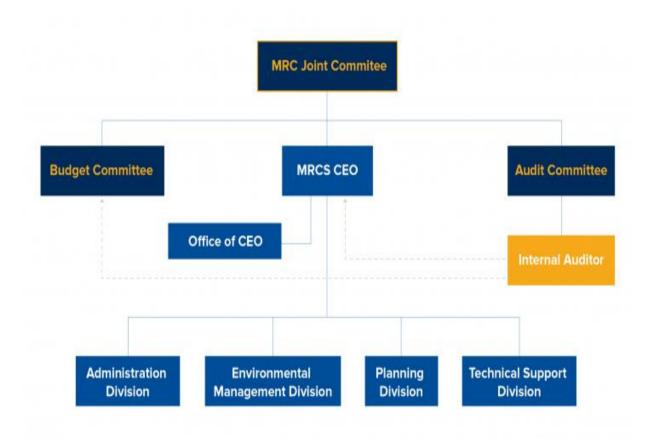
#### • Structure and Governance of the MRC Secretariat

The MRC Secretariat consists of four divisions and one office: Administration Division (AD), Environmental Management Division (ED), Planning Division (PD), Technical Support Division (TD) and Office of the Chief Executive Officer (OCEO). The Organization has more than 60 fixed term staff based at the MRC Secretariat Headquarters in Vientiane and the MRC's Regional Flood and Drought Management Center in Phnom Penh. The MRC Secretariat is supported by various consultants at the national levels, and some of the best technical experts from the region and all over the world.

• Administration Division (AD): Provides administrative support to help management and staff enhance workplace effectiveness. AD manages financial transactions, human resource, and information systems and technology. It also supports the MRC Secretariat and the Member Countries in organizing governance meetings, such as meetings of the Council, Joint Committee, Development Partners and Dialogue Partners.

- Environmental Management Division (ED): Plans, executes and manages the implementation of the MRC's core river basin management functions such as environmental monitoring, analysis and assessment. ED leads the formulation and implementation of strategy for basin-wide environmental impact assessment and State of the Basin Report. It also manages the MRC's assistance to the Member Countries for improved water quality and ecosystem in the Mekong River Basin.
- Planning Division (PD): Manages the formulation of the Basin Development Strategy, Sustainable Hydropower Development Strategy, and the updating of the Preliminary Design Guidance. PD supports the implementation of the MRC's Procedures including the prior consultation process. It also manages the MRC's assistance in the sectors of climate change, agriculture and irrigation, socio-economic and navigation, and the implementation of joint transboundary projects.
- Technical Support Division (TD): Manages database and information system, decision support system and modelling tools, flood and drought forecasting and early warning system, joint studies/research and assessment. TD supports the implementation of the MRC Procedures related to data sharing, maintenance of flows and water use monitoring, and assists the Member Countries in monitoring sediment flow, and water and climate. Additionally, TD manages the MRC Regional Flood and Drought Management Centre in Phnom Penh.
- Office of the Chief Executive Officer (OCEO): Manages the MRC's work on strategic planning, international cooperation and partnership, communication and stakeholder engagement, monitoring and evaluation, fund-raising and organizational development. OCEO also supports the formulation and adoption of the Basin

Development Strategy, Strategic Plan, and the implementation of the MRC's Procedures. 80



<sup>80</sup> MRC," Mekong River Commission." MRC, http://archive.iwlearn.net/mrcmekong.org/about\_mrc.htm.

# **Chapter 5:** The involvement of external players

# 5.1. External players

## **5.1.1.** Japan

The Japanese cooperation in Mekong Region has a long history. In term of strengthening the cooperation, Japanese government has been officially contributing to the transformation of the Mekong Region into global growth center under initiative of "Mekong-Japan Cooperation" since 2009. The cooperation represents Japan's increasingly proactive foreign policy towards five countries along the Mekong River. It aims to support the people in the Mekong Region in term of boosting prosperity through assistance from ODA and maintaining its influence in the Mekong Region. As Mekong Region faces trans-boundary water management, Japan 's presence is also to promote peace, security and stability among countries in the region.

Under the platform of Mekong – Japan Cooperation, Japan and countries in the Mekong Region have been gathering in the annual summit every three-year in Tokyo, hosted by Japanese government. The three-year summit results about an action plan, called "Tokyo Strategy". Principally, the Tokyo Strategy has been focused mostly on economic development, infrastructure development, human resource and environment. For instance, the tenth Mekong-Japan Summit in 2018 has conducted the action plan of "New Tokyo Strategy 2018" which is focused on three pillars: 1) the vibrant and effective connectivity, 2) on people-center society, and 3) the realization of a Green Mekong. As a result, the heads of states agreed to enhance their relationship into strategic partnership to balance the influence from major power, especially from China.

The first pillar of "effective connectivity" is expressed through Japan's involvement in three type connectivity, such as hard-, soft- and industry connectivity.

The hard connectivity is related to Japan's support on quality infrastructure, for instance expanding airport facilities in Laos and road construction in Myanmar. The soft connectivity of Japan's agenda is to support cooperation in the field of ICT with economic advancement, for instance E-commerce. It is important to enhance modernization of postal and services in Mekong Region. The last, industry connectivity supports both Japan and Mekong Region in term of supply chain, SME and innovative Start-ups, as well as the development of Special Economic Zones (SEZs), for example Japan involves supporting the idea of smart cities.

The second pillar of "people-centered society" is important for Japan's agenda in the cooperation because it aims to transform Mekong countries into a diverse and inclusive society with "no one left behind". In this dimension, Japan supports human resource development through assistance of healthcare, education as well as legal and judicial cooperation. For decade, Japan invested for as many as 700 billion yen or 7.7 billion US dollars which has been allocated for basic education, agriculture and rural development as well as healthcare service, in particular in Myanmar for the expansion of HIV/AIDS prevention programs and Anti-Drug measures.

The third pillar of "Green Mekong" makes Japan's cooperation different from other cooperation. In the Green Mekong pillar, Japan is not only recognized as major power that gives the aids, but it focuses on the exchange of views and best practices to promote balanced approach towards economic development, environmental protection and sustainable growth. For instance, the Mekong Region faces the challenges such as natural problems including disaster and climate change, and man-made problems, including hydropower development. Japan steps in solving these problems by sending Japanese experts for the purpose of sustainable development and management of the Mekong River.

All over the Cooperation's action plans, Japan's presence in the Mekong Region is seen to balance and counter the power of China in Southeast Asia, in particular in the Mekong Region. China has pledged 10 billion US dollars to Mekong riparian states under its platform of "Lancang-Mekong Cooperation" since 2015. Its scheme of the cooperation is part of the commitment for the "Belt and Road Initiative (BRI)". China's presence is inescapable; it is building a rail line through Laos, ports (and casinos) in Cambodia and dams in Myanmar. The presence of China is a large extent "politicized" in the Mekong Region. Moreover, China has been expanding its military presence and reinforcing its claims to disputed islands and maritime rights. Regarding to the issue, Japan and the Mekong Region leaders have discussed issues related to Chinese military installations in South China Sea in the summit. Even though, Japan is a country outside the South China Sea, but it always tosses out statements that are harmful to regional stability because there was an innuendo that China has been expanding its military clout for "war game" which the main theater is the Indian Ocean. Therefore, to challenge the dominance of Chinese presence, Japan also promotes the "Free and Open Indo-Pacific Strategy (FOIP)", launched by Prime Minister of Japan, Shinzo Abe and supported by the United States. Japan created "Maritime Security and Safety Capacity Improvement Project" in Viet Nam with aiding patrols per year expecting 72 times until 2023.

Japan and Mekong region cooperation has started around the 8<sup>th</sup> Century, contact with Viet Nam began when a ship carrying Japanese envoys to China was caught in raging storm and washed up on the Indochina Peninsula. From 600 years ago, lively trade was conducted with the countries of Southeast Asia. Many Japanese immigrated to the Mekong Region after Japanese *shogunate* government started issuing trade licenses (*shogunate*-authorized overseas travel permits) to trading vessels during the Edo era in the 1600s. The system of authorizing trading vessels later fell into disuse due to Edo

shogunate government's isolationist policies, but trade recommendation in the late 19<sup>th</sup> century during the Meiji period. Furthermore, the cooperation between Japan and Southeast Asia was started by establishing the bilateral diplomatic relations with Thailand in 1887, following other Mekong regions after the Second World War with Cambodia in 1953, Myanmar and Lao PDR in 1955, and Viet Nam in 1973.

According to the Khmertimes, the continuity of Japanese presence in the Mekong Region makes local people satisfied. For the local people, Japanese development project in the Mekong Region, especially the infrastructure project is transparent. Another point of satisfaction is high quality standard of infrastructure. Moreover, the satisfaction of local people that Japan affords to involve the expert on developing infrastructure. It is acknowledged as a sign of the inclusiveness especially people living in the rural community in Mekong region who directly get affected from development.

In conclusion, Mekong Region is directly under China's shadow that it is a challenge for Japan's presence in the Mekong Region. The Japan's geopolitical effort in Mekong Region is able to balance the power of China because China's power in Mekong Region is dominant. In this case, Japan cannot ignore the China's role in the Mekong Region. The platform of "Mekong – Japan Cooperation" is in fact sharing similar broad prospects with China in the economic aspect. Therefore, both major powers have to admit that the five riparian states in the Mekong Region are not able to take side, even though Japan has a clearly strong point on providing excellent quality infrastructure and transparency with its commitment to help local people by pillar of people-society centered and focusing more on protecting the environment through "Green Mekong" 81

<sup>&</sup>lt;sup>81</sup>Reni Juwitasari. "Japan's Connectivity with Mekong Developing the Region or Shadowing China." School of Social Innovation, https://socialinnovation.mfu.ac.th/social-main/social-arcid/monitor-and-analysis-unit/social-news-detail-

## **5.1.2. The US**

The launch of the Mekong-U.S. Partnership reflects the importance of the Mekong region to the United States. Our relationship with Mekong partner countries is an integral part of our Indo-Pacific vision and our strategic partnership with ASEAN. With more than \$150 million in initial investments in regional programs, we will build on the good work of the Lower Mekong Initiative and the \$3.5 billion in regional U.S. assistance during the last eleven years.

The Mekong-U.S. Partnership is committed to the autonomy, economic independence, good governance, and sustainable growth of Mekong partner countries. The United States has dedicated more than \$52 million to fight COVID-19 in the region, building on more than twenty years of Mekong-U.S. cooperation on infectious diseases. We have supported economic growth with more than \$1 billion to develop infrastructure in ASEAN countries through the U.S. International Development Finance Corporation (DFC), and plan to invest billions more in the coming years.

The Mekong-U.S. Partnership will also continue to strengthen water security and the work of the Mekong River Commission. It will include \$55 million in planned new investments to help our Mekong partners combat transnational crime, including narcotrafficking and trafficking in persons, arms, and wildlife. It will also increase support for energy security and electricity sector development through Asia EDGE (Enhancing Development and Growth), the Japan-U.S.-Mekong Power Partnership (JUMMP), and the Japan-U.S. Strategic Energy Partnership (JUSEP). In all our efforts, the United States intends to work closely with partners like Japan, Australia, South Korea, India, and other good friends of the Mekong.

We need to be candid, however, about the challenges we face, including those from the Chinese Communist Party (CCP), which increasingly threatens the Mekong's natural environments and economic autonomy.

The CCP's unilateral decisions to withhold water upstream have exacerbated an historic drought. The United States stands with the region and the Mekong River Commission in calling for transparent data sharing. We encourage countries of the Mekong region to hold the CCP accountable to its pledge to share its water data. That data should be public. It should be released year-round. It should include water and water-related data, as well as land use, and dam construction and operation data. And it should be shared through the Mekong River Commission, the organization that serves the interests of Mekong-region countries, not those of Beijing.

We are also concerned about infrastructure-linked debt and the predatory and opaque business practices of Beijing's state-owned actors, such as China Communications Construction Company. Concerning also is the boom in trafficking of persons, drugs, and wildlife, much of which emanates from organizations, companies, and special economic zones linked to the CCP.

Countries of the Mekong region have undergone an amazing journey in the last few decades. They deserve good partners. Through the Mekong-U.S. Partnership, we look forward to many more years of collaboration to ensure a peaceful, secure, and prosperous Mekong region.<sup>82</sup>

<sup>&</sup>lt;sup>82</sup> Micheal R. Pompeo, Secretary of state. "The Mekong-U.S. Partnership: The Mekong Region Deserves Good Partners." US Embassy in Cambodia, 14 September. 2020, https://kh.usembassy.gov/the-mekong-u-s-partnership-the-mekong-region-deserves-good-partners/.

# **5.2.** The Greater Mekong Subregion

The Greater Mekong Subregion, (GMS) or just Greater Mekong, is a trans-national region of the Mekong River basin in Southeast Asia. The region is home to more than 300 million people. It came into being with the launch of a development program in 1992 by the Asian Development Bank that brought together the six Asian countries of Cambodia, China (specifically Yunnan Province and the Guangxi Zhuang Autonomous Region), Laos, Myanmar (Burma), Thailand, and Vietnam.

The Greater Mekong holds irreplaceable natural and cultural riches and is considered one of the world's most significant biodiversity hotspots. The region is an important food provider and the site of many large-scale construction projects with social and economic implications.

# 5.2.1. Regional Cooperation

For more than two decades, the six countries of the Greater Mekong Subregion have been working together under an economic cooperation program to realize their vision of a prosperous, integrated, and harmonious subregion.

The GMS Program has adopted a three-pronged strategy (the three Cs):

- 1. Strengthening connectivity through physical infrastructure and the development of economic corridors.
- 2. Improving competitiveness through market integration and the facilitation of cross-border trade and travel.
- 3. Building a sense of *community* by addressing shared social and environmental concerns.

The GMS Program, with the support of development partners, helps identify and implement high-priority subregional projects in a wide range of sectors: agriculture, energy, environment, health and human resource development, information and

communication technology, tourism, transport, transport and trade facilitation, and urban development. More than US\$20 billion in investments have been directly channeled through the program.

Since 1998, the GMS program has been using economic corridors to promote economic growth and development. Economic corridors are investment areas, usually running along major highways, which connect centers of economic activity. Three main economic corridors are being developed in the Greater Mekong Subregion: The North-South Economic Corridor, the Southern Economic Corridor, and the East-West Economic Corridor.

In September 2017, the 22nd Ministerial Conference in Hanoi, Vietnam endorsed the medium-term pipeline of priority projects from 2018 to 2022. The rolling pipeline includes more than 200 investment and technical assistance projects, which will require more than US\$80 billion in financing.

On 31 March 2018, the Sixth GMS Summit of Leaders in Hanoi adopted the Hanoi Action Plan and the Regional Investment Framework 2022

# 5.2.2. Landscape and biodiversity

The region has a diverse landscape including massifs, plateaus, and limestone karsts, lowlands, floodplains and deltas, forests (evergreen and semi-evergreen, deciduous, dipterocarp, mangroves, and swamp), and grasslands. Water environments include fast-flowing mountain streams and wetlands such as Tonlé Sap in Cambodia.

The region's geographic variety and consequent variety of climatic zones supports significant biodiversity, with more than a thousand new species discovered in the first decade of the 2000s. The geographic region encapsulates 16 of the World Wide Fund for Nature's (WWF) Global 200 ecoregions, and habitats for an estimated 20,000 plant species, 1,300 fish species, 1,200 bird species, 800 reptile and amphibian species, and

430 mammalian species. Notable species include the Javan rhino, Irrawaddy dolphins, and Mekong giant catfish, one of the largest extant freshwater fish. The WWF reported that in 2016, 115 new species were discovered in the region, including three mammals, two fish, 11 reptiles, 11 amphibians, and 88 plants. This brings the total number of newly-discovered species in the Greater Mekong Subregion from 1997 to 2016 to 2,524.

The region's biodiversity is ranked as a top-five most threatened hotspot by Conservation International. The WWF cites accelerating economic development, population growth, and increased consumption patterns as primary causes, including agricultural deforestation, logging and illegal timber trade, wildlife trade, overfishing, dam and road construction, and mining. The WWF also states that the region is particularly vulnerable to global climate change.

#### **5.2.3.** Conservation

With the rapid development in the region, conservation efforts to protect natural resources, habitats, biodiversity and local cultures in the Greater Mekong have become urgent. The most pressing current threats are hydropower development, climate change, illegal wildlife trade, and habitat loss.

## **5.2.4. Environment threats**

The harvesting and production of natural resources in the Greater Mekong Subregion is of significant economic importance, with the retail value of Mekong River fisheries alone estimated at more than US\$4 billion annually.

The Greater Mekong Subregion has become the site of large-scale construction projects and rapid economic development, including hydropower dams, mining, forestry, and industrial production. These factors have raised environmental concerns internationally since the mid-2000s. For now, it has resulted in formulation of environmental programs and strategy proposals and strategy developments of a

sustainable green growth economy for this region. It has been attained by influential organizations like the United Nations (UNEP and FAO), WWF, PROFOR and others, in high-level collaboration with the governmental ministries of the countries comprising the Greater Mekong Subregion.<sup>83</sup>

<sup>83</sup> Zooza, "Greater Mekong Subregion." Wikipedia, https://en.wikipedia.org/wiki/Greater\_Mekong\_Subregion.

## **CONCLUSION**

The Mekong, Southeast Asia's most important river, has for millennia supported the rise and fall of empires and is responsible for the livelihood of over 65 million people who live directly on its riverbanks, relying on the river for food, accommodation and employment. The river hosts a unique and significant ecological system, with some of the world's highest diversity of fish and snails.

Over the last decade, the Mekong region has faced growing challenges, including a steady increase in hydropower projects, as a result of rapid economic development of the riparian states, comprising Cambodia, China, Laos, Myanmar, Thailand and Vietnam. The need for cheap and renewable energy is rising to meet increasing electricity demands in the region, volatile prices in international energy markets and concerns over carbon emissions and climate change is increasingly having an effect, visible in the currently dangerous low levels on the Mekong following the devastating 2019 drought which affected downstream countries, especially Vietnam's rice fields and Cambodia's fisheries. To date, China has built 11 dams on the Lancang River, and a further 11 mainstream dams in the lower Mekong and 120 dams in the tributaries are under construction or being planned. While some observers argue that the Chinese held back more water than ever in 2019, the low levels of water in recent years are likely cumulative effects of climate change, El Niño weather systems, existing hydropower dams, increases in water demand and other activities such as sand dredging – all of which are irrevocably changing the river. The Mekong has increasingly become a focal point for different power players in the region competing for influence amid the rivalry between China and the US. Recent key events include the third Lancang-Mekong Cooperation (LMC) Leader's Meeting and

the inaugural Mekong-US Partnership Ministerial Meeting between America and the five Mekong members of the Association of Southeast Asian Nations (ASEAN).

The third Lancang-Mekong Leaders' Meeting between China and Cambodia, Laos, Myanmar, Thailand and Vietnam were held in August. The meeting focused on establishing a Lancang-Mekong Water Resources Cooperation Information Sharing Platform to better tackle climate change and natural disasters and to promote connectivity by linking the Lower Mekong countries with the New International Land-Sea Trade Corridor. This corridor traverses western China and connects Southeast Asia with the Eurasian continent. Addressing the ongoing drought, Chinese premier Li Keqiang in August pledged that starting in 2020, China will share the Lancang River's hydrological data for the whole year with the Mekong countries. Until now, China has only shared its water data during the wet season, from June to October; but not during the dry season. It remains unclear if the pledged date will be timely and fully transparent. While China focuses on infrastructure development in Southeast Asia, the US, Cambodia, Laos, Myanmar, Thailand, Vietnam and the ASEAN Secretariat launched the Mekong-US Partnership, expanding on the Lower Mekong Initiative in 2009. The focus is on strengthening the autonomy, economic independence and sustainable development of the Mekong partner countries and promoting a transparent, rules-based approach to transboundary challenges. The partnership provides more than US\$150 million additional resources for various projects ranging from Covid-19 relief, countering transnational crime and human trafficking, developing energy markets, to anti-drought measures and expanding disaster relief exercises to strengthen local preparedness and responsiveness.

Australia has been engaged in development in Southeast Asia and the Mekong region for decades, including supporting the Mekong River Commission alongside other

donors. However, funding cuts in the aid program have hindered the visibility of Australian aid, with on-the-ground projects reduced and country specialists lost through understaffing. While the 2020 Australian federal budget committed significant new funding of A\$304 million for Pacific island countries and Timor-Leste, Southeast Asia will receive a \$60 million new Covid package to support health security, stability and economic recovery package under the ASEAN Partnerships for Recovery program as announced in September.

On health security, ASEAN Partnerships for Recovery program will include a new partnership to help the Mekong sub-region enhance early detection of Covid-19 using Australian technology to monitor wastewater. Initiatives such as these are steps in the right direction, but funding needs to be sufficient to be visible alongside other key players in the region. Competing with China's emphasis on infrastructure might be the wrong funding direction. Rather, Australia should build on its previous levels of engagement and success of Australian development assistant programs. The Lancang Mekong Cooperation Special Fund makes it hard for ASEAN countries to turn away from China. Aid can be an important source of influence. However, in order for Australia to keep a seat at the table and be a partner of choice, it needs to increase its budget and expertise in mainland Southeast Asia, while playing to its strength and reviving brand Australia.

## RECOMMENDATION

The Mekong River is Southeast Asia's beating heart, coursing almost 5,000 km through China, where it is known as the Lancang River, and onward through Myanmar, Laos, Thailand and Cambodia before entering Vietnam and flowing into the sea. More than 70 million people rely on the river, partly or entirely, for their livelihood, and its central role in the economies of the Lower Basin countries cannot be understated. Taken together, Cambodia, Laos, Thailand and Vietnam represent around half the Mekong region's entire production of rice and fish, a third of tourism, and a large percentage of the region's energy demands, according to a recent study by the Mekong River Commission (MRC). But the Mekong's enduring role as a source of life and livelihoods is facing multiple threats. These threats have been compounded by the COVID pandemic that has created unprecedented economic hardship and worsened environmental degradation. With incomes decimated by prolonged lockdowns, fishing has intensified. Throughout the basin, communities have faced other existential challenges, including riverbank erosion and reduced replenishment of the Mekong Delta as a result of increased water use and climate change. We must come together to respond to these challenges to preserve the world's 12th longest river and its productive value for all riparian countries, yet nature is already showing signs of impatience. Severe droughts in 2019 and 2020 saw Mekong water levels fall to record lows. The MRC, which represents the four countries of the Lower Mekong River Basin, estimates severe droughts and floods will only become more frequent.

We must develop new solutions based on trust, good faith and enhanced cooperation among lower basin countries, and work to protect the Mekong River's

delicate aquatic ecosystem. Balancing national interests and promoting regional benefits should be top of the development agenda for each member country.

To make this happen, proactive, integrated, basin-wide planning must be strengthened. If not, we will all have to bear collective responsibility for the widespread societal and environmental deterioration throughout the entire Mekong Basin. That is why the commission's member countries have devised a new strategy for the entire river basin. The Basin Development Strategy 2021-2030 represents both an evolution and a break from the past, harmonizing national interests and optimizing regional benefits, as well as promoting shared development responsibility. It calls for all stakeholders to commit to a comprehensive blueprint aimed at improving the state of the basin over the next decade while adhering to the United Nations' sustainable development goals. The strategy balances development planning with the demands of economic growth, social improvement and protection of the environment.

We have identified five strategic areas to boost the Mekong River's ecology, which call for a joint commitment by relevant governments to improve living standards across the Mekong basin while strengthening public and private sector cooperation. Overcoming these complex challenges will be a daunting task. As part of our strategic plan, we look forward to deepening our engagement with China, a dialogue partner since 1996. Building on a solid foundation of cooperation, we urge China to fully engage with the MRC, especially regarding data and information sharing, proactive regional planning and coordinated management. We saw a huge step in China-MRC cooperation with Beijing's agreement last October to share year-round water data with the MRC after 18 years of limiting such information to the flood season only. But more needs to be done.

Our mutual dependency and prosperity have been highlighted by recent changes in the basin's hydrology brought about by a proliferation of new dams. A shift in daily and seasonal flow patterns resulting from water being stored for regional power has disrupted the Mekong's ecology, putting lives and livelihoods at risk. We believe that national power generation should be subject to a proper coordination management mechanism, and future plans must consider the full range of viable alternative generation sources that are environmentally friendly, logistically feasible and economically responsible. Demographic challenges are also testing the Mekong River's durability. A total basin population estimated at 72.1 million in 2020 is projected to reach approximately 100 million by 2040. Though great strides have been made to reduce poverty and boost growth, inequality remains pervasive.

Recent events should serve as a wake-up call, which no single MRC member country should ignore. Whether we are talking about the Upper Mekong or the Lower Mekong, protecting them is our joint responsibility to halt the environmental damage that is already hurting the river and people's livelihoods. We have come a long way since the Mekong Agreement was first signed in 1995, but the goals of achieving sustainable development for the Mekong River Basin remain timeless. The stakes for the region are now higher than ever before.

For the new strategy to succeed, it demands a political commitment of the highest order. It will require active engagement from all stakeholders, working together as individuals, citizens, countries or organizations. That is because the Mekong River belongs to everyone and will help determine the future of a vital and evolving region.

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