

# Outline of the Mekong River

## From Tibetan Mountains to the Mekong Delta

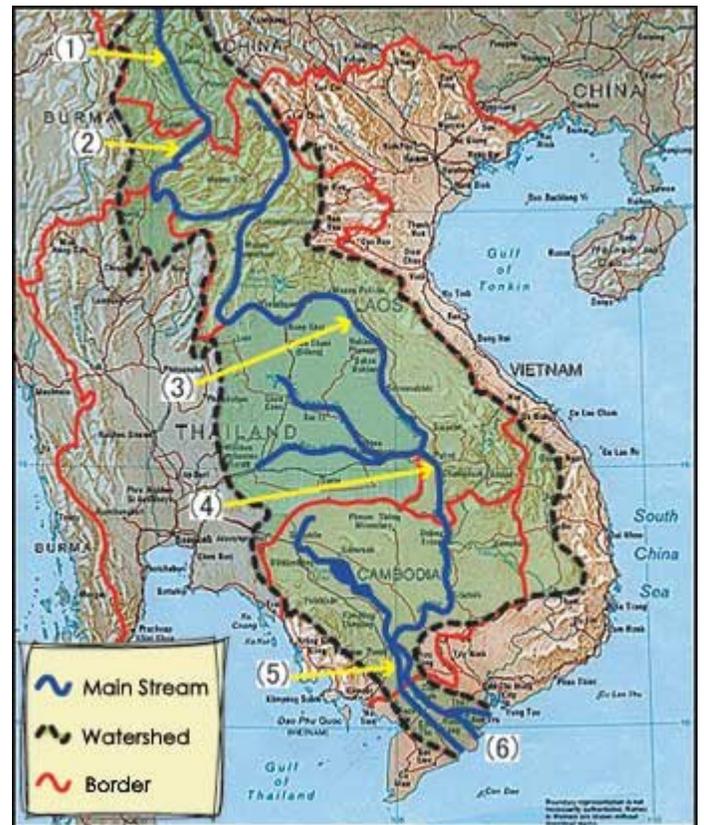


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## 1. Geographic Review

The Mekong River is one of the world's 10th rivers in its river length and has great influences upon nature and societies of the Indo-china Peninsula. The name "MEKONG" originate in Thai language, Mae Nam Khong<sup>1)</sup>. The source of the Mekong River is in Tibet mountains and is called Dza Chu River (River of Rock). After running through very narrow valley paralling Yangz Jiang and Salween River, the Mekong reach to Yung-Nan Province of China and is called Lancang Jiang (Turbulent River). Via Golden Triangle, the crossing of China, Myanmar and Laos boarder, the Mekong flow into Vientiane Plain. The term, Lower Mekong means downstream segment from the point. There are some notorious rapids for French navigation plan in colonial period before the Mekong get to Cambodia, and the last segment is the Mekong Delta in Viet Nam, which distributes grate influeces to agriculture, especially paddy fields there. According to a sketch on the right, we can see this long river with some segments hereinafter;



- 1) Originated from the east edge of Tibet belongs to Yung-Nan Province in China and run down to the south
- 2) Run through the border of Laos PDR and Myanmar
- 3) Continue running to the south and run through the border of Laos PDR and Thailand
- 4) Take some right tributaries from Thailand and then run into Cambodia
- 5) Take some right tributaries including Tonlesap River from Great Lake
- 6) Start breaking up into plural flows and form vast Mekong Delta in Viet Nam and finally run into the South-China Sea

## 2. Countries in the Mekong River basin

This complicated flow and relationships between each country have created specific history and international relationships of the Mekong River, i.e. many kinds of problems or frictions related to economy and politics among the nations. Therefore this river is often called 'The Danube in Asia' due to its difficulty as an international river. The history of adjustment began from the Mekong River Committee that organized under ECAFE of UN in 1957. After the long war period on Indo-China nations, the committee was reorganized to interim one without Cambodia and then MRC (Mekong River Commission) undertake the task independently against UN. Present members are Viet Nam, Thailand, Cambodia, and Laos followed by China and Myanmar as observers. Now their biggest theme is sustainable developing of the Mekong River. The data<sup>2)</sup> of each MRC country are below;

**Table- Countries in the Mekong River basin**

Nations	Area (km <sup>2</sup> )	Basin in nation (km <sup>2</sup> )	Ratio
The People's Republic of China	9,597,000	165,000	1.7%
The Union of Myanmar	678,030	24,000	3.5%
The Lao Peoples Democratic Republic	236,725	202,400	85.5%
The kingdom of Thailand	513,115	184,240	35.9%
Cambodia	181,100	154,730	85.4%
Social Republic of Vietnam	331,700	65,170	19.6%

In Laos and Cambodia, approximately 85% of national area corresponds to the basin of Mekong River, therefore these countries have pretty deep relationships to the river. Both of capitals, Vientiane and Phnom Penh have the Mekong River in its central part. Regarding China and Myanmar, the Mekong River carves not so much part of each country. Thailand has some areas of the Mekong River over the Kholart highland which located east part of the country. And not only the Mekong Delta but also some small basin in south-central mountains which run into Cambodia belong to Viet Nam.

These countries constitute the Indo-China Peninsula and at the same time, they have strong interactions with some regional cooperation like ASEAN. On the viewpoint of nation, the Mekong basin is under the complex social frameworks which can be reasoned from political system like, social republic, kingdom, republic, democratic. However, this region has many common points or connections due to same races in life style and cultures on the backdrop of history over borders of each country.

## 3. Basic figure of the Mekong River

Here we can see some basic conditions concerning the Mekong River.

**Table- Basic figure of the Mekong River**

Items	Value
Catchment Area	795,500km <sup>2</sup> ◆ ifrom 'Mekong River - Development and Environment' Hiroshi Hori ◆ j
River Length	4,620km (same above. 4,880km in a report of ADB)
Highest Point	4,968m ◆ iat a pass of Tibet, Rupsa la ◆ j
Flow Coefficient	53 ◆ iat Crache, Cambodia) the ratio of [max flow in a year/min flow in a year]

### (1) Catchment Area

Catchment area of the Mekong Delta is very unstable due to lack of proper survey especially in upstream mountainous area and in the Mekong Delta of which watershed is obscure. Therefore each documents has each values on catchment area or other figures like stream length. But we can image its size with approximately 800,000km<sup>2</sup>, nearly double of Japanese land (about 370,000km<sup>2</sup>). Below are the short comments at several main points of the river.

- Within China

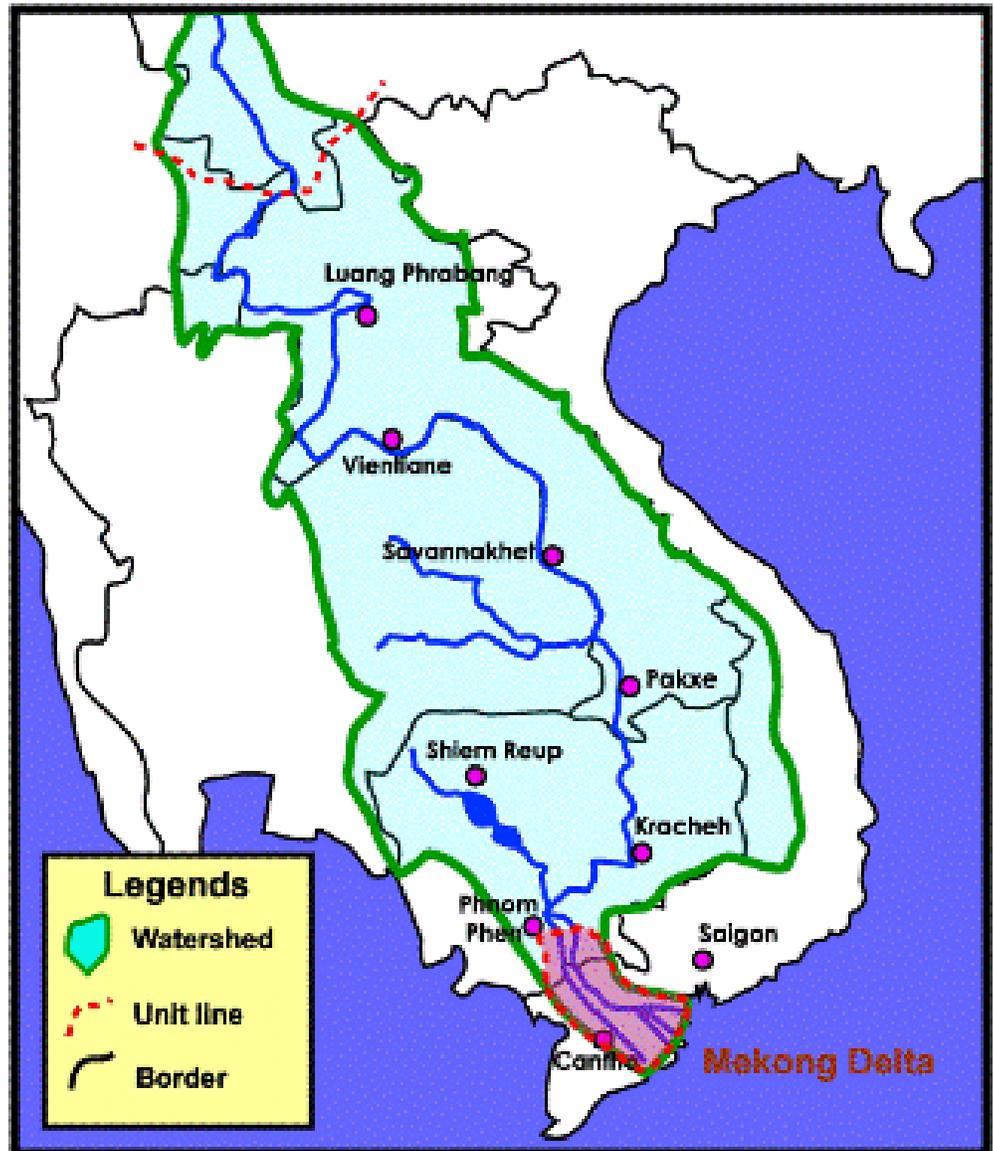
The Mekong River is called Lancang in the region of China and runs to the south next to the Yangtze River. After going out from Yunnan Province of China, the Mekong River reaches the Golden Triangle, which is an intersection of China, Myanmar and Laos border. The upper area from the red dotted line has 165,000km<sup>2</sup> that contains 20 percent of the whole catchment area and at the point of the Golden Triangle, its area is 189,000km<sup>2</sup> that is equal to half the area of Japanese land.

- Midstream

On the premise that the mid-area of the Mekong Delta is from the Golden Triangle to the confluence of the Siem Reap River, this segment has 580,000km<sup>2</sup> area without the upper segment of China. Lower half of this area from Vientiane, most topography in the catchment area, especially the right shore (the west side) might be classified as plain and we cannot ignore some big branches like the Mun River from Thailand.

- Mekong Delta

It is very difficult to define the strict area of the Mekong Delta due to its topographical vagueness and the border between the Mekong River and the Saigon River is also unclear especially in the rainy season. Generally, at the point of Kompong Cham, Cambodia is recognized as the top of the Delta but we might be able to understand its top corner at Phnom Penh like the map here. The area of the Mekong Delta is approximately 49,520km<sup>2</sup>.



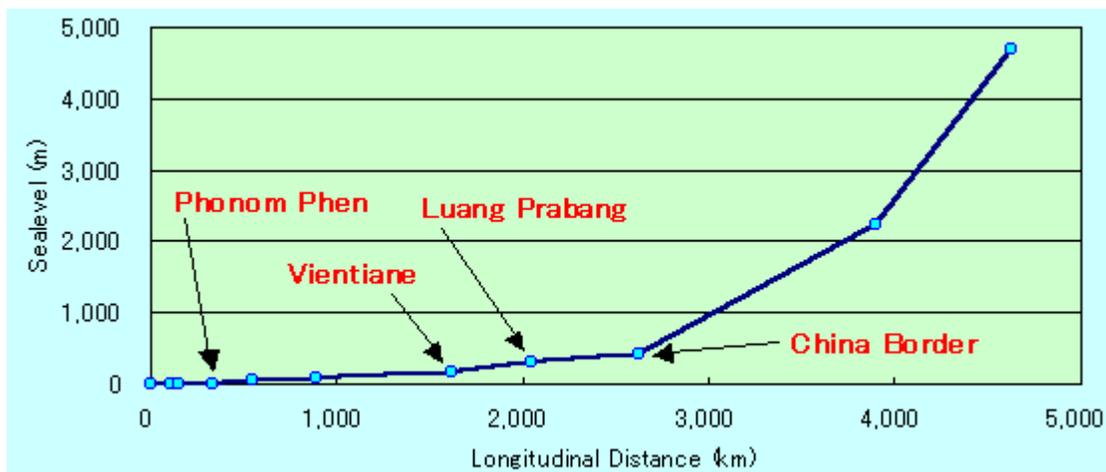
**Table- Area comparing in each segment**

Segment	Catchment Area	Ratio (segment/total area)
Within China	165,000km <sup>2</sup>	20.7%
Midstream	580,000km <sup>2</sup>	72.9%
Delta	49,520km <sup>2</sup>	6.2%
Total	795,500km <sup>2</sup>	100%

These above data shows us two characteristics of the Mekong River on the viewpoint of its shape. One is a fact that the Mekong Delta is not so large as we generally image with the powerful name, the Mekong Delta. The Delta only occupies 6.2% of the whole basin. Another is the shape of basin in China. This segment has about 2,000km length of streams that contain 40 percent of the whole, nevertheless, on the point of catchment area, that only occupies 20 percent of the whole. It means the shape of basin in upper stream is extremely slender.

**(2) Length and inclination**

Below is a sketch of longitudinal figure of the Mekong River. The altitude data at each points was collected from several sources or was counted backward from its inclination in a span so this is not a rigid information. However this picture might help you understand the Mekong River's topographical figure.



**Figure- Profile image of the Mekong Delta**

The last and lowest point is 0m above sea level, and the first and second lower one is Can Tho City and Long Xuyen City in the Mekong Delta, Viet Nam. These areas on the Delta only have 1.0-3.0m in height and this values also indicate that the most parts of the Mekong Delta is very vulnerable to the influence of tide which has some 4.0m differences between flood tide and ebb tide in maximum.

From its origin, Tibet Mountains, to north Yung-Nan Province has an inclination of 1/290. And at the Luang Prabang Basin, the inclination shows 0.19/1,000 followed by 0.24-0.39/1,000 at the downstream valley<sup>3)</sup>. From this segment to Laos, the slope turns gentler little by little and after running through the Vientiane Plan and Corn Fall located southern Laos, it is no longer make counter line on the map and finally reaches to the Mekong Delta and the South China Sea.

- References

- 1) The Mekong - Turbulent past uncertain future, Milton Osborne, 2000, ALLEN & UNWIN
- 2) THE MEKONG: The Development and Its Environmental Effects, HORI Hiroshi, KOKON-SHOIN, Japan, 1996
- 3) Kasen Kougaku (River Engineering), Sakekawa, Oya, et al., KAJIMA Publishing, Japan, 1996

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Web site: Mekong Delta in Viet Nam (<http://cantho.cool.ne.jp>)