



# The Mekong River

An **unknown** and  
**threatened kingdom**



WWF/Connie Hunt



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source

*May creatures all abound  
In weal and peace; may all  
be blessed with peace always;  
all creatures weak or strong,  
all creatures great and small;  
creatures unseen or seen,  
dwelling afar or near,  
born or awaiting birth,  
may all be blessed with peace!*

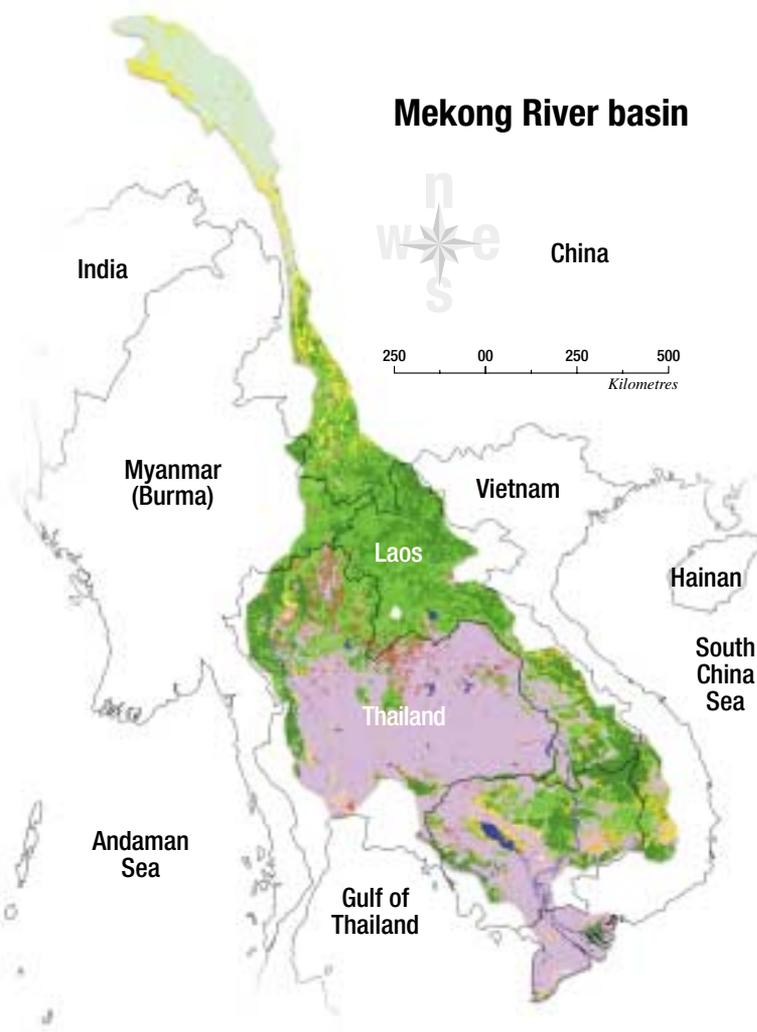
*Just as with her own life  
a mother shields from hurt  
her own, her only, child,  
let all-embracing thoughts  
for all that lives be thine.*

Excerpt of a Buddhist hymn  
from the Sutta Nipita

## Living Waters

Conserving the source of life

## Mekong River basin



### IGBP landcover

- Evergreen forest
- Mixed forest
- Deciduous forest
- Shrublands
- Woody savannas
- Grasslands
- Permanent wetlands and waterbodies
- Natural/human vegetation mosaic
- Croplands
- Urban and built-up

Geographic information based on 1-km AVHRR-Satellite data spanning April 1992 through March 1993

*The Mekong River is the tenth largest river in the world with a biological diversity comparable to that of the Amazon. The Mekong flows through scenic gorges in China's Yunnan Province through the "Golden Triangle" formed by the borders of Burma, Laos, and Thailand; and over the Khone Falls to the Tonle Sap River before entering its delta - "the nine tails of the dragon" - and flowing to the South China Sea.*

# The Mekong River

## An unknown and threatened kingdom

The Mekong River valley is steeped in history and mystery. Along its course one finds living evidence of the history of the region, from the Kingdom of Siam to the Vietnam War; from the placid lives of Buddhist monks to traffic in heroin and tiger parts.



## Rich Source to Many

### **Mysterious are the myriad creatures that live below the surface of the turbid river.**

Scientists believe that there are over 1300 distinct species of fish in the Mekong River and its tributaries, making it second in the world only to the Amazon in fish diversity. Three new species of fish, each over a metre in length, were discovered in the late 1990s. Some of the last surviving populations of globally endangered species such as the Irrawaddy dolphin and Siamese crocodile live here. The basin is also rich in freshwater turtles, mussels, and snails, many of which form part of the staple diet of families along the river but have yet to be identified by science.

The river system on which these animals depend is extremely dynamic in nature. It is the seasonal

and spatial variation in flows, from trickles in the headwaters to flood torrents below, that drives the impressive productivity of the Mekong River system. Floodplains, wetlands, and running water work together to

keep the life cycle intact, allowing adult fish access to the floodplain wetlands where they were born in order to produce the next generation.



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The freshwater fisheries of the Mekong River and tributaries are estimated to have a market value of nearly US\$1 billion per year.

In and around the river, 60 million people depend on fish and other resources in the river system for most of the protein in their diets. These people use the river and its tributaries as arteries of transport and sources of water for cooking, cleaning, sanitation, and irrigation. The rhythm and timing of floods signal to neighbouring communities when it is time to plant rice and harvest fish. The rivers are like teachers to local children who learn to play with and relate to life in the rivers.

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## Lurking Threats to All

**In spite of growing population pressures on the watershed and water quality of the Mekong,** the River has largely escaped the wholesale alterations of landscape and flood patterns that have decimated the natural biology of many of the world's rivers.

But the Mekong has long been viewed as the foundation of economic growth and prosperity in mainland Southeast Asia, becoming the focus of often inappropriate water resource development projects. In 1995, the four countries of the lower Mekong basin – Cambodia, Laos, Thailand and Vietnam – signed a “Co-operative Agreement for the Sustainable Development of the Mekong River Basin.” This agreement formally established the present-day Mekong River Commission (MRC) to facilitate collaboration on regional river development issues.

## Examples of Dams planned or constructed in the Mekong Basin.

Country	Dam	Status	Area (to be Inundated)
China	Manwan	Completed in 1996	311ha
	Dachaoshan	Completion scheduled for 2000	653 ha
	Shaowan	Designed in 1999; awaiting construction start in 2000.	2,364 ha
	Nuozadu	In early phase investigation and planning	2,400 ha
Cambodia	Stung Kamchay	Earliest possible implementation year is 2005	2,050 ha
	Stung Manam 2	Earliest possible implementation year is 2005	2,550 ha
	Sambor	Earliest possible implementation year is 2014	87,900 ha
Lao PDR	Nam Ngum	Completed in 1971	846,000 ha
	Nam Leuk	Completed in 1999	1,300 ha
	Nam Theun 2	Completion expected in 2005	45,000 ha
	Xe Pian-Xe Namnoy	Land preparation initiated in late 1990s; project currently stalled	3,800 ha
Thailand	Pak Mun	Completed in 1994	6,000 ha
	Rasi Salai	Officially opened in 1994	8,000 ha
Vietnam	Yali	Completed in 1996	6,450 ha

Each of the water resource development projects proposed for the Mekong River basin has the potential to damage the ecology of both river and forest ecosystems, with most of the benefits accruing to people outside of the basin – a very different population from the Mekong communities who will bear the brunt of the costs.

## The Alternative-Design for Development in the 21st Century

**Since the first plans to build dams and change the region's natural landscape were formulated,** many more sustainable technologies for achieving energy, food production, flood damage reduction and commercial transport have emerged, with greater benefits to the surrounding communities. Some alternatives include:

**Managing consumption.** Thailand and China both operate extremely successful energy efficiency programmes that reduce demand for additional power generation. Investments in these programs will increase economic productivity per unit of energy expended.

**Diversifying agriculture.** The production of a variety of plant and animals can be designed to mimic natural ecosystems. The result is improved nutrition for local people, less reliance on volatile commodity markets and a healthier environment.

**Natural flood damage reduction.** Methods include floodplain restoration, watershed management and flood warning and evacuation systems. These all allow the rivers to continue to provide natural benefits, such as fish production and floodplain fertilization; they are also generally much less expensive than dams and dykes.

**Renewable Energy and Natural Gas.** Natural gas and biogas, solar and wind energy are proving to be better for the environment and more beneficial to rural communities. As the cost of these technologies comes down, they are outcompeting conventional energy sources.

# Living Waters

Conserving the source of life

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption.

**Conserving the source of life**

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