

# Harnessing the Mighty Mekong River

by Gail G. Billington

The 4,200 kilometer Mekong River in Southeast Asia is the tenth-largest river in the world, providing a natural link to six regional countries, which entered into a program of subregional economic cooperation in 1992 with the assistance of the Asian Development Bank (see Figure 2, p. 24). From its origins high in the Tibet Plateau, the Mekong is shared by Yunnan Province, China; Myanmar; Lao People's Democratic Republic (P.D.R.); Thailand; Cambodia; and empties into the South China Sea through the Mekong delta of southern Vietnam. The Greater Mekong Subregion (GMS), as it is known, is one of the most productive agricultural regions in the world, and includes the world's two most important rice-exporting nations: Thailand and Vietnam. The combined population of the six participants is approximately 240.4 million people in a land area of 2.3 million square kilometers. In 1997, its total Gross Domestic Product was \$211.8 billion, but annual per-capita GDP ranged from \$280 to \$3,100.

The plans for development of the Mekong River Basin have existed since the late 1950s. Many were worked out by the United Nations, and even by the U.S. Bureau of Land Reclamation. But the potential of this region has only begun to see progress in the last few years, due to the political conflicts, which have kept much of the Mekong region embroiled in wars continuously since World War II. Because of that conflict, all of the participants except Thailand, rank among the poorest nations in the world. Projections suggest that the total population could reach 314 million by 2010, and contribute 100 million to the growth of cities and towns. Currently, much of the large labor force is underemployed and undereducated, while its mineral and water resources remain largely untapped.

The GMS initially came together to enhance economic interaction, particularly in infrastructure and energy. It is an informal grouping of neighboring countries, which have held several ministerial conferences that have produced agreements covering criteria for choosing project priorities and building an institutional structure for developing the region. The Asian Development Bank (ADB) has played the role of "facilitator," providing technical assistance, supporting the consultative process, and mobilizing interest among potential donors and investors.

In 1996, the ADB released an overview report of the priority infrastructure projects agreed to by the GMS, in eight areas: transport (road, rail, air, and water), energy, telecom-

munications, environment, human resource development, tourism, trade facilitation, and investment. Sector studies, completed under ADB technical assistance programs, included recommendations regarding nearly 100 subregional projects and initiatives in these priority areas. Figures 5-8 were adapted from the project maps in the ADB report.

It should be readily apparent from these maps that the current plans are actually a giant step down from those conceived in earlier decades. Water control projects, which could prevent massive damage from periodic flooding, are not included at all. Nuclear power has been ruled out, and in general, the vision is limited by the idea that half of the projects have to be financed by private means—a virtually impossible condition if there is to be extensive modernization of major infrastructure.

## Priority Projects

In the transport sector, studies identified 34 priority subregional projects, as follows: 9 relate to roads, 8 to rail lines, 10 to water transport, 6 to air transport, and 1 to institutional development. In the energy sector, 12 priority subregional projects have been identified, of which 8 relate to power generation and transmission, 2 to hydrocarbon development, and 2 to institution building. Telecommunications studies cover 13 transmission projects, while an additional 5 studies cover feasibility, policy development, and related option studies, which have been endorsed for priority implementation by the GMS participating countries.

To keep up the momentum behind these projects, the members have set up ongoing forums to recommend approaches to the "hardware" of infrastructure building and the "software," including resolution of physical borders between nations and harmonizing government rules and procedures governing cross-border transit of goods, vehicles, and people. This process will benefit from the opening of a headquarters of the Mekong River Commission on May 4, 1999. The Commission is a predecessor to the GMS, and includes four GMS members, Cambodia, Laos, Thailand, and Vietnam, in promoting development of water and resources in the lower Mekong basin. The headquarters will alternate between Phnom Penh, Cambodia and Vientiane, Lao P.D.R., every five years.

The ADB estimates the cost of the priority projects so far agreed to by the GMS at \$40 billion over the next 25 years, half to be funded by the ADB, with the balance covered by private sector investment. Within a year of the ADB's release of its overview report on the Greater Mekong Subregion, the nations of Southeast Asia were plunged into the worst financial crisis in postwar history, and no country escaped the painful collapse of currency values, diminishing aid, and rising unemployment. As of February 1999, the ADB had updated the status of the priority projects, most of which updates concern the progress in lining up financing for the previously agreed-to physical projects.

That said, in looking at the maps of the GMS plans pre-

FIGURE 8

**Greater Mekong Subregion Proposed Telecommunications Network (as of February 1999)**



Source: Asian Development Bank.

sented here, keep in mind that what is represented, even if only a first approximation of what is required, is a revolution-in-the-making for these countries, and defines a whole new universe of opportunities for a population that has fought and suffered long and hard to seize such opportunities.

Highlights of key projects follow:

**Transport:** Road transport is the principal mode for freight transport in the region; however, the quality of road infrastructure, including bridges, is generally fair to poor, except in Thailand. Existing roads in the subregion were mostly built in the 1930s to 1960s. Available fleets of vehicles are generally small and rates of motorization are low, i.e., bicycles and motor scooters vastly outnumber cars and trucks.

Road projects, shown in Figure 5, will fill in the Trans-Asia Highway, linking all six GMS members, as follows:

Bangkok, Thailand to Phnom Penh, Cambodia to Ho Chi Minh City and coastal Vung Tau in southern Vietnam; Northeast Thailand through Lao P.D.R. to central Vietnam; Chiang Rai, Thailand to Kunming, China through Myanmar and Lao P.D.R.; and Kunming, China to Hanoi, Vietnam. The total cost of the nine proposed road improvements is \$2.1-2.7 billion.

Figure 6 shows rail transport projects. Rail transport should take on a larger role in freight transport; however, except in Thailand and Yunnan Province, rail conditions are poor to nonexistent. There is *no* rail system in Lao P.D.R. at present, for example. The cost of estimated repair, upgrading, or building from scratch is estimated at \$4.4-5.8 billion.

Air transport projects, shown in Figure 7, are weighted to improving five regional airports and construction of a new Bangkok International Airport, the latter project postponed due to conflicts over site, but even more due to the 1997 financial crisis. The estimated cost of the five selected projects is \$4.5-5.8 billion.

Figure 7 also shows water navigation projects, including inland river transport and coastal seaports. In addition to the Mekong and its multiple tributaries, the region is endowed with several major rivers, including the Chao Phraya in Thailand, the Red River in northern Vietnam and, in Myanmar, the Ayeyarwady, Chindwin, Thanlwin, and Kaladan Rivers. A number of hydrological and navigational obstacles must be solved on the Mekong, while riverports and seaports suffer from inadequate berthing and cargo facilities, aging transport fleets, and poor port management. Estimated cost of selected projects is \$737-810 million.

**Energy:** The GMS has enormous energy-generating potential; however, the geographic distribution of energy resources is uneven. According to the ADB's report, up until recently, the six GMS countries had based energy development on national "self-sufficiency." A shift to an integrated regional approach based on plugging hydropower-generating capacity into an electric power transmission grid, with links to a cross-border gas pipeline network, is planned. ADB estimates potential electricity generation from hydropower at 250,000 megawatts, or ten times current total generating capacity. The greatest potential is located in Yunnan Province, Myanmar, Lao P.D.R., and Vietnam. In contrast, current rates of electrification among the GMS members is an extremely low 4-13% of total population, while annual per-capita electricity consumption averages only 220 kilowatt-hours (kWh), compared to, for example, 10,500 kWh in the United States, 6,400 kWh in Japan, and 5,595 kWh in Germany.

Telecommunications, Figure 8: The state of telecommu-

nications technology, particularly in Cambodia, Lao P.D.R., and Vietnam, underscores the extreme penalty exacted on these countries from the wars and postwar isolation they have endured. The ADB report says that there are *no direct links* between any of the three countries; rather, calls between any two of the three countries must be placed through a third location, such as Australia or Hong Kong, China. Before the collapse of the Soviet Union, which had been the major source of aid to these countries, a call from Phnom Penh to London, for example, would be passed through operators in Moscow. The objective of the GMS telecommunications plan is, simply, to build the first-ever standardized, integrated subregional grid.

# The Mekong River Development Plan

by Marcia Merry Baker

A map of the proposed “Mekong Cascade” system of mainstream dams and reservoirs is shown, as of 1990, (Figure 9 and Table 1). These illustrations are reproduced from an *EIR* feature on the area, “Mekong Development Plan: It Is Time To Awaken the ‘Sleeping Giant,’ ” from March 29, 1991.

The Mekong Cascade is the core part of developing the Mekong River Basin (see Figure 2, p. 24), and details were worked out decades ago. However, the major projects have been held up not only by warfare, but principally by opposition from international financial institutions and powers opposed to development. The latest Asian Development Bank proposals for the region conspicuously *omit any map of dams*, and barely make mention of any of the obvious large-scale projects.

In 1983, at a conference in Bangkok, Thailand, Lyndon LaRouche outlined several “Great Projects” for the Mekong and other regions, for developing the vast resources of the Pacific and Indian Ocean Basins. For the Mekong region, these concentrated on control of the huge river.

**River Basin Development Projects:** The Mekong Cascade is an integrated system of dams and reservoirs that would regulate the lower 2,000 kilometers of mainstream flow of the greater Mekong system, providing power, flood control, irrigation, and many other benefits. As of 1990, total project costs would have been in the range of \$20 billion.

The Mekong is Asia’s third-largest river. In terms of annual flow, it is the eighth-largest river in the world. It begins as a snow-fed river, rising in the

Tanghla Range of northern Tibet, in China, at an elevation of 5,000 meters, where the Yangtze River also originates. But the lower Mekong Basin is in the monsoon belt, and its flow is dominated by huge annual rainfall variation. Almost every year, enormous volumes of excess water cause damage to crops, dwellings, and economic functions. Alternately, there is a serious flow reduction in the dry season. Building infrastructure to coordinate water catchment and storage, and to begin to regulate flow, can provide the basis for fabulous long-term growth in the region.

At Phnom Penh, the Mekong becomes connected to Cambodia’s natural catch-basin, the Tonle Sap, alternately (depending on the season) feeding or being fed by the Great Lake. After the point of conjunction with the Tonle Sap River, the main stream divides into two forks, and as these twin streams continue south and enter Vietnam, they in turn fan out over a vast, fertile delta, emptying into the South China Sea through numerous mouths.

Along with the dams shown in the Mekong Cascade, which can regulate flow out to sea, other projects can help hold back saltwater intrusion into the Mekong Delta. A Delta embankment system for dealing with seawater inflow, was

FIGURE 9  
Proposed 'Mekong Cascade' System of Dams and Reservoirs

