
Mekong River Basin

Potential world breadbasket

by Peter Ennis

Prior to the Vietnam War, the Mekong River basin was one of the world's most fertile breadbaskets and produced a sizeable amount of agricultural products for export, despite the lack of the most basic elements of modern agricultural production. Now, after 35 years of continuous war in the region, production lags behind the most minimal of potentials. The water resources of this huge river go virtually unutilized, with much of the water flowing through the Mekong delta into the South China Sea. Due to lack of capital investment, there is very little irrigation in the entire basin. There are many canals, but they are largely for drainage and water transportation, not irrigation.

Four riparian countries form the watershed of the Mekong River: Kampuchea, Laos, Vietnam and Thailand. The Lower Mekong basin covers more than 600,000 kilometers, comprising almost the whole of Laos and Kampuchea, one-third of Thailand, and two-fifths of southern Vietnam. Were these countries to join together to harness the power of that resource, not only would it provide a foundation for their modernization, but it would provide a context for the settlement of the political tensions that continue to plague those nations.

Plans for the development of the Mekong River basin have existed since the late 1950s. Studies have been carried out by United Nations-sponsored task forces, the U.S. Bureau of Land Reclamation, and other organizations; yet for political reasons the plans have not been implemented. The most comprehensive plan to date for the development of the Mekong River basin was drafted by a United Nations team, and is titled "Report on Indicative Basin Plan for the Lower Mekong Basin." The recommendations presented here are largely based on the United Nations study.

A plan to control the Mekong River

A program for developing the Mekong basin must address the serious lack of transportation infrastructure in the region, the near-total lack of mechanized agriculture, and the problem of torrential rains during the May-September monsoon season alternating with a very dry climate for the rest of the year.

The key question is how to control the waters of the Mekong, not a very difficult or expensive task. The main

stream of the river could be controlled with two dams, one at Pa Mong, and one in Kampuchea, at Stung Treng. Water control would allow use of high-yield varieties of rice, which depend on precise control of water supplies, fertilizer use, etc. Vietnam, which now produces some 5 million tons of rice per year, estimates it could produce 20 million tons under such conditions.

Two additional dams would be important as a source of electricity generation: the Sambor dam in Kampuchea and the Upper Thakhek dam in the area of the Thailand-Laos border. These four dams, all on the main stream of the Mekong, would be able to control flooding, provide irrigation, and thus make possible double- and triple-crop agriculture in the delta.

There is an additional proposal to build a dam at the mouth of what is called the Great Lake in Kampuchea, which acts as a natural reservoir for the Mekong. Out of the lake comes the Tonle Sap river, which joins the Mekong at Phnom Penh. During the rainy season, the lake fills up, and during the dry season, the waters flow into the delta. The proposal is to put a dam with sluice gates on the lake, to provide greater control over the water flows than occurs naturally.

Once upstream control is provided on the Mekong, the next task is to build dykes for flood control along the river. Dykes are also needed all the way around the coast of the delta, to prevent sea water intrusion. This would provide for year-round irrigation.

The power generated by these dams would be very significant, approximately 20,000 megawatts, with 5,000 MW provided by the Pa Mong dam and 7,200 provided by the Stung Treng dam. Some of this power would be transferred to Thailand. Thailand would benefit from the entire plan, partly through irrigation of its northeast sector, a Mekong watershed area where tributaries are located.

Together with the main-stream development and the development of the delta, a series of projects would involve controlling the flow of the tributaries into the Mekong. When this was originally drawn up by the United Nations-sponsored task forces, they considered both a short-range and a long-range plan: the first 10 years, from 1970 to 1980, were intended to be mainly tributary projects, with the large-scale projects coming on stream between 1980 and 2000.

The projects they outlined could increase food production from 12 million tons at that time to 37 million tons by the year 2000. Other experts consider such figures to be very conservative, reflecting a lower estimate of possible mechanization and fertilization of agriculture. But even as a baseline, such figures mean the Mekong basin could one again become a breadbasket.

The total capital cost of this project, as estimated by the United Nations task force in 1970, was \$12 billion. The total investment required was estimated at \$30-\$40 billion over a 30-year period. Other experts have estimated higher investment costs, but the investment required for the projects would be remarkably small compared to the enormous returns.