the project, offset construction and related financing costs. Any revenue flow to the Thai government from associated port and industrial development would be a net benefit. The sum total of such benefit is difficult to estimate but would almost certainly amount to several billions of dollars per annum within less than five years of project completion.

- While under construction, one conservative estimate is that the canal project would create between 3 and 5 million new and relatively high-skill jobs *directly* and up to 8 million new jobs proliferating through various branches of industry.
- The type of new jobs and industries created and stimulated by canal construction are precisely of the right kind to repair the above-analyzed structural deficiencies of the Thai economy. Stimulation will be primarily in the heavy-industry and machinery production sectors. The energy requirements of the canal zone will also at long last get the nuclear-energy industry in Thailand on its feet. Nuclear energy is certainly the most plausible answer to meeting the energy requirements in the canal zone and the southern region of Thailand in general.

The Thai economy: an historical insight

The Fusion Energy Foundation chose to analyze the Thai economy in comparison to the Korean for two reasons. First, these are Asian countries of roughly the same dimension, and at their take-off point for economic development in the late 1950s they exhibited broadly similar economic characteristics, though Thailand was more agriculturally oriented. Second, while both countries showed strong economic growth as measured in GNP terms throughout the 1960s and '70s, Korea succeeded in transforming its economy to a point where it is now on the verge of becoming a modern industrialized nation (the first one to do so since Japan), whereas Thailand did not.

To a historical observer looking not only at relatively short-term developments, this must come as something of a surprise. Thailand has had the advantage—based largely on the enlightened and courageous political leadership of Kings Rama IV and Rama V during the 19th century—to be one of only two nations outside Europe (the other being Japan) never to have been subjected to debilitating colonial rule. That condition was attained and secured precisely because Kings Mongkut and Chulalongkorn in the critical 1850-1910 period realized—as did the leaders of the Meiji Restoration in Japan—that only aggressive modernization would allow the country to build its strength and preserve its independence. Why then did Thailand in the post-World War II period fail to turn those nation-building impulses to its advantage and build a modern industri

Many external reasons for this could be cited, first and foremost a wholly unimaginative and later disastrous U.S. Pacific and Southeast Asia policy. Still, Japan and Korea succeeded where Thailand did not, and external factors alone do not explain that lack of success. We can identify three principal culprits, who misguided Thailand's economic development at critical points: 1) the International Bank for Reconstruction and Development (World Bank); 2) significant factions of the economics faculty of Thammasat University; 3) Dr. Puey Ungphakorn and his creation, the National Economic Development Board (NE[S]DB). To quote from a laudatory collection of articles by and about Puey, *A Siamese For All Seasons*:

> In 1957 the World Bank, at his [Puey's] instigation, was asked to send a study team to Thailand to prepare a general development program. Its recommendations resulted in creation by the government in 1959 of the National Economic Development Board (NEDB) as the agency responsible for drafting the First Six-Year Plan (1961-66).

Puey, a London School of Economics product, became a member of the Executive Committee of the NEDB, Governor of the Bank of Thailand, and Dean of the Faculty of Economics, Thammasat University. He was largely responsible for the drafting and execution of the First Six-Year Plan, based on World Bank recommendations. And he found (or helped create?) the political circumstances for

Thailand does not have to stick with the IMF's anti-industrial program. Shown is the July-August 1984 cover story of the magazine of the Fusion Energy Foundation.

- The canal zone with its port and industrial facilities will become one of the badly needed alternative development centers to the Bangkok region. Comparison figures from the Europort development of Rotterdam in the Netherlands, from the expansion of the ports of Yokohama, Kobe, and Singapore demonstrate that sizeable percentages of a country's total labor force will be attracted to port and industrial development associated with it.
- It would be most desirable to locate in the canal zone certain high-technology industries not presently installed in concentrated form anywhere in the world. We reference here Dr. Willard F. Libby's concept of a nuclear industrial zone ("Thailand's Kra Canal: Site for the World's First Nuclear Industrial Zone," *Orbis*, Spring 1975). Such a development should provide the necessary and desirable impetus for scientific manpower development in Thailand that is presently sorely lacking.

We conclude with a plea for no lawyers and social scientists in the canal zone (no anthropologists in particular!).

the plan's successful implementation. As the World Bank's report (*A Public Development Program for Thailand*, Baltimore, 1959) proudly proclaims in its preface:

> The last members of the Mission left Thailand early in July 1958. Since that date much has happened in Thailand of relevance to the problems discussed in the Mission's report—especially after October 1958 when the Revolutionary Party under Field Marshal Sarit Thanarat assumed governing responsibilities. *Indeed, in some ways the Governent appears to have taken action on the lines recommended by the Mission* [emphasis added].

So, what were their recommendations? We single out one for special attention:

> There is, clearly, little care for a "forced draft" program of industrialization based on Government investment and operations in industry. . . .
>
> This may mean that for some time to come ambitious schemes for starting iron and steel mills, fertilizer plants and other heavy industries will have to be shelved.

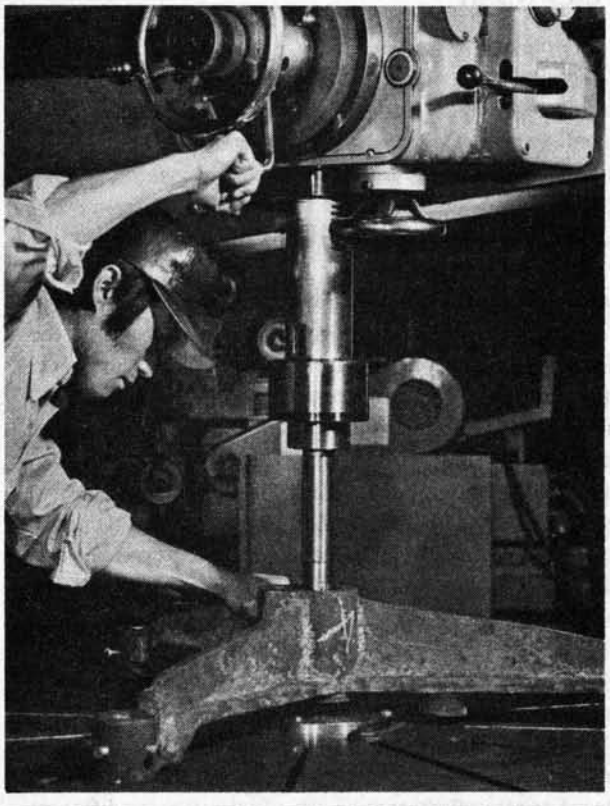
The financial details of the World Bank Mission's (and First Six-Year Plan's) "Proposed Expenditures on Public Development" further elaborate this policy. Under the rubric of Capital Expenditure for Industry, we find the following proposed time sequence of expenditures (in millions of baht):

1959	1960	1961	1962	1963
100	30	40	50	60

The government of Korea adopted exactly the opposite of the Puey/World Bank policy. Unfortunately, Puey's decisive influence over Thai Government economic policy was permitted to continue until Oct. 6, 1976, when he was finally forced into (well-deserved) exile in his favorite nation, Great Britain.

Here was a typical British economist who misguided the fate of the Thai nation. Had he lived in the 19th century and had Kings Mongkat and Chulalongkorn been foolish enough to give him free reign, Dr. Puey would have become the principal administrator of the British Colony of Siam.

It is not known to this writer what role if any Puey played in the 1973 "student uprising" which toppled the Thanom Kittikachorn government. But the Thanom government had agreed in principle that the Kra Canal should be built, and preliminary studies had been completed. Puey and the majority of the NESDB were well known for their opposition to the project.



Korea, which rejected the policies of the IMF and World Bank, now has a skilled labor force and 23 times the number of scientists and engineers that Thailand does.