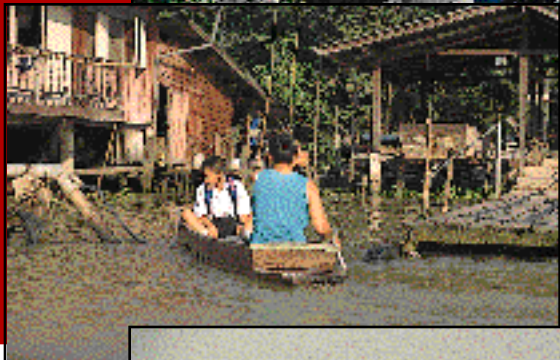




FROM TIP-TO-TOP of the MALAY ... PENINSULA the STUDY ... TOUR ENDS

BY DONALD G. MEADOWS

A view of Singapore; the wives of study tour members; paddling home in Bangkok; river traffic in Bangkok.

Stops in Singapore and Bangkok add further insights to distinguish Asian countries.

The formal close of TAPPI's Asian Study Tour took place in Singapore, though a contingent ventured on to Bangkok, Thailand, for one last meeting before heading home.

Singapore provided a marked contrast to many other parts of Asia—and the Western world. Despite criticism from some for its own intolerance of criticism and harsh treatment of



Samchai Wongvichienkul dishes out a Thai specialty; Bo Fahlin (left) and Wayne Gross (right) outside Singapore's Raffles Hotel; Kunio Hata at Singapore's Botanic Garden.

lawbreakers, the island nation is undoubtedly prosperous and successful in many ways. In a word, it is a very "managed" place to live. The number of cars allowed is regulated, the number of lawyers is regulated, the number of doctors is regulated. The severe penalties for crimes do serve to keep city streets among the safest in the world, and the whole place has an orderliness to it.

Singapore was heavily bombed during World War II and then occupied by the Japanese. It has since rebuilt, with towering office buildings in the downtown financial district, a modern and efficient subway system, bustling port facilities, and lots of shops and attractions to draw tourists. Many signs of the island's Chinese, Malay, and Indian heritage can be found. Raffles Hotel (birthplace of the Singapore Sling), the Supreme Court, and the Singapore Racquet Club are among the many reminders of the British colonial period and the influence it still has on day-to-day life in Singapore.

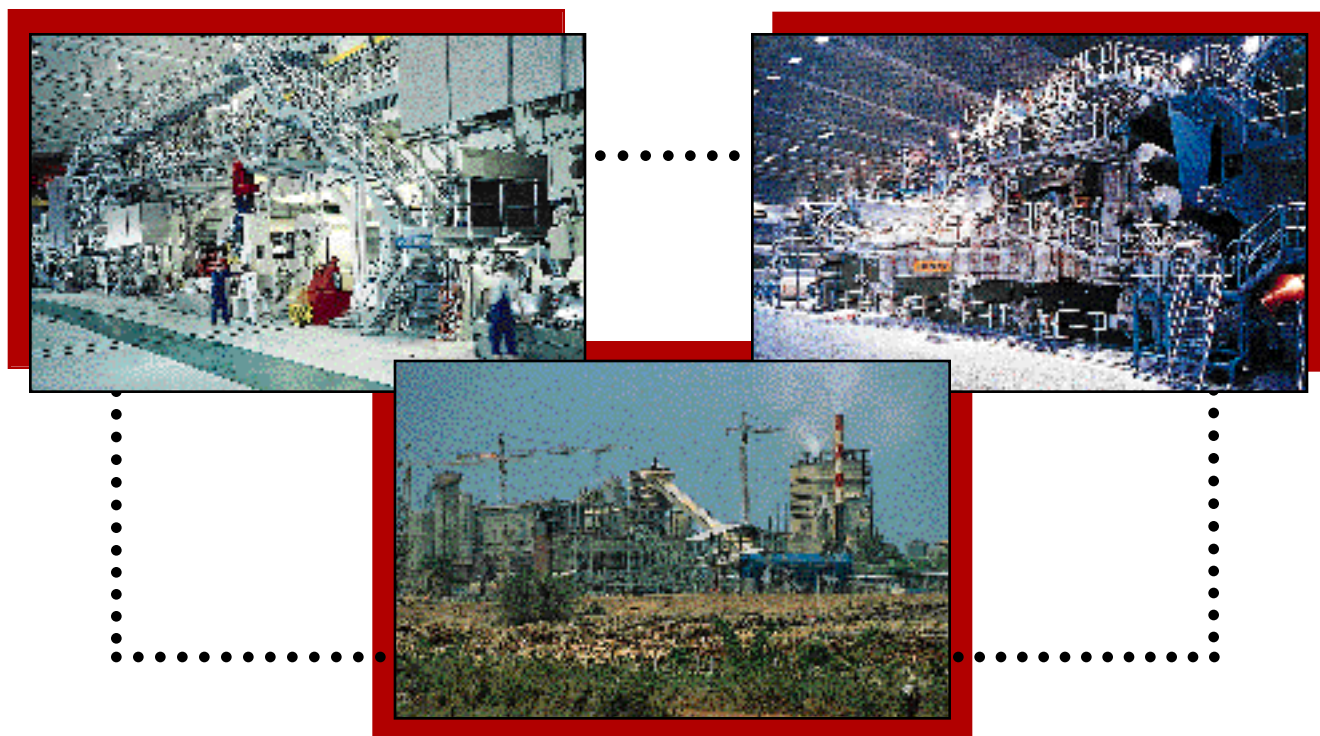
The island can boast of having some of the finest zoos and gardens in the world. The Botanic Garden is renowned for its orchid collection (as is Mandai Orchid Gardens) and for spawning Malaysia's rubber industry. Jurong Bird Park houses 7000 birds of 600 species, including penguins and assorted birds of prey. Underwater World is Asia's largest tropical aquarium, and two parks are home to more than 3500 crocodiles.

A unique attraction is the Night Safari, a zoo tour that operates from dusk to midnight. The display is divided into eight representative regions in which animals such as Asian elephants, rhinos, tigers, sloth bears, giant anteaters, and 100 other species seem to roam relatively unhindered. Because so many animals are nocturnal, the displays allow visitors to see them when they are more active.

Thailand

In contrast with the very orderliness of Singapore, Thailand's capital of Bangkok is infamous for its traffic congestion and its exotic temptations. The city's official name, Krung Thep, means "City of Angels." It's also sometimes called the "Venice of the East" because of its many canals. The Chao Phya River is a heavily traveled water thoroughfare from which much of the city has expanded eastward. Ferries take students and office workers from one shore to the other as elongated water taxis powered by V-8 engines on pivots dart past freighters heading up and down the river.

Golden temples, exquisite palaces, and reclining Buddhas are abundant reminders that most of Thailand's 60 million people are Buddhists. The country is governed by a constitutional monarchy in which the military has been able to exert an influence.



Thai Paper's off-machine coater (top left) and PM4 (top right); Phoenix Pulp & Paper.

Back to business

In 1990, paper production in Thailand neared 1 million tons/year. In 1995, production is expected to exceed 2.5 million tons/year, with another 500,000 tons of capacity being added to that in the next two years. In those five years, pulping capacity has doubled, to an estimated 309,000 tons/year. Obviously, the Thais have been busy (see Fig. 1).

Last year, projects at Phoenix Pulp & Paper and the Thai Paper Co.'s Banpong mill were among several recent endeavors contributing to the rapid increase in capacity. Phoenix was increasing its pulping capacity to 200,000 tons/year and was looking to add a paper machine to integrate the mill.

At the Banpong mill, a 3.4-m Valmet twin-wire paper machine (PM 4) began production last summer. The machine has a capacity of 100,000 tons/year. The coated paper line also includes a Jagenberg off-machine coater, winder, and rereeler. The 3.3-m coater has a capacity of 280 tons/day.

Currently in the works is Advance Agro's 200,000 tons/year pulp mill, scheduled for startup in early 1996.

Somchai Wongvichienkul, vice manager of planning for Siam Pulp and Paper Public Co., Ltd., welcomed the TAPPI visitors on behalf of Adul Udol, president of the Thai Pulp and Paper Industries Association (TPPIA) and president of the Federation of Thai Industries (FTI) Pulp and Paper Industries

Club Committee. The office at Siam serves as the secretariat for TPPIA and the ASEAN association.

The Thai Pulp and Paper Industries Association was founded in December of 1976. An offshoot, the Pulp and Paper Industries Club, was founded in February 1990. The Club's 15 member companies also belong to TPPIA, which has 23 members in total.

The objectives of the two groups are as follows:

- Promote the coalition of the pulp and paper industries
- Assist members in resolving problems facing the industry as a whole
- Promote process quality standards and encourage process improvement
- Work with government to promote high standards within the industry
- Serve as arbitrator for industry disputes.

During 1993, TPPIA worked with the country's Forestry Department and Ministry of Agriculture and Cooperatives to resolve forest allocation problems to allow local people and industry to develop some form of forest plantations. The association also helped organize a seminar on environmental issues and progress in Thailand.

The ASEAN Pulp and Paper Industries Club was founded in April 1978 to represent the interests of Thailand, the Philippines, and Indonesia. Malaysia became the fourth member country in November 1978, and Singapore was admitted in June 1980. In November 1991, the group changed its name to the Federation of Pulp and Paper Industries (FAPPI). Its members include the Indonesian Pulp and Paper Association; the Malaysia Pulp and Paper Manufacturers Association; the Philippine Pulp and Paper Association, Inc.; the Singapore Pulp and Paper Manufacturers; and the Thai Pulp and Paper Industries Association.

The objectives of the group are as follows:

- To promote economic cooperation and coordinate industry efforts within the region
- Undertake, coordinate, or encourage research to identify opportunities, projects, or potential products
- Plan and implement programs and projects to promote intra-ASEAN trade of exportable pulp, paper, and paper products
- Advise and lobby government on rules and regulations to benefit the industry
- Serve as a conduit for communications between members
- Harmonize expansion plans for the industry
- Serve as an identified body representing the industry in dealings with government, other industries and institutions, and the public within and outside the region
- Make the pulp, paper, and paper products industries an instrument of economic development for the region.

Toward those ends, the members exchange market information, organize study missions and seminars, work to develop unified quality standards, study common problems

affecting industrial growth, etc.

As in many other Asian countries, many mills are dependent on the import of OCC and other reclaimed fiber from the United States and Europe for their pulp needs. Surprisingly,

expansion plans are based on the notion that additional imports of recycled furnish will be available. TAPPI members wondered why more effort wasn't being devoted to developing local fiber sources.

A paper collection center was established near Bangkok, but generally such recycling efforts are impractical for now outside of Bangkok and a few urban areas, Wongvichienkul explained. In addition, government policies

have restricted the amount of land individuals or companies can own. Consequently, it's been difficult to establish plantations to supply the pulp mills. It is possible to contract with farmers to grow eucalypti, bagasse, bamboo, or straw on land unsuited to rice production—or even instead of food crops. Phoenix has put a lot of effort into developing such arrangements. Eucalypti seem to be the favored locally grown tree species, though certain species of pine (slash, Caribbean, loblolly) can also be grown and harvested for long fiber within a 12–15-year period.

Another problem that has hindered Thai companies is a lack of technically trained workers. In part, the problem is “that good engineers don't want to work in pulp and paper,” Wongvichienkul said. Top engineering students often continue on to get an MBA or business degree. Many member companies end up buying their technology and know-how from Europe or the United States. TAPPI representatives offered suggestions on how the Thai association might attract more students to the pulp and paper industry. Those included scholarships and internships at mills. Currently, the Thais have no plans to establish a pulp and paper technical association, though technical training is an admitted concern. ■

Meadows is editor of Tappi Journal.

▼ (Figure 1) Thai paper production capacity

