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THE MODERNIZATION OF SUGAR PRODUCTION IN SOUTHEAST ASIA, 1880–1940

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ABSTRACT. Southeast Asia is an ideal location in which to study the modernization of sugar production, given that the presence of six colonial powers makes comparisons possible. The Dutch took the lead in modernizing the region's sugar industry by breeding new varieties of sugarcane and by introducing central sugar factories. The article takes these two innovations as indexes of modernization and traces their diffusion through the region. It demonstrates that colonial policy largely determined the speed of acceptance of these innovations. Modernization made the sugar industry dependent on the continuing success of scientific research, restructured the relations between worker and factory, and, by supplanting the previous system of sugar production, Chinese in origin, changed the human geography of the region. *Keywords:* central factories, Dutch, modernization, Southeast Asia, sugarcane varieties.

This study revisits discussion of the role of colonial policy in the modernization of the sugar industry in Southeast Asia (Figure 1). The material presented does not change the broad outline of the conclusions in the literature. Of the six colonial powers in the region, the Dutch and the Japanese strongly supported modernization, quickly turning their respective colonies of Java and Taiwan into major sugar producers. The Americans in the Philippines, building on what little the Spanish had accomplished, rather more slowly created an important sugar colony. The British and the French, given that both already had ample sources of sugar, turned their efforts in Malaya and Indochina to other cash crops, such as rubber. Formal colonial rule did not extend to either Thailand or China (see Galloway 1989, 208–217 and the references therein). However, the new material advances the discussion by permitting it to be set in new contexts. The overarching context is colonial science, a relatively new and increasingly important field that examines the use of science in colonial government (Drayton 1999, 2000). Modernization of the sugar industry came about through introduction of Western science, technology, and

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