

## **Bituminous Coal Prohibition: Air Pollution from Coal Burning and Coal Smoke Prevention Campaign in Japanese Colonial Taiwan**

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### **ABSTRACT**

The excavation and utilization of coal is the driving force behind industrial civilization and industrialization. However, burning coal emits a large amount of black “coal smoke” that is harmful to the human body and the environment. The end of the 18th century to the mid-20th century was the worldwide “smog era”. At that time, Taiwan was under Japanese colonial rule and the large-scale mining of coal in Northern Taiwan provided a new cheap energy source for household cooking in the north as well as industries and transportation throughout the island, causing widespread air pollution from coal burning.

At the beginning, people hated only the dirt and inconvenience caused by the soot and smoke, and thus implemented control primarily on chimneys. Then from the mid-1910s, there had been increasing emphasis on the health hazards of coal smoke, which eventually led to a ban on “bituminous coal” (called “namasekitan” before WWII) — a kind of cheap non-carbonized coal containing many impurities. Dadaocheng and Wanhua, where many Taiwanese lived and where large quantities of coal were used, were regarded as the source of coal smoke. In 1923, 1927, and 1932, the Taiwanese gentry in Dadaocheng launched the “Coal Smoke Prevention Campaign”, respectively. They adopted scientific analysis, prohibited bituminous coal using anthracite or mature coal instead, and improved kitchens and stoves. Demanding for health, economic and aesthetic enhancement, the campaign spread to Taipei, Keelung, and Taoyuan from 1935 onwards, until the war brought it to a halt. The air pollution caused by coal burning in Japanese colonial Taiwan was a local reflection of the global coal smoke problem and smoke prevention efforts. While the anti-smoke efforts launched during the Japanese colonial era seemed successful, they were merely relocating the pollution source from the city to the country and turning black smoke into white, which obscured the real issues of coal smoke. Despite far from a complete eradication of coal smoke, the smoke prevention efforts did at least improve the “visible” air pollution.

**Keywords:** Coal, Industrialization, Air Pollution, Household Cooking, Dadaocheng