

Preface

This book is the first volume in a monograph series published by the Socio-Economic History Society, Japan, and Springer. It contains four recent articles on topics related to the history of energy and the environment in Japan, China, and Britain, and four short book reviews on recent academic works published in Japanese and English. Since they are English language versions of material originally published in Japanese, some revisions have been made to render them accessible to this new readership.

Environmental history is a major theme in global history. The relationship between economic growth, ecological destruction, and environmental pollution is clear. For example, timber played a vital role in industrial development as an energy resource for iron, pottery, and glass manufacturing, and as an industrial material for railway sleepers, pit props, and telegraphic and electric poles, as well for construction. However, the rising demand for timber led to deforestation on a global level, producing natural disasters such as flooding, and a drastic reduction in biodiversity.

The first two articles in this volume approach different aspects of the demand for timber in modern Japan. Chapter 1, by Sugiyama and Yamada, examines silk reeling, a traditional industry that was Japan's most important export industry until 1929. They analyse the relationship between deforestation and the development of the silk reeling industry in a district of Nagano Prefecture (central Japan) from the 1870s to the 1900s. The increasing energy demands of the industry caused the deforestation of common lands, producing a shortage of firewood. Reforestation was unsuccessful and it became necessary to transport firewood from neighbouring districts. Over time, the improvement in quality of steam boilers and the decline in the relative prices of coal relative to firewood facilitated a shift from firewood to coal.

By contrast, Chap. 2, by Yamaguchi, looks at timber in relation to the development of railways, a technology newly introduced from the West. Little research has been done on the use of timber as an industrial material. Demand for railway sleepers increased along with the formation of railway networks all over the world. Yamaguchi's case study of the supply of timber for use as rail sleepers in the

Japanese national railway network during the prewar period is therefore a unique contribution to the field of environmental history. In Meiji, Japan, railways were first introduced as a symbol of Western culture and came to play a crucial role alongside cotton spinning as one of the leading sectors in early industrialization. Japan's total railway mileage increased from 184 km in 1880 to 6,200 km in 1900. Budgetary reasons hindered government development of railways, leaving private railways to take the leading role in the railway boom of the 1880s onwards. After the nationalization of major railway lines that took place in the years following the Russo-Japanese War of 1904–1905, however, the government share of both cargo and passenger transportation rose to 80 %.

Chapter 3, by Ueda, is a methodological survey of the history of ecology and the environment in China. Since the terms used to express the concepts “ecology” and “environment” in different languages necessarily developed in different historical and cultural contexts, it is not surprising that their nuances in China and Japan differ from their nuances in Europe and the United States. In China, the terms used to describe “ecology” and the “environment” entered via Japan. In 1980, a term equivalent in meaning to “ecological economics” appeared. In the 1990s, reflecting the spread of pollution in China itself and the growing awareness of environmental problems all over the world, a term equivalent to “ecological environment” was also created. After examining this process, the author suggests the need for a new field of “socio-ecological history” that will bring together socio-economic and ecological history.

With Chap. 4, by Akatsu, we turn to Japanese research into European economic history. He analyses parliamentary debates in order to show how the British Smoke Nuisance Abatement Act of 1821 incorporated the interests of both politicians, landlords, and industrialists. It is not surprising that the act was promoted by landowners and the urban propertied classes, since they were damaged by air pollution. Factory owners in some industries responsible for pollution, such as textiles and food, also supported it. They hoped that the act would reduce energy costs by introducing new smoke prevention technologies. The act of 1821 did not itself establish any regulations against pollution. Even so, it signaled recognition by both government and parliament that air pollution was something that should be regulated by law. In that sense, it laid the basis for more interventionist legislation in the 1840s.

In Japan, high-quality research monographs and articles are published every year. Yet, while scholarly works originally published in European languages are often translated into Japanese, it is only in very rare cases that the reverse occurs. This has led to a regrettable knowledge gap for scholars who are unable to read Japanese. In an effort to address this imbalance, this volume also introduces reviews of recent academic works published in Japanese as well as a review by a Japanese scholar of an English language book that has recently been translated.

The four reviews are all evaluations of books on energy and the environment. They are a history of environmental problems in Tokugawa Japan by Andō Seiichi (Chap. 5); a study of the development of the Japanese electric power industry by

Kikkawa Takeo (Chap. 6); a volume on energy and corporate activities in modern Japan edited by Ogino Yoshihiro (Chap. 7); and a translation of J. R. McNeill's *Something New under the Sun* (Chap. 8).

Finally, I must thank Dr Koichi Inaba who translated all the book reviews, Dr Jeff Kurashige who translated Chap. 3, and Ms Ruth Fallon and Ms Louisa Rubinien for checking and improving the drafts.

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