

# Soil Fertility Decline in the Tropics with Case Studies on Plantations

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# Preface

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In 1987, I was employed as a pedologist-trainee at the National Soil Service in Tanzania as part of my undergraduate training. Detailed soil surveys and land evaluations were carried out on several sisal plantations and an oil palm plantation. After my BSc graduation, I conducted a soil survey of a tea plantation in Congo (Zaire) and returned to Tanzania for detailed soil surveys of sisal plantations followed by short assignments on tea, cocoa, rubber and oil palm plantations in Indonesia. Some years later I worked in Papua New Guinea, where I fostered my interest in on-plantation research, and a study on soil changes under sugarcane was carried out.

During those years I developed three important passions which helped me in the writing of this book and which also form its cornerstones: soils, the tropics and plantation cropping. I was intrigued by how these were linked and although the conversion of primary forest into agricultural plantations is often regarded as destructive and politically and morally incorrect, the beauty of large-scale plantations, the history, neatness and the efficiency in mass production fascinated me intensely. At the same time, I have often noticed the ease with which natural resources were taken for granted and wondered how soil conditions were affected under permanent cropping. After working in Papua New Guinea, I felt the time had come to contemplate on the years in the field, and that reflection forms the body of this book. Although there are books focusing on plantation agriculture, there is no book solely dedicated to the soil under plantation cropping. This, in combination with the need for hard data on soil fertility decline in the tropics, are the main gaps that this book aims to fill.

The groundwork for this book formed the data and literature brought together in my PhD thesis. I owe a great deal of gratitude to Professor Dennis Greenland and Dr Stephen Nortcliff of the University of Reading for their supervision and guidance during the preparation of my thesis. A special word of thanks goes to my friend and colleague Dr Hans van Baren for his overall assistance and suggestions to improve the text. My director, Dr David Dent, is thanked for critically reading the text and his support. Most of all I would like to thank Ariane who has been with me during the years in which my passions developed. She was part of it and made it all possible. I dedicate this book to her.

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