## **10** Towards a Greener Palm Oil Industry: Sustainable waste management practices in Malaysia

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This chapter analyses sustainable waste management within Malaysia's oil palm sector, focussing on the environmental issues associated with by-products such as palm oil mill effluent (POME), empty fruit bunches (EFBs), and palm kernel shells (PKS). If not properly managed, these wastes exacerbate pollution and emissions, endangering the environment and tourism. Essential certifications-Malaysian Sustainable Palm Oil (MSPO) and the global Roundtable on Sustainable Palm Oil (RSPO)—are pivotal in implementing sustainable practices. By complying with these requirements, Malaysia's palm oil plantations may reduce waste and establish the country as an environmentally sustainable destination. This chapter examines advancements in waste conversion, including biogas derived from palm oil mill effluent (POME) and biomass from empty fruit bunches (EFBs), thereby promoting a circular economy that bolsters sustainability. Notwithstanding these developments, the industry encounters hurdles, including financial and technological constraints. Cooperation among government, industry, and local communities is crucial for executing successful waste management strategies, connecting Malaysia's palm oil business with environmental preservation and sustainable tourism objectives.

## Introduction

The oil palm industry is an essential element of Malaysia's economy, notably contributing to national revenue, employment, and foreign exchange earnings. Malaysia, a leading global producer and exporter of palm oil, has oil palm farms spanning millions of hectares and employs over 600,000 workers, with additional individuals dependent on associated sectors like transportation and processing. The swift proliferation of oil palm farming has resulted in environmental issues, especially concerning the management of waste produced by palm oil mills.