Bern University of Applied Sciences
School of Agricultural, Forest and
Food Sciences HAFL

HAFL Master's Thesis Abstract

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English Title: **Analysis of transport inefficiencies in the cocoa value chains in Ivory Coast from farm gate to export harbour: is sustainability possible?**

English Summary:

Abstract

This thesis examines transport inefficiencies and the sustainability of cocoa value chains in Ivory Coast. Based on the findings, actionable recommendations are suggested to improve the sustainability of cocoa transport from farm gate to export harbour. This thesis has two main parts. First, there is a literature review on the current knowledge regarding the transport inefficiencies in the cocoa value chains in Ivory Coast from farm gate to export harbour. Where contextually relevant, current trends in global value chains are discussed. Research material includes Bern University of Applied Sciences lectures, case studies, scientific databases and documents in the public domain. The second part covers the results of research, conducted on-site in Ivory Coast. Qualitative and quantitative data were gathered, based on a 57-question questionnaire, and in-depth interviews with key stakeholders. Respondents represent two main cooperatives in Ivory Coast, Société Coopérative des Planteurs d'Iratéké (SOCOOPI) and Société Coopérative Agricole Badéya Soubré (SOCOOABAS). Different villages were visited and represented in the research, namely Djihimbo, Iratéké and Konédougou. Special function actors also participated as respondents and are from the Soubré to San-Pédro and Grand-Béréby to San-Pédro axes. Transport costs are calculated and descriptive statistics are used, based on primary and secondary data. The economics of cocoa bean transport is investigated. Results related to the three research questions show that the cocoa value chains function within a combined micro, meso and macro business enabling environment. The micro environment holds the cocoa value chain that is the focus of this study. The steps of the cocoa value chains in Ivory Coast flow horizontally and sequentially. Planters, cooperative management, exporters, ports, chocolatiers, and supermarkets are the major actors in the different steps of the cocoa value chains with each actor also having its own value chain. The lines that these actors engage in, flow vertically and are called primary and support activities. These lines serve the purpose of achieving competitive advantage. The micro environment is surrounded by the meso environment including

medium-sized actors and the macro environment, in turn, surrounds the meso environment including larger entities.
Trucks and motorcycles are the dominant forms of transport from farm gate to export harbour. Significantly, there is no railway system that could efficiently be used in the cocoa value chain. Transport inefficiencies include insufficient village collection points, blocked roads during rain due to lack of profiling and tar, excessive reparations costs due to potholes and low-quality roads, excessive pollution caused by trucks, “pisteurs” lowering the value chains’ credibility, and a lack of bank branches at junctions where trading takes place. Sustainable transport is measured using the United Nation’s criteria of which the results show that transport is mostly unsafe, unaffordable, inaccessible, inefficient, not resilient and that the emission of carbon and other gases are not sufficiently minimised. Actionable recommendations include addressing inefficiencies through policy measures, financing and technological innovation. In conclusion, in its current form, cocoa transport in Ivory Coast is unsustainable. With the correct implementation of actionable recommendations, there is significant potential to improve the sustainability of cocoa transport from farm gate to export harbour.

Keywords: Transport, Sustainability, Cocoa Value Chain, Ivory Coast

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