

## **PREFACE**

### **1. Background and Objective of the Research**

Thailand, Indonesia, and Malaysia together produce about 70 percent of the world's natural rubber (NR). Recently, the market for NR has been in a state of excess supply. This is because production in Cambodia, Myanmar, and Viet Nam has been increasing and, after 2011, demand for NR in China has been subdued. The price has suffered a continual decline since 2011, while NR stocks in Thailand have been increasing.

In order to stabilise the production environment of NR in Thailand and other Asian countries, it has become important to improve the production and distribution environment so that farmers can tolerate competitive and changing circumstances. We study the types of support for farmers that would be effective against price volatility of NR.

NR is used to make medical gloves, as well as tyres for vehicles and aircraft. The Thai government is also considering making use of NR in new applications, such as road paving and sports tracks. This study also looks into the possibility of increasing demand for NR through widening its various uses.

This research investigates various structural issues of the Thai NR industry, from the supply/demand structure to the distribution structure, and also evaluates past and present policies in order to develop policy recommendations for structural reforms aimed at raising the competitiveness of NR and mitigating the impact of price fluctuations on farmers.

### **2. Research Methodology**

In this research, intensive interviews with government agencies concerning NR policy, including the Ministry of Agriculture and Cooperatives, the Rubber Authority of Thailand, provincial ORRAF branches and central markets, were conducted between January and April 2016, in order to better understand the policy issues and validate policy recommendations. In addition, field surveys in the major NR producing sites were conducted in Hatyai in the South and in Nongkhai in the Northeast. Interviews with users of NR, mainly Japanese tyre makers, were conducted to evaluate the competitiveness of Thai NR and to understand market and technological factors affecting the structural changes of NR products.

### **3. Items in the Research**

In Chapter 1, we provide a summary of survey results that are discussed in more detail in Chapters 2–5, followed by major policy recommendations.

In Chapter 2, we analyse NR production and the trade structure of NR in Thailand compared with other major producers and analyse why Thai NR production has been more adversely affected by the decline in the rubber price than other countries. The largest factor may be attributable to the past rapid expansion of NR plantations in the early 2000s and Thailand's increasing dependence on the Chinese market through exports of Standard Thai Rubber (STR), a medium-grade rubber. In this chapter, the research analyses the competitiveness of Thai NR compared with neighbouring countries such as Indonesia.

We analyse ways of improving competitiveness, by considering the possibility of mechanisation of the major products. We find that Ribbed Smoke Sheet (RSS) has little scope for mechanisation, while TSR is already extensively mechanised. Instead, production of crepe rubber, more of a premium grade than TSR, could be increased through mechanisation support to farms and at the cooperative level, especially in the Northeast.

In Chapter 3, the distribution structure of Thailand is analysed and compared with Malaysia and Indonesia. We find that the Thai distribution structure is rather complex, as there are several different distribution routes (collectors, cooperatives and local markets) and several chains of distribution (several chains of collectors from local collectors to city collectors). Despite the low share of central markets in the total number of transactions, the establishment of central markets has been instrumental in increasing the bargaining power of farmers due to their role in setting the market reference price.

In Chapter 4, recent NR government policies are studied, including the Master Plan, subsidies, the role and use of CESS, and the Rubber Authority of Thailand (RAOT), a newly established authority to plan and execute NR policy from 2015 onwards. The impacts of previous government subsidy policy are also discussed.

In Chapter 5, we introduce a discussion with Thai government officials on options trading, as a means of policy support to mitigate the risks to NR farmers of price fluctuations.

In Chapter 6, we discuss the unique environment of smallholders in the South, which makes it difficult for them to convert to other crops.

In Chapter 7, major policy proposals are discussed based on survey results in Chapters 2-6. These proposals are: in the short term, promoting purchased rubber in infrastructure usage; in the medium term, resolving the mismatch with Japanese tyre makers, introducing minimum price compensation, promoting differentiation through transparency/traceability; and in the long term, expanding rubber applications and developing the industry.